Napa Valley College
Student Housing Project

Initial Study / Proposed Mitigated Negative Declaration

August 12, 2020

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Napa Valley College Student Housing Project

Prepared for:

Napa Valley Community College District
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Napa, CA
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August 12, 2020

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1. Project Information

1.1 Introduction and CEQA Requirements

The Napa Valley Community College District (College), serving as the California Environmental Quality Act (CEQA) Lead Agency, has prepared this Initial Study to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of the Napa Valley College Student Housing Project (hereafter referred to as the "project"). The College is considering a student housing initiative aimed at providing a valuable housing resource to its community of students. The project is currently programmed for CEQA adoption in Fall 2020, and Division of the State Architect (DSA) approval in Summer 2021.

The purpose of this Initial Study is to provide a basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration or a Negative Declaration. This Initial Study has been prepared to satisfy the requirements of CEQA (Public Resources Code, Div 13, Sec 21000-21177) and the CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387). Section 15063(d) of the State CEQA Guidelines states the content requirements of an Initial Study as follows:

1. A description of the project including the location of the project;
2. An identification of the environmental setting;
3. An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
4. A discussion of the ways to mitigate the significant effects identified, if any;
5. An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls;
6. The name of the person or persons who prepared or participated in the Initial Study.

1.2 CEQA Lead Agency Contact Information

The CEQA lead agency for the project is the Napa Valley Community College District. The contact person for the College is:

Matt Christensen, Senior Director, Facilities Services
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1.3 Project Background and Objectives

In 2017, the College submitted a Request for Qualifications for the development of unimproved land on the Napa Valley College campus for the purpose of residential communities for students, faculty, and staff. The objectives for on-campus residential housing are to provide an affordable, quality on-campus living experience; promote an even more engaged and diverse population; enhance campus engagement; support recruitment and retention of students, faculty and staff; and extend campus integration with the community. The proposed residential housing site is located near the College

campus entrance, north of the campus' roundabout entry point and along the west side of State Route (SR) 221/Napa-Vallejo Highway. The proposed residential housing project would include a mix of apartments and traditional dorm-style units, study rooms and social gathering spaces, a new vehicle connection and parking lot, new pedestrian connections, and new wastewater and storm water infrastructure. The residential housing project is expected to break ground in the summer of 2021 with a proposed move-in date for the fall semester of 2023.

1.4 Project Description

1.4.1 Project Location and Site Description

The project site is located on the Napa Valley College at 2277 SR 221/Napa-Vallejo Highway within the city limits of Napa, near the city's southern boundary (see Figure 1, Regional Location Map). The project would include improvements to a College owned parcel, Assessor's Parcel Number (APN) 046-450-054. Land uses to the west and south of the project site and the College include John F. Kennedy Memorial Park, which includes the Napa Golf Course, hiking trails, and recreational areas. The Napa Valley Vine Trail and Valley Wine Train / Union Pacific Railroad tracks are also located west of the project site, and further west is the Napa River and residential communities. To the north of the project site, across SR 121/Imola Avenue, is the South Napa Marketplace shopping center. East of the project site, across SR 221/Napa-Vallejo Highway, is the Napa State Hospital.

The existing project site is a gently sloping undeveloped lot with an approximately 52,000 square foot asphalt paved parking lot that serves the College (see Figure 2, Project Area). A Bay Area Air Quality Management District (BAAQMD) State/Local Air Monitoring Station is located within the parking lot, which would need to be relocated. No buildings are located on the project site. The undeveloped portion of the project site is primarily composed of native and non-native grassland. Riparian vegetation associated with Tulucay Creek[1] occurs adjacent to the site, which is composed of both native willow scrub with coast live oak on the edges of the corridor and an understory of Himalayan blackberry (*Rubus armeniacus*). A fire in July 2004 burned much of the riparian area adjacent to the site. The herbaceous grassland at the project site is composed of slim oats (*Avena barbata*), wildoats (Avena fatua), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), blue wildrye (*Elymus (glaucus*)), Italian rye grass (*Festuca perennis*), and foxtail barley (*Hordeum murinum*). Shrubs located near the west side of the project area include coyote brush (*Baccharis pilularis*), California buckwheat (*Eriogonum fasciculatum*), and French broom (*Genista monspessulana*).

A closed landfill associated with pre-1960 disposal of incinerator debris from historical Napa State Hospital operations is located on the westernmost portion of the project site (see Figure 2, Project Area). A preliminary Phase I ESA conducted for the project notes that waste was burned in an incinerator located in the vicinity of the project area, and ash residuals were transported to the landfill disposal location. The closed landfill, currently identified as the Napa Valley College Disposal Site, is inspected periodically under the jurisdiction of the Solid Waste Program of the Napa County Planning, Building & Environmental Services.

[1] Varying names exist referring to different channels of the same creek adjacent to the project site, including Old, Historic, and New Tulucay Creek. For the purposes of this Initial Study, the creek is referred to as Tulucay Creek.

1.4.2 Environmental Setting

The project site is located within the City of Napa in the southern portion of the Napa Valley. Direct access to the College and the project site is provided from SR 221/Napa-Vallejo Highway via an existing driveway at Magnolia Drive. SR 221/Napa-Vallejo Highway is a major north-south four-lane highway beginning at its junction with SR 29 in southern Napa and continuing north of Imola Avenue, where it becomes Soscol Avenue. SR 121/Imola Avenue is a regional east-west arterial that runs from SR 29 to locations east of the Napa-Vallejo Highway.

The project site is located within the San Francisco Bay Area Air Basin and is under the jurisdiction of the BAAQMD. The San Francisco Bay Air Basin is currently designated as non-attainment for the state standards for 8-hour and 1-hour ozone, 24-hour and annual PM10, and annual PM2.5, as well as for the national standards for 8-hour ozone and 24-hour PM2.5.

The project site is located within the Napa River watershed, and drainages associated with Tulucay Creek are located to the north and west of the project site. The Tulucay Creek channel flows into the Napa River approximately 0.4 mile west of the project site. The area of proposed improvements is not located within a mapped 100-year or 500-year flood zone (FEMA 2016), although areas to the west and north of the project site are within mapped flood zones associated with the Napa River.

The project area is underlain by the Napa Valley Groundwater Subbasin, which was reprioritized from a medium to a high priority ranking during the recent groundwater basin prioritization process. The project site is underlain by interbedded low plasticity clays with interbedded strata of silty sands and potentially gravels (overbank deposits from the Napa River). The shallow soils consist of undocumented fill from various construction projects across the campus and fill resulting from construction of the existing parking lot on the site (Terraphase 2020). The project area is not located within an active Alquist-Priolo earthquake fault zone and no other active or potentially active faults have been mapped within the area.

The General Plan land use designation for the project site is Public Serving (PS). The zoning designation is Public, Quasi-Public Schools and Health Facilities District (PQ). The public, quasi-public schools and health facilities district provides for public and quasi-public properties dedicated to community serving purposes, such as public schools of all levels, private schools with a significant enrollment, major community health facilities and related community service facilities. This PQ district is intended for public and quasi-public uses which because of their size, location and significance are designated “Public Serving” in the General Plan.

1.4.3 Project Characteristics

The proposed project would include a mix of apartments and traditional dorm-style units, study rooms and social gathering spaces, a new vehicle connection and parking lot, and new water, wastewater, recycled water and storm water infrastructure. These activities are based on the proposed project improvement plans (see Figure 3, Preliminary Grading Plan and Figure 4, Annotated Site Plan). Each project component is summarized in more detail below.

Residential Units

Table 1-1 (Proposed Student Housing Unit Types), summarizes the buildings and unit types proposed as part of the project. The project would result in construction of approximately 206,000 gross square feet (gsf) of new residential space on campus. The project would provide approximately 280 housing units and approximately 500 beds on the College campus, to include a mix of dorm style

units and apartment style units across three 4-story buildings. Figure 5 (Building Schematics) provides visual rendering of the proposed residential buildings.

Table 1-1 Proposed Student Housing Unit Types

Proposed Building	Number of Stories, Approximate Units/Beds
Unfurnished Apartment-style Housing *(Leased by Unit)*	4 Stories, 90 Units
Furnished Apartment-style Housing *(Leased by the Bed)*	4 Stories, 200 Beds
Residence Hall *(Leased by the Bed)*	4 Stories, 212 Beds
Unit Type	**Approximate Count**
Unfurnished Apartment-style Housing – Studio	20 units
Unfurnished Apartment-style Housing – 1 BR	30 Units
Unfurnished Apartment-style Housing – 2 BR	40 Units
Furnished Apartment-style Housing – Studio	8 Beds
Furnished Apartment-style Housing – 2 BR	64 Beds
Furnished Apartment-style Housing – 4 BR	128 Beds
Residence Hall – Single	56 Beds
Residence Hall – Double	156 Beds

The proposed 4-story unfurnished apartment-style housing building would be approximately 68,000 square feet in size and approximately 56 feet in height (tallest point). The building would provide studio, one-bedroom, and two-bedroom apartments with single occupancy bedrooms. Building amenities include group study rooms, a lawn area, shaded seating areas, and a secured bike storage area.

The proposed 4-story furnished apartment-style housing building would be approximately 77,000 square feet in size and approximately 56 feet in height at its tallest point. The building would include studio, two-bedroom and four-bedroom apartments with a combination of single and double occupancy bedrooms. Building amenities would include group study rooms, common laundry rooms, a lawn area, shaded seating areas, and a secured bike storage area. The outdoor amenities would be shared with the residence hall.

The proposed 4-story residence hall would be approximately 61,000 square feet in size and approximately 56 feet in height (tallest point). The building would provide studio dormitory units with a mixture of single and double occupancy bedrooms. These units would not contain individual bathrooms or kitchens. Building amenities include a single-story multi-functional clubhouse intended to be shared with residents of all three buildings that includes collaboration/study spaces, a common area kitchens, social areas, and leasing office and mailroom.

The three buildings would be arranged on site such that an entry plaza, family courtyard, and main courtyard would be created. These courtyards would provide common open space for residents and would unify the three buildings into a single development. Outdoor amenities would include a network of pedestrian paths and formal common areas. The courtyards would include seating terraces distributed throughout the site. Proposed greenspaces would include family friendly social areas

adjacent to the buildings, and a multi-purpose lawn and game area near the apartment building and the residence hall.

Redevelopment on Portion of Napa Valley College Disposal Site

The western portion of the project site would include paving and striping for approximately 238 vehicle parking spaces. Solar canopies and associated amenities may be installed within the parking lot to provide additional self-generated energy for the College. A portion of the proposed parking lot would be constructed above a closed landfill on the southwest portion of the improvement area. Existing waste materials within the closed landfill were deposited by the Napa State Hospital prior to 1960 and are covered with clean soil to minimize contact. The landfill is monitored under the Solid Waste Program of the Napa County Planning, Building & Environmental Services Department.

As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 1 is included as part of the project, requiring project compliance with State Minimum Standards, including preparing and implementing work plans for pre-construction waste characterization and remedial actions for the former disposal site pursuant to 27 and 14 CCR. The requirements are an enforceable part of the Napa County Planning, Building & Environmental Services Solid Waste Program for landfills within the County of Napa. Options for compliance with 27 and 14 CCR include full waste removal or leaving the existing waste in-place and implementing a capping remediation and Postclosure Land Use Plan. Under the waste removal option, sufficient removal of waste and waste residuals, including any potentially contaminated soils, would be completed to a point where remaining contaminant concentrations are at or below background levels or other clean up levels established by regulatory agencies. Under the option of leaving the waste in-place, a remedial cap would be installed over the disposal site, and a Postclosure Land Use Plan would be prepared and implemented.

Circulation Improvements

Access to the project site and parking lot would be provided from a new entry driveway from the existing roundabout on the College campus. A portion of an existing on-site service road would also be realigned within the College campus to the west of the existing roundabout. A two-car loading zone would be provided at the pedestrian entrance to the development. No alterations to the existing intersection of SR 221/Napa-Vallejo Highway and Magnolia Drive is proposed.

Emergency vehicle access would be provided via the primary driveway and parking lot, as well as by a dedicated 26-foot wide Emergency Vehicle Access Easement (EVAE). The EVAE would contain a 12-foot wide path. The EVAE would function in times of non-emergency as a pedestrian path that encircles the development. Both the paved and unpaved portions of the circulator path would be engineered to support the weight and turning radii of emergency vehicles.

Water and Wastewater Utility Connections

The project would connect to existing water and wastewater utilities located within and adjacent to the project site. For potable water, the project would include a new connection to an existing City of Napa water main located within a 20-foot wide water line easement that runs parallel to the west side of SR 221/Napa-Vallejo Highway. The connection point would be near the north eastern corner of the project site outside of Caltrans right-of-way. For fire water, the project would include installation of a new private fire water service main to provide water to the building sprinkler system and proposed on-site fire hydrants. The new service will connect to the same existing City of Napa water main that would supply potable water, and the connection points would be located adjacent to one another.

The project would include full automatic sprinkler systems throughout each building and onsite fire hydrants throughout the site to provide fire hose coverage in accordance with Napa Fire Department standards.

The project parcel is currently located within the Napa Sanitation District (NapaSan) Sphere of Influence but outside of NapaSan's sanitary sewer service boundary. Annexation of the project parcel into NapaSan's service boundary would be required for the project, including approvals from NapaSan and the Napa County Local Agency Formation Commission. The project parcel is within NapaSan's recycled water service area, and the project would install the necessary on-site facilities to utilize recycled water for landscape irrigation.

The project would utilize one of the following three design options to connect to the existing NapaSan sewer system.

Option 1: This option would convey effluent approximately 100 feet southwest to an existing manhole and sanitary sewer line located within an existing 50-foot wide utility easement that traverses the site from an east-west orientation. From this point it would enter the public sewer system.

Option 2: This option would convey effluent approximately 520 feet west within an existing 50-foot wide utility easement to an existing grinder station, and would then connect to the existing sewer line.

Option 3: This option would convey effluent southward approximately 640 feet through the Roy Patrick Drive right-of-way to connect to an existing sewer line that services the Napa Valley College Performing Arts Center.

Storm Water Infrastructure

The project would include use of low impact development (LID) techniques to provide a sustainable storm water management approach. All site runoff would be treated by means of bioretention facilities placed on-site to capture the runoff from the parking lot and building roofs. Bioretention areas would be sized for hydromodification and flow control per County of Napa standards to account for the additional flow generated by the new development. The project design proposes collection and conveyance of storm water to two main on-site retention basins that would treat storm water runoff generated from project-related rooftops, parking lots, and other impervious surfaces (see Figure 4, Annotated Site Plan). A proposed retention basin to be located northwest of the existing Magnolia Drive roundabout is approximately 5,100 sf in size and would receive runoff primarily from the parking lot and western side of the project area. A proposed retention basin to be located northeast of the existing Magnolia Drive roundabout is approximately 4,800 sf in size and would receive runoff from the eastern half of the project area. Both retention areas would discharge via an existing 24-inch diameter outfall pipe that discharges to a vegetated natural drainage south of the existing roundabout.

Energy and Telecommunication Infrastructure

Energy demands for the project would be served from new pad mounted medium voltage transformers that would be provided by PG&E. Each transformer would be located outside the building being served with the location to be coordinated with PG&E. An existing overhead electrical and telecommunication line located on the project site parallel to Magnolia Drive would be relocated underground, and one additional power pole on the project site may be relocated. If gas water heaters are required for the project, natural gas would be provided by PG&E from an existing gas main located on the east side of SR 221/Napa-Vallejo Highway. Any required natural gas infrastructure would be installed underground across SR 221/Napa-Vallejo Highway to tie-in to existing

infrastructure. The project would connect to existing telecommunications infrastructure located on the College campus to support voice, data, and wireless communications services according to Napa Valley College IT Technology Standards, as well as, EIA/TIA standards and BICSI publications.

Additional Improvements

Landscaping at the project site would include native oak trees, ornamental trees, shrubs, lawn areas, and bioretention plantings. Outdoor lighting would be installed in common areas, along corridors of pedestrian movement, and in the proposed parking lot. The project would be required to comply with the Lighting Master Plan for the Napa Valley College which includes design features and recommendations for lighting quantity and quality.

1.4.4 Construction Information

The College anticipates that project construction would begin in the summer of 2021 and take approximately 20 to 22 months to complete. Construction would take place within the hours defined in section 8.08.025 of the Napa Municipal Code, which is generally defined as between the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, and the hours of 8:00 a.m. to 4:00 p.m. on weekends and legal holidays.

Prior to construction, the contractor would mobilize resources to a staging area within a portion of the project site. This would include transport of construction vehicles and equipment, as well as delivery and storage of construction materials. The contractor may also secure a job site trailer and portable sanitary facilities at staging areas. Site access for construction and hauling activities would be provided by SR 221/Napa-Vallejo Highway and the campus' primary north access at Magnolia Drive. The site access driveway would be kept clear to allow ingress and egress for construction purposes.

Structural systems for the proposed buildings would be either wood frame construction on grade with post-tensioned mat slab foundation, or cold-formed steel with post-tensioned mat slab foundation. Project construction activities would include demolition, site preparation, grading and excavation, trenching, building (exterior), interior/architectural coating, and paving. Impact pile driving is not anticipated as a method of construction. Construction activities would be carried out in stages, and during each stage of construction, there would be a different mix of equipment operating. Equipment to be used would include, but not necessarily be limited to, excavators, backhoes, vibratory pile drivers, front end loaders, scrapers, graders, concrete saws, cranes, jackhammers, winches, chainsaws, fork lifts, rollers, asphalt road pavers, compactors, air compressors, generator sets, and pneumatic tools. A variety of trucks including cement mixers, haul trucks, and water trucks would also be required.

Site preparation, including demolition, clearing and grading of the project site as necessary would require the removal and off-haul of materials. This would include, but not necessarily be limited to, vegetation, concrete, asphalt and fill, and certain existing utilities that may be removed and replaced. Approximately 60 trees may potentially be removed to accommodate construction of the project. Based on a tree inventory conducted for the project, this may include 40 coast live oak trees (33 of which are less than 12-inches in diameter), eight valley oaks (six of which are less than 12-inches in diameter), one cork oak, two fruit trees, five walnut trees, and four olive trees.

Following site preparation, the project site would be rough graded to elevations shown on final improvement plans and in accordance with recommendations in the project's Preliminary Geotechnical Recommendations Technical Memorandum (Terraphase 2020) and any subsequent geotechnical documentation. Rough grading activities would include building pad preparation,

grading of roadways, and installation of erosion and sediment control features. Importation of clean fill material would also occur during this phase.

Utility connections would be installed using open trench construction methods. Such methods would include removal of surface material; excavation and shoring of a trench; installation of pipe bedding, pipelines and conduits; backfilling of the trench; and resurfacing. Vertical construction activities would include construction of the residential buildings and other site improvements. The final phase of construction is anticipated to include establishment of on-site open space areas, including installation of landscape plantings, trees, irrigation systems, and finished hardscapes.

The number of construction-related vehicles traveling to and from the project site would vary on a daily basis. For the purposes of evaluation, the heaviest traffic days are anticipated to require up to 40 haul truck trips on a peak day. In addition to haul trucks, it is anticipated that construction crew trips could require up to 24 trips per day. Therefore, on the busiest days of construction, approximately 64 vehicle trips could occur. Construction activities would include temporary work adjacent to the existing roundabout along Magnolia Drive during completion of the fourth leg of the intersection, as well as during installation of wastewater and recycled water utility lines.

1.4.5 Project Operation and Maintenance

At full occupancy, the project would support approximately 500 residents and would be anticipated to create the equivalent of up to eight full-time employment opportunities. Residents of the proposed student housing facility would consist either of current students who live off-campus or new students that would otherwise live off-campus. The project is not intended to increase the overall enrollment at the College.

The College has coordinated with the City of Napa Water Division and NapaSan regarding anticipated water and wastewater demands for the project. On May 18, 2020, the City of Napa Water Division issued a “Will Serve” letter for the project for provision of potable water for fire and domestic use (Napa 2020). On July 14, 2020, NapaSan issued a “Conditional Will Serve” letter for the project for provision of sanitary sewer service (NapaSan 2020). The project would connect to existing City of Napa and NapaSan utilities located within and adjacent to the project site.

Project operation would result in energy consumption in the form of electricity for heating and cooling of buildings, generation of hot water, lighting of indoor and outdoor spaces, and operation of various forms of equipment. The project would also result in energy use associated with disposal of solid waste and for pumping, distribution, and treatment of project-related water and wastewater demands, as well as energy use associated with vehicle trips. The new student housing buildings are being designed to meet the California Energy Commission’s Title 24 Building Energy Efficiency Standards, which are intended to reduce wasteful and unnecessary energy consumption in newly constructed buildings. The design would incorporate sustainable goals for energy efficiency, water use reduction, storm water management, and occupant health. This would include heating and cooling with highly energy efficient HVAC systems, energy saving lighting, water efficient fixtures, faucets and devices, and recycling programs.

The Police Department at Napa Valley College would provide the primary police presence for the project. The project would be required to comply with State security requirements for student housing facilities, including implementation of a site security plan.

1.5 Environmental Protection Actions Incorporated Into the Proposed Project

The project would comply with the following environmental protection actions, and thus each protection action is a part of the project. The project's Mitigation Monitoring and Reporting Program will include these environmental protection actions to ensure implementation.

1.5.1 Environmental Protection Action 1 – Achieve State Standards for Postclosure Land Use and Site Redevelopment

The College will ensure project compliance with State Minimum Standards and prepare and implement workplans for pre-construction waste characterization and remedial actions for the Napa Valley College Disposal Site pursuant to Title 27 and Title 14, California Code of Regulations (27 and 14 CCR). The requirements are an enforceable part of the Napa County Planning, Building & Environmental Services Solid Waste Program for landfills within the County of Napa. Options for compliance with 27 and 14 CCR include either full waste removal or leaving the existing waste in-place and implementing a capping remediation and Postclosure Land Use Plan. Requirements include, but are not necessarily limited to, the following:

<u>Pre-construction Waste Characterization</u>

The College will complete site characterization work plans as requested by the Napa County Planning, Building & Environmental Services Department to further assess soil and groundwater conditions and potential soil vapor and combustible gases within and adjacent to the former landfill. This will include:

- A series of borings will be drilled to determine the maximum depth of waste and depth to native soils. Work may also include geophysical surveys to aid in determining the extent of waste.
- Approximately four permanent landfill gas monitoring wells will be installed to reach the maximum depth of waste or above the permanent low seasonal water table.
- A Final Report of the investigation activities will be developed summarizing waste extent, estimated waste volume in-place, boring logs, as-built drawings of the installed monitoring wells, and soil test results.
- A gas monitoring program will be developed and implemented for a minimum of 12 months that includes monthly gas screening for methane and fixed gases, unless a less frequent option is agreed to in consultation with the Napa County Planning, Building & Environmental Services Department.
- A soil vapor study will be developed and implemented for a minimum of one year that includes quarterly collections of soil vapor samples for volatile organic compounds, methane, and fixed gases.
- Landfill gas and soil vapor monitoring data will be reported to the Napa County Planning, Building & Environmental Services Department on a monthly basis.

<u>Full Waste Removal Option</u>

If the College proceeds with the option of full waste removal, the College will prepare a Waste Removal Work Plan in accordance with 27 and 14 CCR. The Waste Removal Work Plan will be informed by the results of the pre-construction waste characterization described above, and will be submitted to the Napa County Planning, Building & Environmental Services Department for review and approval. Remedial actions would be conducted under the oversight of the Napa County

Planning, Building & Environmental Services Department. A Post Remedial Action Testing Plan will be developed and implemented to confirm the sufficient removal of waste and waste residuals, including any potentially contaminated soils. Sufficiently complete waste removal is generally defined as waste materials and residuals being removed to a point where remaining contaminant concentrations are at or below background levels or other clean up levels established by regulatory agencies. A determination by the Napa County Planning, Building & Environmental Services Department would be required confirming that the buffer area is sufficiently devoid of waste, restoring its status as a clean buffer area and removal of any further requirements regarding adequate cover for the area under the State Minimum Standards.

Leaving Waste In-Place Option

If the College proceeds with the option of leaving the existing waste in-place and implementing a capping remediation, then the College will prepare and implement a workplan for the implementation of a remedial cap for the disposal site as determined by results of the pre-construction waste characterization described above. The remedial cap will be delineated and implemented to prevent public contact with waste and to ensure that it meets State Minimum Standards including adequate grading, erosion control, and security. The College will also prepare and implement a Postclosure Land Use Plan in accordance with 27 CCR, Section 21190 to (1) protect public health and safety and prevent damage to structures, roads, utilities and gas monitoring and control systems; (2) prevent public contact with waste, landfill gas and leachate; and (3) prevent landfill gas explosions. The Postclosure Land Use Plan will be informed by the results of the pre-construction waste characterization described above, and will be submitted to the Napa County Planning, Building & Environmental Services Department, the San Francisco Bay Regional Water Quality Control Board, Department of Toxic Substances Control, and the Bay Area Air Quality Management District for review. Approval of the Postclosure Land Use Plan will be required by the Napa County Planning, Building & Environmental Services Department. Requirements include, but are not necessarily limited to, the following:

- Compliance with construction design standards of 27 CCR21190(e) and (g), as applicable, such as flexible utility connections, floor slab barrier, vent layer, vent piping, automatic methane sensors with alarm system, periodic methane monitoring program of structure, or similar regulated methods.
- Environmental monitoring and control systems, including site security, erosion control, drainage, leachate collection and removal, and landfill gas monitoring and control, if applicable.
- Monitoring and operations plans for landfill gas, in addition to ensuring that methane alarm systems are maintained, if applicable.
- The integrity of the final cover, drainage and erosion control systems, and gas monitoring and control systems will be required.
- A Construction Quality Assurance Plan will be developed and implemented to ensure that construction is completed in accordance with plans and specifications. The plan will also include submittal and certification of as-built plans and specifications upon completion of construction.
- A Post Closure Maintenance Plan will be developed and implemented in accordance with 27 CCR, Section 21090.

1.5.2 Environmental Protection Action 2 – Implement Geotechnical Design Recommendations

The project will be designed and constructed in conformance with the preliminary geotechnical recommendations contained in the Preliminary Geotechnical Recommendations Technical Memorandum (Terraphase 2020), and any subsequent design-level geotechnical reports for the project. Specifically, the design and construction shall be consistent with the geotechnical recommendations for allowable foundation bearing pressures, seismic design parameters, earthwork, and excavation. The geotechnical recommendations will be incorporated into the final plans and specifications for the project, and will be implemented during construction. Professional inspection of foundation work, excavation, earthwork and other aspects of site development shall be performed during construction to ensure compliance with the recommendations.

1.5.3 Environmental Protection Action 3 – Implement Storm Water Control Measures During Construction

The College and/or its contractor will obtain coverage under State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. This will include submittal of permit registration documents (notice of intent, risk assessment, site maps, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and certifications) to the State Water Resources Control Board. The Storm Water Pollution Prevention Plan will address pollutant sources, non-storm water discharges resulting from construction dewatering, best management practices, and other requirements specified in the above-mentioned Order. The Storm Water Pollution Prevention Plan will also include dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. A Qualified Storm Water Pollution Prevention Plan Practitioner will oversee implementation of the Plan, including visual inspections, sampling and analysis, and ensuring overall compliance.

1.5.4 Environmental Protection Action 4 – BAAQMD Construction Measures

To limit dust, criteria pollutants, and precursor emissions associated with the construction activity, the College will include the following Bay Area Air Quality Management District (BAAQMD) recommended Basic Construction Measures in construction contract specifications for the project:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day;
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered or shall have at least two feet of freeboard;
- All visible mud or dirt tracked-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 shall be prohibited;
- All vehicle speeds on unpaved areas shall be limited to 15 miles per hour;
- All paving shall be completed as soon as possible after trenching work is finished;
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure

Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points;

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation;
- A publicly visible sign shall be posted with the telephone number and person to contact at the College 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 ensure compliance with applicable regulations.

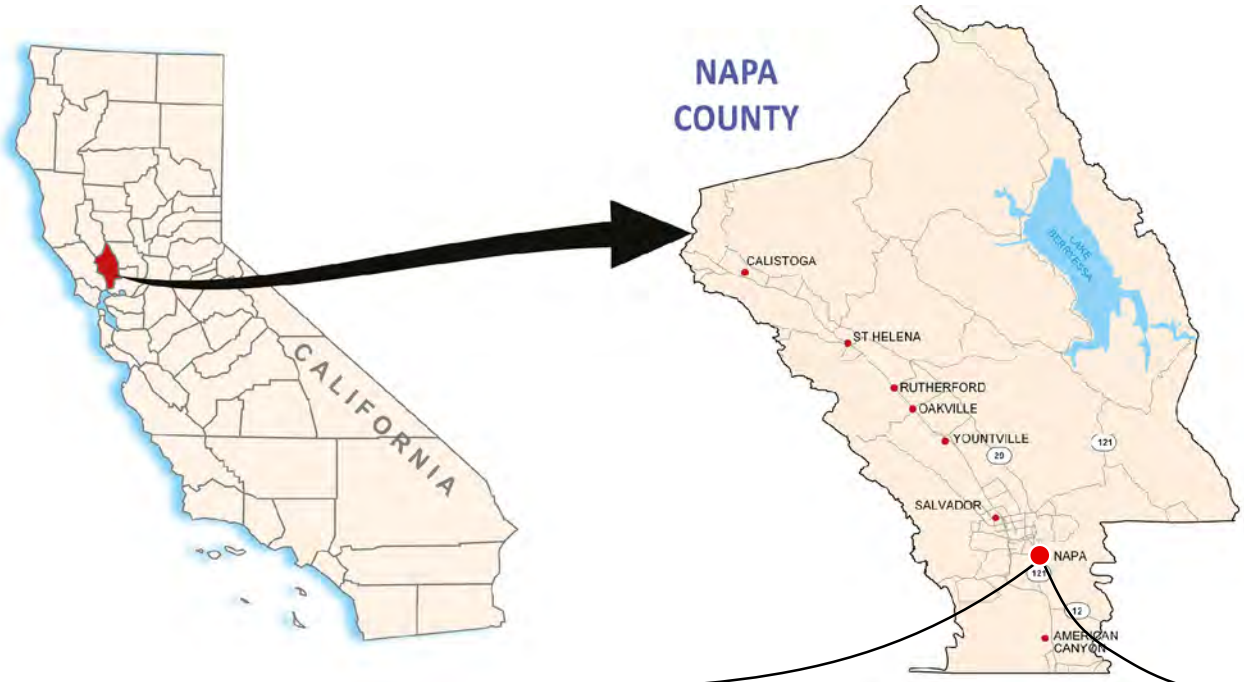
1.6 Required Agency Approvals

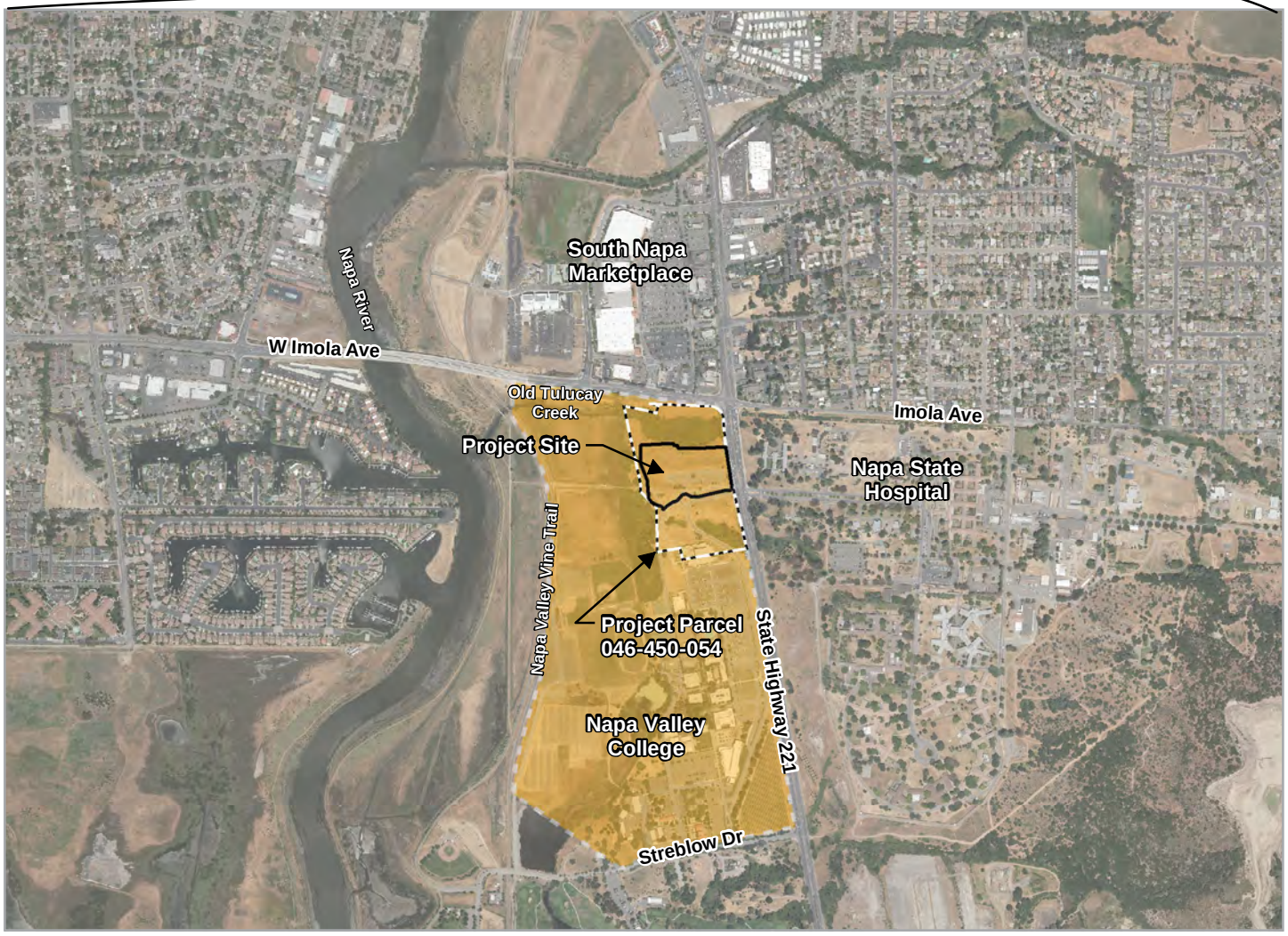
The proposed project may require the following permits and approvals.

- Adoption of Mitigated Negative Declaration by Napa Valley Community College District Board of Trustees;
- Construction approval from the Office of the Division of the State Architect;
- Well/Boring Permit and Postclosure Land Use Plan approval from Napa County Planning, Building & Environmental Services Department;
- Approval from Napa County Local Agency Formation Commission for a change to the Napa Sanitation District service boundary to include the project parcel;
- Design review approval from the City of Napa Fire Department and City of Napa Utilities Department for fire protection facilities and water connections;
- Utility Encroachment Permit and Transportation Permit approval from Caltrans for any improvements or movement of oversized or excessive load vehicles on State roadways;
- General Construction Permit approval from State Water Resources Control Board for disturbance of one or more acres of soil; and
- Authority to Construct/Permit to Operate approval from Bay Area Air Quality Management District for operation and maintenance of an emergency backup generator, if utilized.

1.7 Tribal Consultation

The College has no record of receiving requests for notification of proposed projects from California Native American tribes pursuant to Public Resources Code Section 21080.3.1. The College nevertheless initiated contact with Native American tribes as part of preparing this environmental review document. Please refer to Section 3.18, Tribal Cultural Resources, for additional information.





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Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

N

GHD

Napa Valley College Student Housing Project

Regional Location Map

Project No. 11211361
Revision No. -
Date 07/31/2020

FIGURE 1

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Print date: 31 Jul 2020 - 12:46

Data source: . Created by: mremillard

Paper Size ANSI A

0 600

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

N

GHD

Napa Valley College Student Housing Project

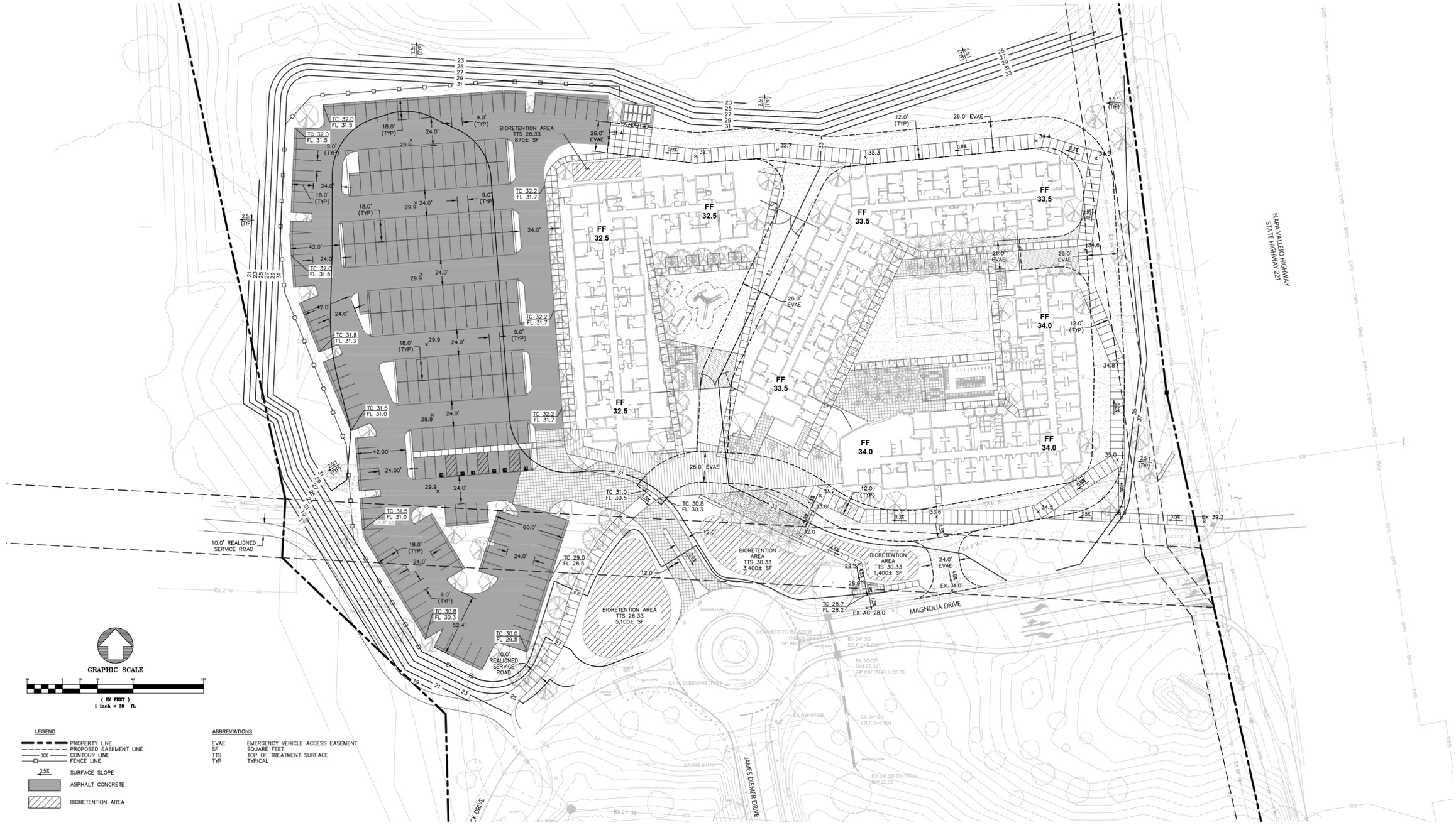
Project Area

Project No. 11211361
Revision No. -
Date 07/31/2020

FIGURE 2

\\ghdnet\ghd\US\Santa Rosa\Projects\561\11211361\GIS\Maps\Working\Project Area.mxd
Print date: 31 Jul 2020 - 12:56

Data source: . Created by: mremillard



Napa Valley College Student Housing Project

Preliminary Grading Plan

Project No. 11211361
Revision No. -
Date 06/30/2020

FIGURE 3

Filename:\\ghdnet\ghd\US\SantaRosa\Projects\561\11211361\Workshare\InDesign\GradingPlan.indd
Print date: June 30, 2020 3:19 PM

Napa Valley College Student Housing Project

Project No. 11211361
Revision No. -
Date 06/30/2020

Annotated Site Plan

FIGURE 4

Filename:\\ghdnet\ghd\US\SantaRosa\Projects\561\11211361\Workshare\In\Design\AnnotatedSitePlan.indd
Print date: August 11, 2020 4:14 PM

View 1

View 2

View 3

View 4

Napa Valley College Student Housing Project

Building Schematics

Project No. 11211361
Revision No. -
Date 06/30/2020

FIGURE 5

Filename:\\ghdnet\ghd\US\SantaRosa\Projects\561\11211361\Workshare\InDesign\BuildingSchematics_1.indd
Print date: June 30, 2020 3:42 PM

2. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report:

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

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.

☐ I find that the proposed MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

LEAD AGENCY Signature

8/12/2020
Date

3. Environmental Analysis

3.1 Aesthetics

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			✓	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view of the site and its surroundings? (Public Views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✓	

a) Have a substantial adverse effect on a scenic vista? (No Impact)

No designated scenic vistas are identified in the Napa General Plan. The project site is not located on a ridge, hilltop, or within a Napa scenic corridor or hillside overlay district as established in the Napa Municipal Code. Because the project site is not within a scenic vista and distant views towards the project area are not towards a scenic vista, no impact would result.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Less than Significant)

The California Scenic Highway Program includes a list of officially designated and eligible State Scenic Highways. According to the California Scenic Highway Mapping System, the section of the SR 221/Napa-Vallejo Highway and SR 121/Imola Avenue adjacent to the project site are part of an eligible State Scenic Highway, but neither is officially designated (Caltrans 2019). An eligible State Scenic Highway designation differs from an official designation and does not require local jurisdictions to enact a scenic corridor protection program. As described in Impact "c" below, the project would not substantially damage scenic resources along SR 221/Napa-Vallejo Highway or SR 121/Imola Avenue. Therefore, because the surrounding highways are not officially designated and the project would not damage scenic resources along the corridors, the impact would be less than significant.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view of the site and its surroundings? (Public Views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (Less than Significant Impact)

The Napa General Plan land use designation for the project site is Public Serving (PS). The Napa zoning designation for the site is Public, Quasi-Public Schools and Health Facilities District (PQ). The PQ District provides for public and quasi-public properties dedicated to community serving purposes, such as public schools of all levels, private schools with a significant enrollment, major community health facilities and related community service facilities. This PQ district is intended for public and quasi-public uses which because of their size, location and significance are designated "Public Serving" in the General Plan. There are no established height limitations or setbacks associated with the PQ zoning district with which the project would conflict.

The project site is currently composed of native and non-native grassland as well as an asphalt parking lot and closed landfill. Riparian vegetation associated with Tulucay Creek is located adjacent to the site. Surrounding developed land uses and natural features include the SR 221/Napa-Vallejo Highway and Napa State Hospital to the east, SR 121/Imola Avenue and a shopping center to the north, the College to the south, and the Napa Valley Vine Trail and Napa River to the west.

Each of the proposed buildings would be four-stories tall and approximately 56 feet in height at their tallest points (see Figure 4, Annotated Site Plan and Figure 5, Building Schematics). The student apartment buildings frame and create a common courtyard to serve residents. The student apartment building and residence hall also create a courtyard to be shared by residents. The scale and massing of the buildings define visible entrances and orient guests while window sizes and types differentiate between residential and community spaces. Approximately 60 trees would be removed from the project site to accommodate construction, including a mix of coast live oaks, valley oaks, cork oak, fruit trees, walnut trees, and olive trees. Landscaping at the project site would include planting of new native oak trees, ornamental trees, shrubs, lawn areas, and bioretention plantings. Upon completion, the project would increase the amount of landscaped vegetation at the project site and as viewed from surrounding public viewpoints compared to existing conditions.

The Napa General Plan identifies a visual gateway along SR 221/Napa-Vallejo Highway south of Imola Avenue near the College. Napa General Plan Policy LU-1.6 also identifies SR 221/Napa-Vallejo Highway, fronting the project site to the east, and SR 121/Imola Avenue, located approximately 350 feet to the north of the project site, as scenic corridors. The Napa Municipal Code does not include scenic corridor overlay districts for these two roadways along the project frontage.

According to the Napa General Plan, scenic corridors and gateways are enhanced by open space, riparian corridors, increased landscaping, and street tree planting. Existing views of the project site from SR 221/Napa-Vallejo Highway include a stone bus stop building built circa 1910, a paved parking lot, and grassland. Views adjacent to the project site along SR 121/Imola Avenue consist of open fields and trees, landscaping, and the College campus to the south, and commercial establishments to the north. As illustrated in Figures 4 and 5, the project includes new landscaping and street trees, and the adjacent Tulucay Creek riparian corridor remains untouched. Landscaping is proposed along SR 221/Napa-Vallejo Highway, with buildings set back from the roadway. The project, as designed, would be consistent with the intent of Napa General Plan Policies LU-1.5 and LU-1.6. The stone bus stop building would remain in place as part of the project. From SR 121/Imola Avenue, views of the project site would remain predominantly screened by intervening riparian vegetation associated with Tulucay Creek. The design of the project would not conflict with applicable

zoning and other regulations concerning scenic quality, including General Plan policies related to scenic corridors. The impact would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Less than Significant)

Nighttime construction work is not anticipated to be required for the project. Therefore, no exterior lighting would be required during construction, and no impact would result. Glare related to construction activity would be minimal and would be temporary in nature, therefore, the potential impact during construction would be less than significant.

Following construction, the project would add additional sources of nighttime light in the project area from outdoor lighting. Outdoor lighting would be installed in common areas, along corridors of pedestrian movement, and in the proposed parking lot. Based on the schematic design for the project, outdoor lighting would include shielded wall mounted LED light fixtures and down lights to be located on the perimeter of the buildings. Bollards would be provided for site lighting to meet any additional exterior lighting requirements for safety, while pole lights would be minimized throughout the site. Exterior motion sensors are also proposed for use to further allow for reduced lighting levels. Because the proposed lighting would be shielded, recessed and motion activated to minimize light trespass, the impact of the project as a new source of light would be less than significant.

The proposed student housing buildings would generally have non-reflective surfaces with interspersed windows. Based on the schematic design for the project, the façades of the buildings include various building projections and a variety of siding materials that will scatter or absorb light. No façade contains large reflective surfaces of metal or glass wall panels. Thus no substantial daytime glare is anticipated. The impact would be less than significant.

3.2 Agriculture and Forest Resources

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

a- e) Convert Farmland or Forest? (No Impact)

The project site is located in the northern portion of the College campus on land designated by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) as Other Lands (CDC 2016). Implementation of the proposed project would not convert any Prime Farmland, Unique Farmland or Farmland of Statewide Importance to a non-agricultural use. No lands on the project site are zoned for agricultural use, forest land, or timberland, and the site is not subject to a Williamson Act Contract. No agricultural or forest land would be converted due to implementation of the project. No impact would result.

3.3 Air Quality

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Result in a cumulatively considerable net increase in 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?			✓	

An Air Quality Assessment was prepared for the project (Illingworth & Rodkin 2020a). The air quality analysis utilizes the thresholds of significance, screening criteria and levels, and impact assessment methodologies presented in the most recent version of the BAAQMD CEQA Air Quality Guidelines.

a) Conflict with or obstruct implementation of the applicable air quality plan? (No Impact)

The BAAQMD Bay Area 2017 Clean Air Plan is the most recently adopted regional air quality plan that pertains to the project (BAAQMD 2017). The primary goals of the 2017 Clean Air Plan are to protect air quality, public health, and the climate. As shown in Impacts “b” and “c”, the project would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment or expose sensitive receptors to substantial pollutant concentrations. Therefore, the proposed project would not conflict with the primary goals of the Clean Air Plan. The 2017 Clean Air Plan includes 85 control measures in nine economic sectors. The control measures are not directly applicable to the project, and the project would not disrupt or hinder implementation of any control measure. In addition, the project is considered urban infill and would be located near transit facilities with regional connections. Therefore, the project would not conflict with or obstruct implementation of the Clean Air Plan. No impact would result.

b) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Less than Significant)

The project is located within the San Francisco Bay Area Air Basin, which is considered a non-attainment area for ground-level ozone and PM2.5 under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM10 under the California Clean Air Act, but not the federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone, PM2.5 and PM10, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds apply to both construction period and operational period impacts.

Construction

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB Emission Factors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks. Table 3.3-1 shows average daily construction emissions of ROG, NOX, PM10 exhaust, and PM2.5 exhaust during construction of the project. As shown in Table 3.3-1, the project's estimated construction emissions would not exceed the BAAQMD air pollutant thresholds. The impact of construction-related activities on local and regional air quality would be less than significant.

Table 3.3-1 Construction Air Pollutant Emissions (pounds per day)

Project	ROG	NOx	PM_{10}	$PM_{2.5}$
Project construction emissions	8.0	11.4	0.7	0.6
BAAQMD Thresholds	54	54	82	54
Threshold Exceeded?	*No*	*No*	*No*	*No*

Source: Illingworth & Rodkin 2020a

The BAAQMD does not recommend a numerical threshold for fugitive dust from construction activities. Instead, the BAAQMD bases the determination of significance for fugitive dust on a consideration of control measures to be implemented. If the basic construction measures recommended by the BAAQMD are implemented for a project, then fugitive dust emissions during construction are not considered significant. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 4 is included as part of the project, requiring contractor agreements for implementing the BAAQMD basic dust abatement actions. Therefore, the proposed project would meet the BAAQMD's construction-related threshold for fugitive dust (PM10 and PM2.5). The construction-related impact would be less than significant.

Operation

Following construction, the project would result in a net decrease in vehicle miles travelled along local and regional roadways. Therefore, the project would not cause localized high levels of CO associated with traffic congestion and idling or slow-moving vehicles. The project would not contribute to any violation of the CO air quality standard or have a considerable contribution to a cumulative violation of this standard. The impact would be less than significant.

Annual project operational emissions were predicted using CalEEMod. As shown in Table 3.3-2, the project's estimated operational emissions would not exceed the BAAQMD air pollutant thresholds. Therefore, the operational impact of the project on local and regional air quality would be less than significant.

Table 3.3-2 Operational Period Emissions

Project	ROG	NOx	PM_{10}	$PM_{2.5}$
Project Operational Emissions (tons/year)	1.2 tons	0.4 tons	0.2 tons	0.1 tons
BAAQMD Thresholds (tons/year)	10 tons	10 tons	15 tons	10 tons
Threshold Exceeded?	*No*	*No*	*No*	*No*
Project Operational Emissions (lbs/day)	6.4 lbs	2.0 lbs	1.0 lbs	0.4 lbs
BAAQMD Thresholds (lbs/day)	54 lbs	54 lbs	82 lbs	54 lbs
Threshold Exceeded?	*No*	*No*	*No*	*No*

Source: Illingworth & Rodkin 2020a

c) Expose sensitive receptors to substantial pollutant concentrations? (Less than Significant)

Sensitive receptors are defined by the BAAQMD 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. The BAAQMD's 2017 Air Quality Guidelines recommend assessing community risk and hazards within a 1,000-foot-radius 'zone of influence' from the property line of the emission source. A health risk assessment was completed for the project (Illingworth & Rodkin 2020a), which evaluated impacts associated with all substantial sources of toxic air contaminants that can affect sensitive receptors located within 1,000 feet of the project site. These sources include project construction and operation emissions, highway emissions, busy surface streets, and stationary sources identified by BAAQMD in the project area.

Off-site Receptors

The off-site receptor with the highest modeled risk is considered the maximally exposed individual (MEI). The dispersion modeling conducted for the project indicated that the MEI was located at a single-family residence north of Imola Avenue northeast of the project site. As summarized in Table 3.3-3, community risk impacts from all sources of toxic air contaminants upon the off-site MEI would not exceed the single-source significance threshold. Therefore, the impact would be less than significant.

Table 3.3-3 Community Risk Impacts at Off-site MEI

Emission Source	Cancer Risk (per million)	Annual PM 2.5 (µg/m3)	Hazard Index
Project Sources			
Project Construction	4.8	0.02	<0.01
Project Emergency Generator	0.3	<0.01	<0.01
-Project Total-	*5.1*	*0.02*	*<0.01*
BAAQMD Single Source Thresholds	>10.0	>0.3	>1.0
Threshold Exceeded?	*No*	*No*	*No*
Cumulative Sources			
SR 221 (Napa Vallejo Highway)	3.8	0.15	<0.01
SR 121 (W. Imola Avenue and Soscol Avenue)	1.7	0.07	<0.01
Imola Avenue	6.7	0.47	<0.01
Plant #15846 (Generator)	<0.1	--	--
Plant #108549 (Gas Station)	3.9	--	0.02
Plant #109108 (Gas Station)	1.5	--	0.01
-Cumulative Sources Total-	*<22.8*	*0.71*	*<0.07*
BAAQMD Cumulative Source Thresholds	>100	>0.8	>10.0
Threshold Exceeded?	*No*	*No*	*No*

Source: Illingworth & Rodkin 2020a

On-site Receptors

The project would introduce new sensitive receptors in the area in the form of future students. In order to identify potential community health risks when siting a new sensitive receptor, the BAAQMD recommends using a 1,000-foot screening radius around a project site and evaluating risks from highways, major roadways, and stationary sources. The air quality assessment performed for the project included an evaluation of such operational community risks. The roadway portions of SR 221/Napa-Vallejo Highway and SR 121/Imola Avenue were modeled in relation to proposed on-site residential units, as were other surrounding emissions sources. As shown in Table 3.3-4, the community risk impacts from the local surrounding roadways as well as surrounding stationary sources do not exceed the BAAQMD's single-source or cumulative-source thresholds. Therefore, the impact would be less than significant.

Table 3.3-4 Community Risk Impacts from Combined Sources on Project Site Receptors

Emission Source	Cancer Risk (per million)	Annual PM 2.5 (µg/m3)	Hazard Index
SR 221 (Napa Vallejo Highway)	3.8	0.15	<0.01
SR 121 (W. Imola Ave and Soscol Ave)	1.7	0.07	<0.01
Imola Avenue	6.7	0.47	<0.01
Plant #15846 (Generator)	<0.1	--	--
Plant #108549 (Gas Station)	3.9	--	0.02
Plant #109108 (Gas Station)	1.5	--	0.01
BAAQMD Single Source Thresholds	>10.0	>0.3	>1.0
Threshold Exceeded?	*No*	*No*	*No*
Cumulative Total	<7.8	<0.25	<0.05
BAAQMD Cumulative Source Thresholds	>100	>0.8	>10.0
Threshold Exceeded?	*No*	*No*	*No*

Source: Illingworth & Rodkin 2020a

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less than Significant)

Implementation of the project would not result in major sources of odor. The project type is not one of the common types of facilities known to produce odors (i.e., landfill, coffee roaster, wastewater treatment facility, etc.). Minor odors from the use of equipment during construction activities would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. In addition, operation of the project would not result in locating sensitive receptors near an existing odor source. Thus, the project would not create objectionable odors affecting a substantial number of people. The impact would be less than significant.

3.4 Biological Resources

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

Biological Resources Evaluation

A Biological Resources Evaluation was prepared for the project to identify any special-status plant and wildlife species and sensitive habitats (including wetlands) that have the potential to occur on or in the vicinity of the project site (GHD 2020, Appendix A). The assessment included literature and database searches as well as site surveys to determine what species might have potential to be present on the project site. The database searches encompassed nine U.S. Geological Survey (USGS) quadrangles (quads) centered on the project area quad (Napa) and the surrounding eight quads (Cordelia, Cuttings Wharf, Sears Point, Sonoma, Rutherford, Yountville, Mount George, and

Capell Valley). In addition, citizen science databases such as eBird, BatAmp, and iNaturalist were reviewed for additional local wildlife information.

A reconnaissance field survey was conducted by a GHD Biologist on April 16, 2020. The survey methods were intended to identify sensitive habitat and detect wildlife activity. Where the habitat allowed the surveyor to walk without risk of damaging nests or dens and surrounding vegetation, the survey included a physical search of the area. This included inspecting the ground, shrubs, and trees for the presence of any wildlife species. Three special-status plant surveys in the project area were conducted across the 2020 blooming period on April 16, May 13, and June 16, 2020. A formal wetland delineation was conducted on May 13, 2020. The information and data collected for the assessment have been used as the basis of this biological resources analysis.

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Less than Significant with Mitigation)

Special-status Plant Species

Information on special-status plant species was compiled through a review of the California Natural Diversity Data Base and the California Native Plant Society (CNPS) Electronic Inventory records for the Napa and surrounding 7.5-minute topographic quadrangles. A total of 82 special-status plants are recorded for the 9-quadrangle search around the Napa USGS quadrangle. Most of the special-status plants are not expected to occur at the project site due to lack of suitable habitat within the project area. Only four of the 82 special-status plants are considered to have a low to moderate potential to occur on the site based on the presence of potential suitable habitat. These are bent-flowered fiddleneck (*Amsinckia lunaris*), congested-headed tarplant (*Hemizonia congesta ssp. congesta*), Mt. Diablo cottonweed (*Micropus amphibolus*), and two-fork clover (*Trifolium amoenum*).

Qualified botanists conducted site surveys for special-status plants on April 16, May 13, and June 16, 2020. The proposed development area was walked using random transects across and around the project site. As required by the California Department of Fish & Wildlife (CDFW) guidelines, the surveys were floristic in nature, meaning that all plants identifiable at the time of the survey were recorded. None of the above-listed special-status plants were observed on the project site during the appropriately timed surveys which covered the flowering period for the four special-status plants with the potential to occur on site.

One potential special-status species, Northern California black walnut (*Juglans hindsii*), was observed in the project area. This species has a CNPS Rank of 1B.1, however, the designation as special-status applies only to genetically pure, native populations, which are in decline or of historic significance. The Northern California black walnuts found in and near the project area are young, not old-growth individuals that would predate 1840 (the baseline for pure genetics prior to European orchard stock introduction). Therefore, the Northern California black walnuts on site do not qualify as special-status.

Based on literature review and on-site survey observations, no impact to special-status plants would result from implementation of the project.

Western Pond Turtle and Red-bellied Newt

The project is located on a relatively undeveloped portion of the College campus primarily composed of an asphalt parking area, a former landfill, as well as native and non-native grassland. Additionally, riparian vegetation occurs along drainages associated with Tulucay Creek immediately bordering the

site. The adjacent riparian area to the north of the project site varies in width from approximately 30 to 270 feet, with dense tree growth. It is a fully intact riparian area with a degree of trash and urban disturbance. Although the site is in an urbanized area, it could support a distinct community of wildlife, including red-bellied newt and Western pond turtle (WPT).

No work would occur below the top of bank of Tulucay Creek or within the associated riparian corridor. Therefore, there would be no loss of habitat for red-bellied newt and WPT as a result of the project. However, the location of the project is within the maximum distance that red-bellied newt and WPT have been documented to occur outside of stream channels. Because of this, there is a potential for these species to disperse into the project site during construction, and vegetation removal and ground disturbance would result in potentially adverse effects to the species if present. The potential impact to these aquatic species is considered significant. Implementation of Mitigation Measures BIO-1 and BIO-2 are included to ensure no direct effects (mortality/take) would occur and thereby reduce impacts to a less-than-significant level.

Steelhead

Tulucay Creek traverses the northern and western border of the project site and is a tributary to the Napa River. Steelhead Central California Coast DPS (*Oncorhynchus mykiss irideus*) are known to spawn in the Napa River and its tributaries. Steelhead have been recorded in tributaries to Tulucay Creek, and Tulucay Creek is considered anadromous water. No project activities are proposed to occur directly within Tulucay Creek nor within the riparian corridor, therefore, no direct impacts to steelhead habitat would result. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 3 is included as part of the project, requiring implementation of a Storm Water Pollution Prevention Plan that would further reduce potential indirect impacts to the creek and associated habitat by taking actions to prevent degradation of the water quality within Tulucay Creek. The potential impact to the Steelhead Central California Coast DPS would be less than significant.

Nesting Raptors and Migratory Birds

Habitat within and adjacent to the project site provides suitable nesting opportunities for many avian species, including raptors and migratory birds. Raptors and migratory bird nests are considered to be a protected resource by federal and state agencies under the Migratory Bird Treaty Act (MBTA) and California Code of Regulations. Raptors and migratory birds with potential to be present on the project site or project vicinity include great egret (*Ardea alba*), great blue heron (*Ardea Herodias*), Swainson's hawk (*Buteo swainsoni*), Northern harrier (*Circus hudsonius*), American peregrine falcon (*Falco peregrinus anatum*), white-tailed kite (*Elanus leucurus*), bald eagle (*Haliaeetus leucocephalus*), and black-crowned night-heron (*Nycticorax nycticorax*). Evidence of nesting by wild turkeys, which is a native species protected under the California Fish and Game Code, was also observed on-site during surveys. The project has the potential to impact these species if construction activities, including removal of trees or initial grading activities, were to occur during the nesting season (February 1 through September 1). The potential impact is considered significant. Implementation of Mitigation Measure BIO-3 is included to reduce the impact to nesting birds to a less-than-significant level.

Special-status Bats

Suitable foraging and roosting habitat for pallid bat (*Antrozous pallidus*) and Western red bat (*Lasiurus blossevillii*) is present within and adjacent to the project site. In addition to the possible presence of these special-status bats on-site, indirect effects such as increased noise, dust, or increased human presence may occur from construction of the project. Vegetation removal and

ground disturbance may result in potentially adverse effects to these species if present. The potential impact is considered significant. Implementation of Mitigation Measure BIO-4 is included to reduce potential impacts to special-status bats to a less-than-significant level.

Other Species

Although the project site contains suitable habitat for California Red-legged Frog (*Rana draytonii*), the closest known record is from 2004 near Sears Point, approximately 12 miles southwest of the project site, and all recorded instances are located farther than one mile (protocol survey dispersal distance) from a known source population. The potential for American badger (*Taxidea taxus*) to occur on the project site is considered low, given that the species is regionally rare and the project site and surrounding lands contain marginal foraging habitat for the species. Similarly, the potential for California Tiger Salamander (*Ambystoma californiense*) to occur on the project site is considered low, given that the closest known record is from 1856 in Petaluma, approximately 19 miles west of the project site, and because the project site does not contain suitable habitat for the species. The project site also does not provide suitable habitat for California giant salamander (*Dicamptodon ensatus*) and foothill yellow-legged frog (*Rana boylii*). The project site is located outside of the species range for giant gartersnake (*Thamnophis gigas*), which is limited to the Central Valley. The potential impact on these special-status species and others would be less than significant. The Biological Resources Evaluation prepared for the project provides further evaluation for other additional species (GHD 2020, Appendix A).

Mitigation

Implementation of Mitigation Measure BIO-1 and BIO-2 would reduce impacts to special-status species by providing worker education as to species' potential presence and conducting pre-construction surveys. Implementation of Mitigation Measures BIO-3 and BIO-4 would reduce impacts to raptors, migratory birds, and bats by locating any potential active nests or roosts before the start of construction and establishing buffers and avoiding nests, if found, during construction.

Mitigation Measure BIO-1: Environmental Awareness Training

The College shall ensure that prior to construction, contractors shall be trained by a qualified biologist as to the sensitivity of the special-status species potentially occurring within the construction area. The training shall include a brief review of special-status species with the potential to occur onsite, including Western pond turtle, red-bellied newt, pallid and Western red bats, and nesting birds. The training shall provide an overview of their habitat requirements, legal status, and protection requirements. The training shall also provide a brief overview of biological resource mitigation measures.

Mitigation Measure BIO-2: Avoid and Protect Western Pond Turtle and Red-bellied Newt

The College shall ensure a pre-construction survey be performed by a qualified biologist within 48 hours prior to initiation of construction activities (including initial ground disturbing activities) related to the vegetation clearing and grading activities. If Western pond turtles or red-bellied newts are found during preconstruction surveys, individuals shall be relocated to a safe location in suitable habitat outside of the construction zone. If preconstruction surveys identify active nests, a qualified biologist shall establish a no-disturbance buffer zone around the nest using temporary orange exclusion fencing until the young have left the nest, as determined by the biologist.

In the event that a Western pond turtle or red-bellied newt is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where observed and the turtle or newt shall be moved to a safe location in the riparian corridor of Tulucay Creek outside of the construction zone.

Mitigation Measure BIO-3: Avoid Disturbance to Nesting Birds

The College shall ensure the following avoidance measures are implemented. Ground disturbance, vegetation clearing and tree removal shall be conducted, if possible, during the fall and/or winter months and outside of the avian nesting season (Feb 1 – Sept 1) to avoid any direct effects to special-status and protected birds. If ground disturbance cannot be confined to work outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the activity project site and a 100-foot buffer surrounding the site to check for nesting activity of birds and to evaluate the site for presence of raptors and special-status bird species. The ornithologist shall conduct at minimum a one day pre-construction survey within the 7-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the breeding season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before project work is reinitiated. If active nests are detected, the ornithologist shall flag a buffer around each nest (assuming property access). Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged or nesting activity has ceased. Buffer sizes, ranging from 50 to 250 feet, will take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds.

Mitigation Measure BIO-4: Protect Bat Species

If construction occurs during the bat maternity season (generally May 1st through August 30th), the College shall ensure a qualified bat biologist shall conduct habitat surveys for special-status bats. Survey methodology should include visual examination of suitable habitat areas for signs of bat use and may optionally utilize ultrasonic detectors to determine if special-status bat species utilize the vicinity. Surveys shall be conducted by a qualified biologist within seven days prior to construction in any areas where potential maternity roosts habitat may be disturbed/removed. Surveys shall include a visual inspection of the impact area and any large trees/snags with cavities or loose bark. If the presence of a maternity roost is confirmed, roost removal will be prohibited during maternity season and no activity generating significant noise shall occur within 300 feet of the roost. If no bat utilization or roosts are found, then no further study or action is required. If bats are found to utilize the project area, or presence is assumed, a bat specialist shall be engaged to advise the best method to prevent impact, such as phased removal of trees where selected limbs and branches not containing cavities are removed using chainsaws on the first day, with the remainder of the tree removed using chainsaws or other equipment on the second day. Construction-related lighting shall be minimized if any work occurs at night, either contained within structures or limited by appropriate reflectors or shrouds and focused on areas needed for safety, security or other essential requirements.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? (Less than Significant)

Tulucay Creek, located adjacent to the project site, provides instream and riparian habitat that supports a distinct community of plants and animals. No project work would occur below the top of bank of Tulucay creek or within the riparian corridor of the creek. Therefore, no impact to riparian habitat would result.

The CNDDB lists five Sensitive Natural Communities (SNCs) in the vicinity of the project area. These include Serpentine Bunchgrass, Northern Vernal Pool, Coastal Brackish Marsh, Valley Needlegrass Grassland, and Northern Coastal Salt Marsh. The project area does not contain serpentine substrate, and there are no CNDDB occurrences within 7.5 miles of the project area for Serpentine Bunchgrass, therefore there is no potential for this SNC to occur at the project site. The potential of the four remaining SNCs to occur at the project site is considered low due to lack of habitat. No impact to these SNCs would result.

Two additional SNCs not listed in the CNDDB's classified communities were observed on-site during biological surveys conducted in 2020. These two additional SNCs, blue wildrye (*Elymus glauc*us) and creeping wildrye (*Elymus triticoides*), are determined by the CDFW's Vegetation Classification and Mapping Program to be S3 (Vulnerable), and, therefore, Sensitive Natural Communities.

Approximately 0.03 acres of creeping wild rye grass turfs were mapped within the approximately 8-acre project area. This is a very small percentage of the overall area and overall grassland and therefore would not be considered its own separate grassland community type. The impact would be less than significant. Approximately 1.3 acres of the blue wildrye meadows type was mapped within the project site. Areas where these grasses had a relative cover of 30% or more represent a small portion of the overall grassland within the project site and are not considered to function as a separate habitat type as they provide the same habitat values as the surrounding non-native grassland and are not truly separate communities. The project area has in the past been mowed and baled seasonally by a local 4H club and has also been hydroseeded for erosion control. The presence of blue wildrye appears to be out of place with its normal habitat as this species is more naturally found in the understory and openings of shrubland and woodland communities such as chaparrals, woodlands and forests. The presence of the blue wildrye in this area may be the result of artificial introduction through past seeding efforts. The 2004 Environmental Impact Report prepared for the College Long Range Facilities Master Plan did not identify blue wildrye as a species within the grassland or woodland habitat within the project area, further supporting the premise that this species has been introduced through a seeding program and is not natural to the site. Consequently the areas observed as having blue wildrye are not considered to truly qualify as a SNC. They are not truly native in that this is not the typical habitat where these species would be present and they do not function separately from the surrounding non-native grassland community labeled as *Avena spp.-Bromus spp*. Herbaceous Semi-Natural Alliance or non-native grassland. The impact would be less than significant.

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? (No Impact)

A formal wetland delineation was conducted at the project site on May 13, 2020. No wetlands were identified on the project site. In addition, searches of the National Wetland Inventory (NWI)

were conducted on April 10, 2020 for the immediate project vicinity and revealed no known federal jurisdictional wetlands or waters within the project area. No impact to wetlands would result.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (Less than Significant)

No established native wildlife nursery sites are known within the project site. The adjacent riparian corridor along Tulucay Creek is suitable for wildlife movement. However, because the project would be located beyond the riparian corridor, it would not introduce any new feature that would substantially interfere with movement within the creek corridor. The impact would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)

Napa Municipal Code Chapter 12.45 includes procedures for protecting and replacing trees on private properties. Municipal Code Chapter 12.45 defines a significant tree as any tree or grove of trees located within the city that has been nominated by the Tree Advisory Commission for the city with the consent of the property owner upon whose land the tree is located and designated by the City Council. No designated significant trees are known to be located on the project site.

Napa Municipal Code Chapter 12.45 defines protected native trees as valley oak, coast live oak, black oak, blue oak, coast redwood, California bay, and black walnut of certain diameter size that are located on private property over one acre in size zoned for residential or agricultural purposes, or located on property zoned for commercial or industrial purposes. The zoning designation for the project site and the overall College campus is Public, Quasi-Public Schools and Health Facilities (PQ). The PQ zoning district is not subject to the Napa Municipal Code Chapter 12.45, therefore, the existing trees located on the project site do not meet the definition of protected trees. No conflict with a tree preservation policy would result.

The Napa General Plan includes policies to protect biological resources, including riparian and wetland habitat (Policy NR-1.1 and NR-1.4) and wildlife corridors (Policy NR-1.2). The project would not directly impact or remove any trees or other biological resources on any City-owned property or within a City right-of-way. No wetlands occur within the project site, no project work would occur within the adjacent Tulucay Creek or the associated riparian corridor, and no wildlife corridors exist within the project site.

The project would include use of low impact development storm water management techniques to provide a sustainable storm water management approach. All site runoff would be treated by means of bioretention facilities placed throughout the site to capture the runoff from the parking lot and building roofs per County of Napa standards. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 3 is included as part of the project, requiring implementation of a Storm Water Pollution Prevention Plan, would prevent potential degradation of the water quality within the adjacent Tulucay Creek.

No conflicts with local policies or ordinances protecting biological resources have been identified. Therefore, no impact would result.

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? (No Impact)

The project site is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, the project would not conflict with the provisions of an adopted habitat conservation plan. No impact would result.

3.5 Cultural Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?			✓	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		✓		
c) Disturb any human remains, including those interred outside of formal cemeteries?		✓		

Archaeological Resources Study

An Archaeological Resources Study was prepared for the project by the Anthropological Studies Center of Sonoma State University (ASC 2020). The study assessed the potential for surficial and/or buried archaeological and historical resources in the proposed improvement area through the completion of the following:

- Records and literature search at the Northwest Information Center (NWIC) of the California Historical Resources Information Center (CHRIS);
- Further literature review of publications, files, and maps for ethnographic, historic-era, and prehistoric resources and background information;
- Communication with the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File and contact information for the appropriate tribal communities;
- Contact with the appropriate local Native American Tribes; and
- Pedestrian archaeological survey of the project area.

Study results were used as a technical basis for evaluating potential impacts to historic and cultural resources under CEQA.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? (Less than Significant)

CEQA Guidelines Section 15064.5(b) establishes the criteria for assessing a significant environmental impact on historic resources. That section states, *"[a] project with an effect 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."* The CEQA Guidelines define substantial adverse change in the significance of an historical resource as a "*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*" (Section 15064.5(b)(1)). The significance of an historic architectural resource is considered to be "materially impaired" when a project demolishes or materially alters the physical characteristics that justify the inclusion of the resource in the California Register of Historic Resources (CRHR), or that justify the inclusion of the resource in a local register, or that justify its eligibility for inclusion in the CRHR as determined by the lead agency for the purposes of CEQA (Section 15064.5(b)(2)).

One previously recorded historic-era resource of the built environment, the Napa Valley College Bus Station (P-28-001769), is located on the project parcel near the intersection of Magnolia Drive and SR 221/Napa-Vallejo Highway. The bus station was formerly a passenger shelter for the Vallejo-Benicia and Napa Valley Railroad, which was an electrical rail line that began operations in 1905. The bus shelter is estimated to have been constructed circa 1910 in alignment with the completion date for the original main entrance to the Napa Valley Hospital. The bus shelter is built of rough-hewed stone on three sides. The end stones rise to form a gable set higher than the actual roof. Previous historical assessments have identified the bus shelter as a contributing element to an eligible National Historic Register of Historic Places historic district associated with the Napa State Hospital. The site plan for the proposed project includes reconstruction of the existing pedestrian walkway that connects the College to the intersection of Magnolia Drive and SR 221/Napa-Vallejo Highway, which passes by the bus shelter. This adjacent at-grade improvement would not impair the context of the bus shelter and its association with the eligible Napa State Hospital historic district would be similar to the existing modern improvements surrounding the bus shelter. The project would not remove, relocate, or alter the bus station or otherwise materially impair the bus station. Therefore, the impact of the project on the Napa Valley College Bus Station (P-28-001769) would be less than significant.

One other resource, the historic-era landfill (ASC-1912-01), was identified but not recorded in the western portion of the project area. This resource is the closed landfill associated with the original Napa State Hospital in operation between approximately 1874 and 1950. The site consists of a cut into the hillslope and a concentration of bottle glass, ceramic dishes, and ferrous metal extending west to Tulucay Creek and south to a paved trail. Notable artifacts date from between 1854 and as late as 1950. The deposit is not currently listed on the national, state or local registers. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 1 is included as part of the project, requiring project compliance with State Minimum Standards and preparing and implementing a Postclosure Land Use Plan pursuant to Title 27 and Title 14, California Code of Regulations (27 and 14 CCR). The landfill is not a listed historical resource and no information has become available to indicate that the landfill would be eligible under any of the established criteria for historic resources. Therefore, the impact would be less than significant.

No other facilities at the project site or the College campus are listed in or determined to be eligible for listing in the National Register of Historic Places or California Register of Historic Resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Less than Significant with Mitigation)

The results of the cultural resource records search and literature review conducted for the project identified one previously recorded cultural resource in the project area, which consisted of a charmstone isolate (P-28-000119). Additionally, an isolated basalt flake was recorded in the project area, though no Primary Number had been assigned to the isolated find and the location was not defined. The search of the Sacred Lands File noted that a Sacred Site may be located in the general project area. Scott Gabaldon, Chairperson of the Mishewal-Wappo Tribe of Alexander Valley, was identified as a contact person who may have knowledge of the resource. Efforts were made to contact Chairperson Gabaldon via letter, email, and phone, but no response has been received as of the date of this Initial Study.

A letter was received from the Yocha Dehe Wintun Nation Tribal Historic Preservation Officer Leland Kinter, who indicated that the project is located within the aboriginal territory of the Yocha Dehe Wintun Nation. On July 9, 2020, the representatives from the College held a meeting with Laverne

Bill of the Yocha Dehe Wintun Nation to discuss the project and the findings of the Archaeological Resources Study. During the meeting, mitigation measures were discussed to address the potential for construction activities to encounter previously undiscovered surface or subsurface archaeological resources during initial project construction. If such resources were to represent unique archaeological resources as defined by CEQA, any substantial change to or destruction of these resources would be a significant impact.

Mitigation

Implementation of Mitigation Measure CR-1 and CR-2 would reduce the potential impact to previously undiscovered archaeological or cultural resources to a less-than-significant level by requiring training of contractors, tribal and archaeological monitoring during initial ground disturbance, and procedures to be taken in the event of inadvertent discovery of resources consistent with appropriate laws and requirements.

Mitigation Measure CR-1: Archaeological Monitoring and Inadvertent Discovery Procedures

The College shall ensure the following procedures are followed. A qualified archaeologist shall be present onsite during initial grading and initial ground disturbance activities, including vegetation removal and grubbing. If archaeological materials are encountered during initial ground-disturbing activities, work within 25 feet of a discovery shall be halted until an archaeologist assesses the find, consults with the appropriate tribes and agencies, and makes recommendations for the treatment of the discovery to protect the integrity of the resource and ensure that no additional resources are affected. Upon completion of the assessment, the archaeologist shall prepare a report to document the methods and results of the assessment. The report shall be submitted to the College, appropriate tribes and the Northwest Information Center upon completion.

Following initial ground disturbance, in the event that any subsurface archaeological features or deposits, including locally darkened midden soil, are discovered during later construction-related earth-moving activities, all ground-disturbing activity in the vicinity of the resource shall be halted, a qualified professional archaeologist shall be retained to evaluate the find, and the appropriate tribal representative(s) shall be notified. If the find qualifies as a historical resource, unique archaeological resource, or tribal cultural resource as defined by CEQA, the archaeologist, in consultation with tribes, shall develop appropriate measures to protect the integrity of the resource and ensure that no additional resources are affected. In considering any suggested measures proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the College, in consultation with applicable Native American tribes, shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery, reburial at another location within the site) shall be instituted. Work may proceed on other parts of the project while mitigation for unique archaeological resources is being carried out.

Mitigation Measure CR-2: Coordinate with Yocha Dehe Wintun Nation Tribe regarding Cultural Training and Monitoring

The College shall coordinate with the Yocha Dehe Wintun Nation Tribe regarding their recommendation for conducting a pre-construction cultural sensitivity training for

Contractor staff as well as tribal monitoring during initial construction-related ground disturbance. The tribal monitors, along with project archaeologists, shall be empowered to halt earthmoving equipment in the immediate area of a discovery if cultural items or features are identified until further evaluation can be made in determining their significance.

c) Disturb any human remains, including those interred outside of formal cemeteries? (Less than Significant with Mitigation)

Based on the archaeological field survey and records search performed for the project, no indication of human burials were identified on the project site (ASC 2020). Although no human remains have been directly observed, the possibility of encountering human remains during project construction cannot be discounted. Therefore, the impact related to the potential disturbance or damage of previously undiscovered human remains, if present, is considered significant. Mitigation Measure CR-3 would reduce the impact to a less-than-significant level by addressing discovery of unanticipated remains, associated grave goods, or items of cultural patrimony consistent with appropriate laws and requirements.

Following construction, no ground disturbing activities are anticipated to occur other than those related to routine maintenance of the project, such as landscaping or irrigation repair. Therefore, it is unlikely any human remains would be encountered during operation. The operational impact would be less than significant.

Mitigation

Mitigation Measure CR-3 would reduce the impact of construction activities on potentially unknown human remains to a less-than-significant level by addressing discovery of unanticipated remains, associated grave goods, or items of cultural patrimony consistent with appropriate laws and requirements.

Mitigation Measure CR-3: Protect Human Remains If Encountered during Construction

The College shall ensure the following measures are implemented to protect human remains. If human remains, associated grave goods, or items of cultural patrimony are encountered during construction, work shall halt in the vicinity of the find and the County Coroner shall be notified immediately. The following procedures shall be followed as required by Public Resources Code § 5097.9 and Health and Safety Code § 7050.5. If the human remains are determined to be of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of the determination. The Native American Heritage Commission shall then notify the Most Likely Descendant (MLD). The MLD shall complete an inspection and make its MLD recommendation for disposition of the remains within 48 hours of receiving access to the site. The College and the MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be subject to future. Any reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b). Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed.

3.6 Energy

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			✓	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				✓

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (Less than Significant)

Construction

Temporary energy use in connection with project construction would include consumption of diesel fuel and gasoline by construction equipment and transport of earth moving equipment, construction materials, supplies, and construction personnel to and from the project site. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 4 is included as part of the project, requiring provisions in contractor agreements for minimizing idling time to 5 minutes or less during construction, requiring construction equipment to be maintained per specifications established by the manufacturer, and using electric equipment and/or equipment using alternative fuels as feasible and appropriate. With implementation of such construction measures, wasteful, inefficient, or unnecessary use of energy resources is not anticipated during project construction. The impact would be less than significant.

Operation

Project operation would consume energy for multiple purposes, including but not limited to building heating and cooling, lighting, appliances, and electronics. In addition, vehicle trips associated with operation would consume gasoline. The new student housing buildings are being designed to meet the California Energy Commission's Title 24 Building Energy Efficiency Standards, which are intended to reduce wasteful and unnecessary energy consumption in newly constructed buildings. The design incorporates sustainable measures for energy efficiency and water use reduction, including heating and cooling with highly energy efficient HVAC systems, energy saving lighting, water efficient fixtures, faucets and devices, and recycling programs. The increase in energy demand resulting from the project would not be expected to require or result in the construction of new sources of energy supplies or additional energy infrastructure capacity, and the project would not conflict with applicable energy policies or standards. Therefore, operation of the project would not use large amounts of energy nor use it in a wasteful manner. The operational impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (No Impact)

Implementation of the project would not obstruct a state plan for renewable energy or implementation of the City of Napa Sustainability Plan (Napa 2012). The City of Napa Sustainability Plan contains voluntary actions that can be taken in the City and community related to energy and other sectors, such as mobility and transportation. The new student housing buildings are being designed to meet the California Energy Commission's Title 24 Building Energy Efficiency Standards, which are intended to reduce wasteful and unnecessary energy consumption in newly constructed buildings. The project also would also reduce commute-related trips for the project's residents, which would lead to a reduction in vehicle miles travelled compared to existing conditions. The project would not conflict with or obstruct future implementation of Napa's Sustainability Plan. No impact would result.

3.7 Geology and Soils

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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?				✓
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	

A Preliminary Geotechnical Recommendations Technical Memorandum was completed for the project site by Terraphase Engineering (Terraphase 2020). The technical memorandum is utilized to evaluate the seismic and geologic hazards that may affect the proposed project.

a, 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? (No Impact)

The closest fault (West Napa Fault) is located 2.16 miles west of the site (Terraphase 2020). The project area is not located within an active Alquist-Priolo earthquake fault zone, in which the state requires special studies for structures for human occupancy, and no other active or potentially active faults occur within the project site. Due to the distance from the project to the nearest recognized fault, the potential for ground surface fault rupture to occur at the project is considered low. No impact would result.

a, ii) Strong seismic ground shaking? (Less than Significant)

The project site is located in an area that would be subject to strong ground shaking in the event of a major earthquake on the West Napa Fault or the combined Hayward North, Hayward South and Rodgers Creek Fault. Based on the Building Seismic Safety Council 2014 Event Set, the West Napa Fault is believed capable of producing a magnitude 6.97 event while the combined Hayward North, Hayward South and Rodgers Creek Fault is believed capable of producing a magnitude 7.57 event (Terraphase 2020). The Preliminary Geotechnical Recommendations Technical Memorandum completed for the project site includes an evaluation of seismic hazards related to ground shaking, and identifies the appropriate California Building Code seismic design criteria to be used for structures at the project site. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 2 is included as part of the project, which requires the project to be designed and constructed in conformance with site-specific recommendations contained in the geotechnical memorandum completed for the project and any subsequent geotechnical reports to be completed for the project. Because the project would be constructed in accordance with the California Building Code and with project-specific recommendations contained in design-level geotechnical studies, the potential impact related to strong seismic ground shaking would be less than significant.

a.iii, c, d) Seismic related ground failure, including liquefaction, or unstable or expansive soils? (Less than Significant)

The Preliminary Geotechnical Recommendations Technical Memorandum completed for the project site notes that low plasticity clays with interbedded strata or silty sands and potential gravels occur at the project site (Terraphase 2020). Plasticity of soil is its ability to undergo deformation without cracking or fracturing. Soils with high plasticity are less susceptible to liquefaction and low plasticity soils are more vulnerable to liquefaction. Soils at the project site predominantly consist of Coombs gravelly loam, and to a lesser degree Egbert silty clay loam along the western extent of the project area (NRCS 2020). Shallow soils in the project site consist of undocumented fill (up to ten feet) from various construction projects across the campus and fill resulting from construction of the parking lot on the site (Terraphase 2020). Although soils at the project site are believed to have low plasticity, and therefore would be more vulnerable to liquefaction, implementation of the project would not exacerbate risk of liquefaction because the project would not increase the risk of fault rupture or other seismic activity, which are some of the components necessary for liquefaction to occur. College buildings located south of the project site occur on similar soils that exists in the project area, and the existing soil is not considered unsuitable for the proposed development. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 2 is included as part of the project, which requires the project to be designed and constructed in conformance with site-specific recommendations contained in the geotechnical memorandum completed for the project and any subsequent related geotechnical

reports. This would include design in accordance with recommendations for grading and foundation support and the use of select engineered fill to address liquefiable soils. Because the project would be constructed in accordance with project-specific recommendations contained in project-specific geotechnical studies, the potential impact related to seismic-related ground failure, including liquefaction, would be less than significant.

a, iv) Landslides? (Less than Significant)

The project site is located on relatively flat terrain. No landslides have occurred at the project site in recent history, and mapping indicates that few have occurred in areas of greater topographical relief within the project vicinity (DOC 2016b). Project construction and operation will not increase risk of landslides above existing conditions. The impact would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil? (Less than Significant)

Construction activities, including cut, fill, removal of vegetation, and operation of heavy equipment would disturb soil and would have the potential to cause erosion. During construction, the upper few inches of topsoil containing organic matter would be removed in areas of the project site that require grading. Areas to be disturbed during construction would consist predominantly of previously disturbed and underlying soils that have been highly altered from their original, natural state. As a result, the project would result in little disturbance to native soils. Following construction, the project site would be redeveloped and areas of exposed soil vulnerable to erosion would not be present. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 3 is included as part of the project, requiring implementation of a Storm Water Pollution Prevention Plan that would comply with applicable erosion and sediment control measures contained in the State Water Board's Construction General Permit. The State permit requires the implementation of erosion control measures in order to prevent soil erosion and the resulting sedimentation or other pollution of nearby bodies of water. Because the project would implement applicable erosion and sediment control measures during construction, the potential impact related to soil erosion or the loss of topsoil would be less than significant.

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? (No Impact)

Wastewater from the project would be conveyed to Napa Sanitation District's wastewater collection system. The project would not involve the construction or use of septic systems or an alternative wastewater disposal system. Therefore, no impact would result.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less than Significant)

The project would not require modification of any known unique geologic features. Excavation and earthmoving activities would primarily occur within the top eight feet of soil, which consists of undocumented fill (up to ten feet) from various construction projects across campus and from the parking lot located on site (Terraphase 2020). Should project work occur in native, non-fill soils, the potential for unique paleontological resources to be encountered is expected to be low because this area is associated with a relatively new geomorphic landscape (due to past flooding of Napa River and Tulucay Creek). In the event of inadvertent discovery of paleontological resources during construction, the College and its contractor would be required to follow regulated procedures outlined in Public Resources Code § 5097.5 for evaluating and protecting paleontological resources. This would include halting construction in order for a professional paleontologist to evaluate the find for its

scientific value or uniqueness, as well as recovery of the resource for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area would then be deposited in an accredited and permanent scientific institution where they will be properly curated and preserved. Because of the low potential for paleontological resources to be encountered and because the measures to prevent direct or indirect destruction, the impact to such unanticipated resources would be less than significant.

3.8 Greenhouse Gas Emissions

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

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less than Significant)

Greenhouse gas (GHG) emissions would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. The project would also generate long-term operational emissions associated with vehicular traffic in the project vicinity, energy and water usage, and solid waste disposal.

There is currently no applicable Federal, State, or local standard or significance threshold pertaining to construction-related GHG emissions. However, the BAAQMD does recommend that lead agencies quantify and disclose construction-related emissions. As detailed within Section 3.3 (Air Quality), project construction emissions were estimated using CalEEMod. Project construction activities are estimated to generate approximately 573 metric tons of carbon dioxide equivalent (MT CO2e) emissions (Illingworth & Rodkin 2020a).

CalEEMod was also used to estimate daily emissions associated with operation of the project. To be considered significant, the project must exceed both of the BAAQMD-established operational GHG significance thresholds. As shown in Table 3.8-1, the project's estimated GHG emissions are less than the two applicable thresholds of significance adopted by the BAAQMD. Therefore, the impact from operational and construction greenhouse emissions would be less than significant.

Table 3.8-1 Annual Project GHG Emissions (CO2e) in Metric Tons and Per Capita

Emissions Source	Proposed Project in 2023	Proposed Project in 2030
Area	3	3
Energy Consumption	244	244
Mobile	141	123
Solid Waste Generation	65	65
Water Usage	25	25
-Total (MT CO2e/year)-	478	460
Significance Threshold	660 MT CO2e/year	
Service Population Emissions (MT CO2e/year/service population)	0.9	0.9
Significance Threshold	2.8	
Exceeds both Thresholds?	*No*	*No*

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (No Impact)

According to the BAAQMD, if a project is consistent with an adopted qualified GHG Reduction Strategy, it can be presumed that the project will not have significant GHG emission impacts. However, the College does not, itself, have a qualified Climate Action Plan or other qualified GHG Reduction Strategy.

The City of Napa's Sustainability Plan includes a list of actions that can be taken in the City and community to protect the environment, including initiatives to reduce GHG emissions. On July 24, 2012, the City adopted the Sustainability Plan with guidelines of reaching a target reduction of 15% below baseline 2005 GHG emissions levels by 2020. This goal is consistent with the statewide GHG reduction goal set forth in Assembly Bill (AB) 32. However, the City of Napa's Sustainability Plan is not a qualified GHG Reduction Study and does not have a specific metric ton GHG threshold for project-level construction or operation.

The Climate Change Scoping Plan released by the California Air Resources Board (CARB) provides strategies for meeting the near-term 2020 GHG emission reduction goals in AB 32. The strategies cover energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green building, and cap-and-trade sectors, and are to be implemented by a variety of State agencies. The project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's Scoping Plan nor would the project conflict with SB 100 goals. For example, proposed buildings would be constructed in conformance with CALGreen and the California Energy Commission's Title 24 Building Energy Efficiency Standards, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficacy standards. Therefore, the project would not conflict with AB 32 or the Climate Change Scoping Plan. No impact would result.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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 it create a significant hazard to the public or the environment?			✓	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				✓
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		✓		

a, b) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Less than Significant Impact with Mitigation)

Construction

Closed Landfill

A preliminary Phase I Environmental Site Assessment (ESA) was conducted for the project to investigate potential recognized environmental conditions (PES Environmental 2020). The Phase I ESA noted the location of a former landfill associated with the Napa State Hospital within the southwestern portion of the project site. According to records, the former landfill is currently estimated to be approximately 0.5 acre in size and include approximately 3,000 cubic yards of fill that was generated during disposal of incinerator waste generated by Napa State Hospital until the early 1960s when the land was purchased by the College. A preliminary Phase I ESA conducted for the project notes that waste was burned in an incinerator located south of the project site, and ash residuals were transported to the landfill disposal location. The incinerator was removed sometime between 1973 and 1982. The Phase I ESA concluded that the overall extent and type of waste materials in the landfill is unknown, and that there is a potential for contaminated incinerator ash or other materials present in the subsurface, including the potential for lead and other chemical contamination of soil. (PES Environmental 2020) A potentially significant impact could occur if contaminated soil from work in the vicinity of the former landfill were to become airborne, or if construction workers were to come into contact with potentially contaminated soil located adjacent to the former landfill. The impact is considered significant.

Implementation of Mitigation Measure HAZ-1 would reduce the impact to a less-than-significant level by requiring the College and its contractor to develop and implement a Soil Management Plan to ensure proper safety during construction. In addition, as summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 1 is included as part of the project, requiring project compliance with State Minimum Standards and preparing and implementing work plans for pre-construction waste characterization and remedial actions for the former disposal site pursuant to 27 and 14 CCR. The requirements are an enforceable part of the Napa County Planning, Building & Environmental Services Solid Waste Program for landfills within the County of Napa. Options for compliance with 27 and 14 CCR include full waste removal or leaving the existing waste in-place and implementing a capping remediation and Postclosure Land Use Plan. With required implementation of Environmental Protection Action 1, the project would comply with applicable regulations related to solid waste facilities and protecting public health and safety.

General Construction Activities

Construction activities would involve the use of hazardous materials, such as fuels, lubricants, paints and solvents. These materials are commonly used during construction, are not acutely hazardous and would be used in small quantities. Regular transport of such materials to and from the project site during construction could result in an incremental increase in the potential for accidents. However, numerous laws and regulations ensure the safe transportation, use, storage and disposal of hazardous materials. For example, Caltrans and the California Highway Patrol regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Worker safety regulations cover hazards related to the prevention of exposure to hazardous materials and a release to the environment from hazardous materials use. The California Division of Occupational Safety and Health (Cal-OSHA) also enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees. As contractors would be required to comply with existing hazardous

materials laws and regulations the impact associated with transport, use, and disposal of hazardous materials is considered less than significant.

Operation

As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 1 is included as part of the project, requiring project compliance with State Minimum Standards, including preparing and implementing work plans for pre-construction waste characterization and remedial actions for the former disposal site pursuant to 27 and 14 CCR. The requirements are an enforceable part of the Napa County Planning, Building & Environmental Services Solid Waste Program for landfills within the County of Napa. Options for compliance with 27 and 14 CCR include full waste removal or leaving the existing waste in-place and implementing a capping remediation and Postclosure Land Use Plan. Under the waste removal option, sufficient removal of waste and waste residuals, including any potentially contaminated soils, would be completed to a point where remaining contaminant concentrations are at or below background levels or other clean up levels established by regulatory agencies. Under the option of leaving the waste in-place, a remedial cap would be installed over the disposal site as determined by results of the pre-construction waste characterization to prevent public contact with waste and to ensure that it meets State Minimum Standards including adequate grading, erosion control, and security. Under this option, the College would also prepare and implement a Postclosure Land Use Plan, which would require compliance with design standards contained within 27 CCR21190(e) and (g), as applicable, such as flexible utility connections, floor slab barrier, vent layer, vent piping, automatic methane sensors with alarm system, periodic methane monitoring program of structure, or similar regulated methods. Environmental monitoring and control systems, including site security, erosion control, drainage, leachate collection and removal, and landfill gas monitoring and control would be implemented, if required. Monitoring and operations plans for landfill gas, in addition to ensuring that methane alarm systems are maintained, would be required as part of the project. Implementation of Environmental Protection Action 1 would ensure project compliance with State Minimum Standards pursuant to 27 and 14 CCR, reducing the potential impact from the release of hazardous materials into the environment to less-than-significant.

In the event that emergency backup generators are utilized, they would be enclosed and would be equipped with an integrated diesel tank. An integrated base tank is a relatively small fuel tank built into an emergency generator unit. No separate aboveground or underground fuel storage tanks or storage drums would be located on the project site. The emergency back-up generator would be operated during a power outage and for routine maintenance in accordance with the manufacturer's specifications. Given the nature of the generator and the limited use, routine transport of fuel to the project site would not be required. The risk associated with the proposed back-up emergency generator would be less than significant.

Future residents, grounds crews, and employees may be expected to use small quantities of common household cleaners, batteries, fertilizers and similar products. Such materials are often referred to as household toxics. The local waste management agency implements several ongoing programs to facilitate the proper disposal of such materials, and because of the availability of such programs, the potential for improper disposal of such materials is considered less than significant.

Mitigation

Implementation of Mitigation Measure HAZ-1 would reduce the impact to a less-than-significant level by requiring the College and its contractor to develop and implement a Soil Management Plan to ensure proper safety during the handling, transport, and disposal of the waste.

Mitigation Measure HAZ-1: Implement Soil Management Plan to Protect Workers

The College and/or its Contractor shall develop and then implement a Soil Management Plan to control and prevent releases of potential contaminated soil or groundwater during construction activities that could pose a risk to human health and the environment. The plan shall specify proper soil and/or groundwater management and handling protocols that shall be implemented to minimize airborne dust and protect construction workers, students and neighboring residents from exposure to hazardous material emissions during soil excavation/grading activities. The plan shall identify and implement protocols to protect workers from exposure to chemicals above the applicable federal and state Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limits (PELs), such as the use of personal protective equipment requirements, worker decontamination procedures, and air monitoring strategies to ensure that workers are adequately protected. The plan shall also include implementation of any specified waste management control measures identified in a Postclosure Land Use Plan for the project.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less than Significant Impact with Mitigation)

The project site is located on the northern portion of the College campus, approximately 0.1-mile from the nearest College educational building. The next nearest school relative to the project site is Phillips Magnet Elementary School, located approximately 0.7-mile to the northeast.

Construction activities would include the use of hazardous materials such as fuels, lubricants, degreasers, paints, and solvents. These materials are commonly used during construction, are not acutely hazardous, and would be used in small quantities. Numerous laws and regulations ensure the safe transportation, use, storage, and disposal of hazardous materials (see Impact "a" and "b" above). However, a potentially significant impact could occur if contaminated soil from work in the vicinity of the former landfill were to become airborne, or if students were to come into contact with contaminated material. The impact is considered significant. Implementation of Mitigation Measure HAZ-1 would reduce the impact to a less-than-significant level by requiring the College and its contractor to develop and implement a Soil Management Plan to ensure proper safety during construction.

In addition, as summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 1 is included as part of the project, requiring project compliance with State Minimum Standards, including preparing and implementing work plans for pre-construction waste characterization and remedial actions for the former disposal site pursuant to 27 and 14 CCR. The requirements are an enforceable part of the Napa County Planning, Building & Environmental Services Solid Waste Program for landfills within the County of Napa. Options for compliance with 27 and 14 CCR include full waste removal or leaving the existing waste in-place and implementing a capping remediation and Postclosure Land Use Plan. Under the waste removal option, sufficient removal of waste and waste residuals, including any potentially contaminated soils, would be completed to a point where remaining contaminant concentrations are at or below background levels or other clean up levels established by regulatory agencies. Under the option of leaving the waste in-place, a remedial cap would be installed over the disposal site as determined by results of the pre-construction waste characterization to prevent public contact with waste and to ensure that it meets State Minimum Standards including adequate grading, erosion control, and security. Under this option, the College would also prepare and implement a Postclosure

Land Use Plan, which would require compliance with design standards contained within 27 CCR 21190(e) and (g), as applicable, such as flexible utility connections, floor slab barrier, vent layer, vent piping, automatic methane sensors with alarm system, periodic methane monitoring program of structure, or similar regulated methods and an associated Operation and Maintenance Plan. Environmental monitoring and control systems, including site security, erosion control, drainage, leachate collection and removal, and landfill gas monitoring and control would be implemented, if required. Monitoring and operations plans for landfill gas, in addition to ensuring that methane alarm systems are maintained, would be required as part of the project. Implementation of Environmental Protection Action 1 would ensure project compliance with State Minimum Standards pursuant to 27 and 14 CCR, reducing the operational impact on College students associated with the closed landfill to less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Less than Significant)

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." A search of the Cortese List was completed for the project to determine if any known hazardous waste sites have been recorded on or adjacent to the project site. These include:

- Department of Toxic Substances Control EnviroStor database;
- List of Leaking Underground Storage Tank Sites from the Water Board GeoTracker database;
- List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels;
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from the Water Board; and
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

Although the College is identified in the Water Board's GeoTracker database, the project site specifically is not. A hazardous materials investigation and cleanup occurred on the College campus between 1991 and 1995 (Napa County Case # 0223). The investigation was related to a diesel fuel release associated with a former leaking underground storage tank. The areas surrounding the former diesel fuel release were remediated in compliance with the Health and Safety Code, and the case was closed on June 23, 1995. The College is also included on the GeoTracker database of active Permitted Underground Storage Tanks, which does not indicate known associated contamination. The former solid waste disposal site located on a portion of the project site is not included on any of the Cortese List databases. The impact would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? (No Impact)

The nearest public airport to the project site is the Napa County Airport, located approximately 3.8 miles to the south of the project site. Because the project site is not located within an airport land use plan or within two miles of a public airport, the project would not result in a related safety hazard in the project area. No impact would result.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (No Impact)

The signalized intersection of SR 221/Napa-Vallejo Highway at Magnolia Avenue would provide the primary access to the project from the regional street network and would retain its current configuration. No construction activity or modification to the existing configuration of SR 221/Napa-Vallejo Highway would result. The project would modify the existing roundabout at the intersection of Magnolia Drive/James Diemer Drive on the College campus with the addition of a fourth leg to access the proposed parking lot. An emergency vehicle access easement would be provided to the site from Magnolia Drive and provided around the perimeter of the project. The project improvements would not interfere with an adopted emergency response plan or emergency evacuation plan. No impact would result.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Less than Significant with Mitigation)

The project site is not located in or contiguous to a State Responsibility Area (SRA) or lands classified as very high fire severity zones (VHFHSZ). The project site is located approximately 0.58 miles from the nearest designated SRA, and approximately 3.25 miles from the nearest lands classified as a VHFHSZ (CalFire FHSZ Viewer 2020).

Although the project site is not located within designated areas at risk of wildland fires, it is possible that fire ignition could occur during construction (e.g. related to heavy machinery usage). Because the vegetation at the project site could be dry during construction and potentially ignited from a spark or hot equipment, the construction-related impact is considered significant. Implementation of Mitigation Measure HAZ-2 would reduce the impact to a less-than-significant level by requiring the use of construction techniques that would reduce the likelihood of fires during construction of the project.

Following construction, in the event of a fire or wildland fire, the College's and City's existing evacuation plan would be implemented, compliant with its standards for safety and evacuation. The project would be required to be compliant with the current version of the California Building Code for fire safety, and includes an emergency vehicle access easement to and around the perimeter of the project site from Magnolia Drive. The emergency pathway would provide first responder access to the project facilities. Adequate turning space would be provided along the emergency access pathway to allow emergency vehicles to quickly maneuver and egress. The operational impact would be less than significant.

Mitigation

Implementation of Mitigation Measure HAZ-2 would require the use of construction techniques that would reduce the likelihood of wildland fires during construction of the project. Therefore, with implementation of Mitigation Measure HAZ-2, the impact related to wildland fires would be less than significant.

Mitigation Measure HAZ-2: Reduce Wildland Fire Hazards during Construction

Prior to construction, the College and its contractor(s) shall remove and/or clear away dry, combustible vegetation from the construction site and staging areas. Grass and other vegetation less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion outside the active construction zone.

Vehicles shall not be parked in areas where exhaust systems contact combustible materials. Fire extinguishers shall be available on the construction site to assist in quickly extinguishing any small fires, and the contractors shall have on site the phone number for the local fire department.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
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 which would:				
i) Result in substantial erosion or siltation on- or off-site?			✓	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
iv) Impede or redirect flood flows?			✓	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

a) Violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality? (Less than Significant)

Construction

No project activities are proposed to occur directly within Tulucay Creek. However, project construction activities have the potential to degrade water quality as a result of erosion caused by earthmoving activities during construction or the accidental release of hazardous construction chemicals. If not properly managed, construction activities could result in erosion, as well as the discharge of chemicals and materials, such as concrete, mortar, asphalt, fuels, and lubricants.

Applicable water quality standards and waste discharge requirements could be violated, and polluted runoff could substantially degrade water quality.

As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 3 is included as part of the project, requiring implementation of a Storm Water Pollution Prevention Plan that would comply with applicable erosion and sediment control measures contained in the State Water Board's Construction General Permit. The Storm Water Pollution Prevention Plan will address pollutant sources, non-storm water discharges resulting from construction dewatering if required, best management practices, and other requirements specified in the above-mentioned Order. Because the project would implement applicable erosion, sediment and pollution control measures during construction, the potential impact related to degrading water quality would be less than significant.

Operation

The project would include use of low impact development (LID) techniques to provide a sustainable storm water management approach. All site runoff would be treated by means of bioretention facilities placed throughout the site to capture the runoff from the parking lot and building roofs. Bioretention areas would be sized for hydromodification and flow control per County of Napa standards to account for the additional flow generated by the new development. The project design proposes collection and conveyance of storm water to two on-site retention basins that would treat storm water runoff generated from project hardscapes. Both retention areas would discharge via an existing 24-inch diameter outfall pipe that discharges to a vegetated natural drainage south of the existing roundabout. Therefore, operation of the project would be in compliance with the local storm water requirements. Additionally, these enhancements would eliminate potential contact with the waste materials in the area of the closed landfill and would reduce rainwater infiltration into the landfill area. The operational impact would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (Less than Significant)

The project area is underlain by the Napa Valley Groundwater Subbasin, which was reprioritized from a medium to a high priority ranking during the most recent basin prioritization process. Groundwater levels in the project area have been reported at approximately 10 feet below the existing ground surface. In the event that temporary groundwater dewatering is required to provide a dry work area during certain construction activities, such as utility trenching, dewatering methods would involve pumping water out of a trench or excavation area. Such dewatering would be temporary and prolonged lowering of the groundwater levels in any one location would not be necessary. Such temporary dewatering would have, at most, a very small effect on localized water levels in the immediate vicinity of the excavation area. No substantial deficit in the local groundwater basin or lowering of water levels would occur. Therefore, the impact on groundwater from construction-related dewatering would be less than significant.

Following construction, the domestic water supply for the project would be provided by the City of Napa's municipal water system, and the landscape irrigation supply for the project would be provided in the form of recycled water from the Napa Sanitation District. Therefore, the project would not utilize or decrease groundwater supplies at the project site. In relation to groundwater recharge, the project would result in the installation of new impervious surfaces on the project site. However, the project would incorporate open areas, such as bioretention areas and landscaped courtyard areas conforming to Napa County storm water management standards. Although the project would increase

the amount of impervious surface at the site compared to existing conditions, such increases are not anticipated to impact the ability of water to infiltrate into the ground given the proposed on-site storm water bioretention areas. The project's minimal effect on groundwater recharge would not interfere substantially with groundwater recharge at the project site. The impact would be less than significant.

c i) Would the project substantially alter the existing drainage pattern of the site or area, including through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

Existing drainage in the project area is dominated by Tulucay Creek, which flows west to the Napa River. The existing storm water collection system in the project area conveys water from Magnolia Drive via an existing 24-inch diameter outfall pipe that discharges to a vegetated natural drainage south of the existing roundabout. The Tulucay Creek channel and adjacent floodplain would remain unaltered by project construction and operation. As part of the proposed project, storm water associated with new impervious surfaces would be collected via storm water features, including storm water bioretention areas designed to comply with the County of Napa standards. This includes compliance with storm water design standards, including drainage management areas, numeric sizing criteria for storm water retention and treatment prior to discharge, site design measures to reduce runoff, storm water treatment measures, and hydromodification guidelines. Storm water would be released at the same rate as pre-project conditions up to a required design storm, ultimately discharging to the same outfall pipe as under existing conditions. As a result, potential on- or off-site erosion or siltation due to increases in impervious surfaces would be less than significant.

Please refer to Impact 'a' for an evaluation of erosion or siltation relative to project construction activities.

c ii - iv) Substantially alter the existing drainage pattern which results in substantial flooding on- or off-site, exceed the capacity of drainage systems or substantial sources of polluted runoff, or impede or redirect flood flows? (Less than Significant)

The area of proposed improvements is not located within a mapped 100-year or 500-year flood zone or within a floodway or other special flood hazard zone (FEMA 2016). Areas to the immediate west and north of the project site are within mapped 100-year and 500-year flood zones associated with the flood plain corridor associated with the Napa River and Tulucay Creek.

Although the project would create new impervious surface, it is not anticipated that the additional runoff generated by the proposed improvements would result in flooding on- or off-site. Storm water generated as a result of the new impervious surfaces would be captured by the proposed permanent storm water bioretention features which have been designed to comply with County of Napa standards. The storm water components would be installed in order to retain the increase in storm water runoff to mimic pre-development hydrologic conditions. The components and drainage infrastructure would work with the existing topography of the site and would not significantly alter the existing drainage pattern of the project site. Implementation of the on-site storm water infrastructure would ensure the planned storm water drainage system has adequate capacity to serve the project. Additionally, the proposed storm water bioretention features would provide water quality treatment prior to the storm water entering the off-site drainage system. Therefore, the project would not impede or redirect flood flows, and the impact related to on-or off-site flooding, exceeding the capacity of the storm water drainage system or providing additional sources of polluted runoff would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (Less than Significant)

The project site is outside of the nearest mapped tsunami inundation area (CEMA et. al. 2009), and due to its location outside of any nearby enclosed water body, such as a lake, the occurrence of a seiche is unlikely. The project site is located in a relatively flat developed area and the potential for mudflows is considered unlikely. The risk of releasing pollutants due to project inundation would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (No Impact)

The project site is located within the area subject to the San Francisco Bay Water Quality Control Board's Basin Plan (Basin Plan). The Basin Plan lists action plans and policies to achieve water quality objectives, protect present and future beneficial water uses, protect public health, and prevent nuisance. As described under Impact 'a', the project will comply with applicable storm water standards and permits that are specifically designed to reduce potential water quality impacts to a less-than-significant level. The project as proposed would not conflict with or obstruct implementation of the regional Basin Plan. Therefore, no impact related to obstruction of the Basin Plan would result.

As described in Impact 'b' above, the project would not utilize or decrease groundwater supplies at the project site or substantially interfere with groundwater recharge. The Napa Valley Groundwater Subbasin is not presently subject to a Sustainable Groundwater Management Plan. There are no site specific standards for groundwater management within the Napa Valley Subbasin that the project would conflict with. No impact would result.

3.11 Land Use and Planning

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

a) Physically divide an established community? (No Impact)

Division of an established community typically occurs when a new physical feature, in the form of a highway or railroad, physically transects an area, thereby removing mobility and access within an established community. The majority of the project site is currently vacant and surrounded by College facilities and public roadways. There are no components of the project that would reduce mobility, access, or otherwise preclude continuity of established land uses in the project area. Therefore, no impact related to division of an established community would result.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? (Less than Significant with Mitigation)

The project site has a land use designation of Public Serving (PS) as defined in the Napa General Plan. This land use designation provides for public and quasi-public sites dedicated to community serving purposes, such as government offices and related community service facilities, city-wide and community parkland, public schools of all levels and private schools with a significant enrollment, and public health facilities. The project site is zoned Public, Quasi-Public Schools and Health Facilities (PQ). This zone district provides for public and quasi-public properties dedicated to community serving purposes, such as public schools of all levels, private schools with a significant enrollment, major community health facilities and related community service facilities. This PQ district is intended for public and quasi-public uses which because of their size, location and significance are designated "Public Serving" in the General Plan. The project would not exceed any applicable height limitations or setbacks associated with the PQ zoning district. In June 2004, the Board of Trustees of the College voted in favor of self-exemption from the City of Napa Zoning Code requirements under Government Code Section 53094. This action was taken at the request of the City of Napa in order to remove the need for the college to obtain a Conditional Use Permit from the City.

Specific Napa General Plan policies adopted for the purpose of avoiding environmental effects are evaluated throughout this Initial Study under the corresponding issue areas. For example, policies related to scenic view corridors are evaluated in Section 3.1 (Aesthetics). Where potential conflicts are identified, environmental protection actions and/or mitigation measures are identified. Therefore, a less-than-significant impact with mitigation would occur.

A portion of the proposed parking lot would be constructed above a former landfill located on the southwest portion of the project site. The waste materials were deposited by the Napa State Hospital prior to 1960 and are covered with clean soil to minimize surface contact. The landfill is currently

monitored under the Solid Waste Program of the Napa County Planning, Building & Environmental Services Department. As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 1 is included as part of the project, requiring project compliance with State Minimum Standards. This would include preparing and implementing work plans for pre-construction waste characterization and remedial actions for the former disposal site pursuant to 27 and 14 CCR. The requirements are an enforceable part of the Napa County Planning, Building & Environmental Services Solid Waste Program for landfills within the County of Napa. Options for compliance with 27 and 14 CCR include full waste removal or leaving the existing waste in-place and implementing a capping remediation and Postclosure Land Use Plan. With required implementation of Environmental Protection Action 1, the project would not conflict with applicable regulations related to solid waste facilities. The impact would be less than significant.

3.12 Mineral Resources

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

a, b) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (No Impact)

No mineral resources have been identified on the College campus property. Construction and operation of the project would not affect existing mining operations or result in the loss of availability of a known mineral resource. No impact would result.

3.13 Noise

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

Potential noise impacts is evaluated based on the findings of an environmental noise assessment performed by Illingworth & Rodkin (Illingworth & Rodkin 2020, Appendix B).

a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less than Significant)

Construction

Section 8.08.025 of the Napa Municipal Code regulates noise from construction activity. Construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, with no startup of machines nor equipment prior to 8:00 a.m., no delivery of materials nor equipment prior to 7:30 a.m. nor past 5:00 p.m., no cleaning of machines nor equipment past 6:00 p.m., and no servicing of equipment past 6:45 p.m. Construction on weekends and legal holidays is limited to the hours of 8:00 a.m. to 4:00 p.m. Additionally, construction noise reduction measures are provided. Project construction is expected to begin in the summer of 2021 and last approximately 20 to 22 months. Construction would take place within the hours defined in the Napa Municipal Code as described above.

Construction activities for the project would be typically carried out in stages. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at

which the equipment is operating. Impact pile driving is not proposed as a method of construction for the project. Typical construction noise levels at a distance of 50 feet are shown in Tables 3.13-1.

Table 3.13-1 Typical Ranges of Construction Noise Levels at 50 feet, Leq (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973; Illingworth and Rodkin 2020

I - All pertinent equipment present at site.

II - Minimum required equipment present at site.

Using typical construction noise levels for domestic housing as shown in Table 3.13-1, noise from construction may reach up to 88 dBA Leq at a distance of 50 feet. The nearest residence to the site is located approximately 650 feet southeast of the site along Magnolia Drive. At this distance, construction noise levels may reach up to 63 to 66 dBA Leq during busy periods of construction when multiple pieces of equipment are in operation. Noise levels at the nearest non-residential use, a Napa State Hospital building located approximately 400 feet to the east along SR 221/Napa-Vallejo Highway may reach up to 66 to 70 dBA Leq during busy periods of construction when multiple pieces of equipment are in operation.

Existing noise at the nearest receptors would be characterized primarily by traffic along SR 221/Napa-Vallejo Highway. Following this and based on the Napa General Plan's roadway noise contours, at their respective distances from SR 221/Napa-Vallejo Highway, the nearest residence is exposed to existing traffic noise levels of approximately 66 dBA CNEL, and the Napa State Hospital building to existing traffic noise levels of approximately 69 dBA CNEL. Because all construction activities for the project are proposed to be conducted in accordance with Section 8.08.025 of the Napa Municipal Code, noise generated by construction activities would not exceed 5 dBA over the ambient and would not be in excess of the established standards. This would be a less-than-significant impact.

Operation

Permanent Noise from On-Site Operations

Operational noise sources proposed with the project include mechanical equipment, parking, and activities in outdoor courtyard areas. The Napa General Plan establishes 65 dBA CNEL as the "normally acceptable" noise exposure level for residential land uses and 70 dBA CNEL as the "normally acceptable" noise exposure level for hospital and school uses.

The proposed project would include mechanical equipment, such as heating, ventilation, and air conditioning systems. Typically, mechanical equipment used for multi-family residential buildings would be anticipated to generate noise levels in the range of 50 to 60 dBA at a distance of 50 feet

from the equipment, depending on the equipment selected. Equipment located inside or in a fully enclosed room with a roof would not be anticipated to be audible at off-site locations.

Assuming 24-hour per day operations, mechanical equipment producing hourly average noise levels of 58 dBA Leq would produce a CNEL noise level of 65 dBA CNEL. Therefore, in order to maintain noise levels at or below 65 dBA CNEL (the “normally acceptable” noise exposure level for residential land uses), project mechanical equipment should not produce noise levels exceeding 58 dBA Leq at nearest residential property lines. In order to maintain noise levels at or below 70 dBA CNEL (the “normally acceptable” noise exposure level for hospital and school land uses), project mechanical equipment should not produce noise levels exceeding 63 dBA Leq at the nearest hospital or school property line.

Assuming a credible worst-case analysis, with mechanical equipment generating a noise level of 60 dBA Leq at 50 feet, mechanical equipment noise at the nearest residence, located approximately 650 feet southeast of the site along Magnolia Drive, would be 38 dBA Leq, not taking shielding into account. At the nearest non-residential sensitive use, a Napa State Hospital building located approximately 400 feet to the east, unshielded equipment would generate a noise level of 42 dBA Leq. At the Napa Valley College Performing Arts Center, located approximately 480 feet south of the project site, the noise level would be 40 dBA Leq. Mechanical equipment is not anticipated to result in noise levels exceeding 60 dBA CNEL at residential uses or 70 dBA CNEL at non-residential uses and would likely not be audible above ambient levels.

The California Collaborative for High-Performance Schools (CHPS) Best Practices Manual, 2009 Edition sets a standard of 45 dBA Leq for the maximum background noise level in unoccupied classrooms. Assuming a 20 dBA reduction of exterior-to-interior noise, mechanical equipment originating from the project site would have to exceed 65 dBA Leq at the exterior of the classroom façade to exceed the CHPS standard at existing College classrooms. Mechanical equipment would be anticipated to be 40 dBA Leq or less at the exterior of the classrooms and would not exceed the CHPS standard.

The site currently contains a parking lot for use by College students and faculty. The new parking lot, to be located on the west side of the project site, would increase the amount of parking at the site from about 150 spaces to 226 spaces. This increase in spaces would be offset by the shifting the parking lot to the west, further from receptors, and by the partial shielding of the parking lot by proposed site buildings. As a result, proposed parking would not result in a substantial increase over the existing parking lot noise.

The Multi-purpose Communal Space and courtyard are located 400 feet or greater from nearby noise sensitive land uses and are well shielded by the proposed site buildings. As a result, use of these facilities are not anticipated to result in substantial noise levels at nearby receptors. Noise impacts from on-site operations would be less than significant.

Permanent Noise Increases from Project Traffic

A significant noise impact would occur if traffic generated by the project would substantially increase noise levels at sensitive receptors in the project vicinity. A substantial increase would occur if: a) the noise level increase is 5 dBA CNEL or greater, with a future noise level of less than 60 dBA CNEL, or b) the noise level increase is 3 dBA CNEL or greater, with a future noise level of 60 dBA CNEL or greater. For reference, traffic volumes would have to double for noise levels to increase by 3 dBA CNEL and triple for noise levels to increase by 5 dBA CNEL. As discussed in Section 3.18 (Transportation), the project would result in a decrease in vehicle miles traveled. Given this, and that traffic noise in the project vicinity is characterized primarily by activity on SR 221/Napa-Vallejo Highway, which is anticipated to increase by 2 dBA by 2039 in the absence of the project, the project

will not result in a traffic noise increase of 3 dBA CNEL or greater. The impact would be less than significant.

b) Result in generation of excessive groundborne vibration or noise levels? (Less than Significant)

For structural damage, the California Department of Transportation (Caltrans) recommends a vibration limit of 0.5 in/sec Peak Particle Velocity (PPV) for new residential and modern commercial/industrial structures, 0.3 in/sec PPV for older residential structures, and a limit of 0.25 in/sec PPV for historic and some old buildings. The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include site demolition, preparation work, foundation work, and new building framing and finishing. Pile driving, which can cause excessive levels of vibration, is not anticipated as a method of construction.

Table 3.13-2 presents typical vibration levels that could be expected from construction equipment at a reference distance of 25 feet and calculated levels at other distances representative of sensitive receptors in the vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. As indicated below in Table 3.13-2, vibration levels as a result of project construction would not exceed any limits recommended by Caltrans at the nearest structures. The impact would be less than significant.

Table 3.13-2 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	PPV at 400 ft. (in/sec)	PPV at 480 ft. (in/sec)	PPV at 550 ft. (in/sec)
Clam shovel drop		0.202	0.010	0.008	0.007
Hydromill (slurry wall)	in soil	0.008	0.000	0.000	0.000
	in rock	0.017	0.001	0.001	0.001
Vibratory Roller		0.210	0.010	0.008	0.007
Hoe Ram		0.089	0.004	0.003	0.003
Large bulldozer		0.089	0.004	0.003	0.003
Caisson drilling		0.089	0.004	0.003	0.003
Loaded trucks		0.076	0.004	0.003	0.003
Jackhammer		0.035	0.002	0.001	0.001
Small bulldozer		0.003	0.000	0.000	0.000

Source: Illingworth & Rodkin, 2020

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (No Impact)

The nearest public airport to the project site is the Napa County Airport, located approximately 3.8 miles to the south of the project site. The project site is not located within an airport land use plan or within two miles of a public airport, and is located approximately 2.5 miles north of the 55 CNEL noise contour identified for the Napa County Airport in the 2008 Napa County Airport Master Plan Environmental Assessment. Therefore, the project would not expose people to noise in the vicinity of an airport. No impact would result.

3.14 Population and Housing

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

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (Less than Significant)

Residents of the proposed student housing facility would consist either of current students who live off-campus or new students that would otherwise live off-campus. The project is not intended to increase the overall enrollment at the College or to increase population growth.

The project site is located within the grounds of the existing College campus. The project would not extend infrastructure or roads into areas that have not previously been accessible or developed. Vehicular access to the project site would occur from Magnolia Drive, which is an existing college driveway entrance. The project is expected to result in a reduction of commute trips to campus because a portion of the student body would live on-campus and would walk or bike to class. As described in Section 3.17 (Transportation), based on data from the Metropolitan Transportation Commission regional travel demand model, even if the project were conventional apartments (and not student housing) it could be expected to have a per capita vehicle mile travel rate that is more than 15 percent below the countywide average. The project would connect to existing water, wastewater, and energy utilities located adjacent to the project. The College is an existing water and wastewater customer of the City of Napa and NapaSan, respectively. Both the City of Napa and NapaSan have issued the project “will serve” letters for provision of potable water for fire and domestic use and for sanitary sewer service. The potential impact from unplanned growth would be less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)

No housing or people would be displaced by the project and no replacement housing would be required. No impact would result.

3.15 Public Services

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

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for public services? (Less than Significant)

Fire Protection

The project would result in the construction of additional College campus facilities within the service area of the Napa City Fire Department. The nearest fire station to the project site is Napa Fire Station #4, located at 251 Gasser Drive approximately 0.5 mile north of the site. Fire Station #4 houses multiple fire engines. While Fire Station #4 would be the first to respond to an emergency at the project site, the three additional Napa Fire Department Stations in the City could also respond depending on the nature of the emergency. The Napa Fire Department also maintains mutual assistance agreements with the Napa County Fire Department and the California Department of Forestry and Fire Protection, both of which may assist the Napa Fire Department if requested to do so.

The Napa General Plan establishes performance standards for the Napa Fire Department, including a maximum response time goal of five minutes and a desired 1.5-mile service radius between a site and a fire station. The project site is approximately 0.5 mile from Fire Station #4, and is therefore within the Department's desired service radius. For fire water, the project would include installation of a new private fire water service main to provide water to the building sprinkler system and proposed on-site fire hydrants. The project would include full automatic sprinkler systems throughout the buildings. The new fire water service will connect to an existing water main located west of and parallel to SR 221/Napa-Vallejo Highway. The project would include onsite fire hydrants placed throughout the project site to provide fire hose coverage in accordance with Napa Fire Department standards. The project also includes an emergency vehicle access easement around the perimeter

of the project site with the exception of the far western side of the site, where access would be provided through a proposed 24-foot drive aisle through the parking lot. These widths are typically adequate to provide suitable emergency access for ladder trucks and the required stabilizers to access the proposed multi-story buildings on the site. The parking lot design would be required to conform to current standards with adequate space for turnarounds. Fire flow systems would be required to meet fire flow requirements of the California Fire Code. Overall, the project would not require the City of Napa to construct new or physically altered fire department facilities. No information has come to light indicating that the area is underserved or that there are water service deficiencies in the project area. Therefore, implementation of the proposed project would not necessitate the construction of additional fire department facilities within the City. The impact would be less than significant.

Police Protection

The College Police Department would provide the primary police presence for the project. The College Police Department handles the vast majority of criminal behavior and emergency situations on campus, and coordinates assistance and investigation with outside agencies, including the Napa Police Department, as necessary. The project would be required to comply with State security requirements for student housing facilities, including implementation of a site security plan. The nearest Napa Police Department station to the project site is located at 1539 First Street in downtown Napa. Unlike fire protection services, police units are often in a mobile state; hence, the number of officers on patrol is more directly related to response time, or the total time from when a call requesting assistance is placed until the time that a police unit responds to the scene. The Napa General Plan establishes a five-minute response time goal for Priority 1 calls. Because the on-site College Police Department would provide the primary police presence for the project, the project would not require the City of Napa to construct new or physically altered police department facilities within the City of Napa or at the College. The impact would be less than significant.

Schools

While the project would primarily serve existing and future College students, the project may result in a small increase in K-12 education students from family student housing units. Education for K-12 students would be provided for by the Napa Valley Unified School District which operates elementary, middle, and high schools within two miles of the project site. Because of the minimal introduction of new school age children in the project area and the number of surrounding schools in the project vicinity, the school district would have the capacity to enroll any additional K-12 students that may live in the proposed development. Implementation of the project would not necessitate or facilitate construction of new schools resulting in environmental impacts. The impact would be less than significant.

Parks and Other Facilities

The project could result in more people in the project area utilizing local and regional parks and other recreational facilities. Publically accessible recreational land is located in the immediate vicinity of the project site and the College campus, including the Class I multi-use Napa Valley Vine Trail, which provides direct access to Kennedy Memorial Park located south of the College. Other regional parks in the project area include Napa Valley Memorial Park, Skyline Wilderness Park, Shurtleff Park, and Camille Park. Given the number of existing parks and recreational options available at the College and in the project vicinity, the project would not increase use of parks such that provision of new parks or expansion of existing parks or other facilities would be needed. The impact would be less than significant.

3.16 Recreation

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?			✓	

a, b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or include or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? (Less than Significant)

The project could result in more people in the project area utilizing local and regional parks and other recreational facilities. Publically accessible recreational land is located in the immediate vicinity of the project site, including direct access to the Class I multi-use Napa Valley Vine Trail via a trail spur from the project site. The Napa Valley Vine Trail provides direct access to Kennedy Memorial Park located south of the College, which contains softball fields, volleyball courts, a skate park and BMX track all within one mile of the project site. Other regional parks in the project area include Napa Valley Memorial Park, Skyline Wilderness Park, Shurtleff Park, and Camille Park. The park and campus recreational amenities function at the regional and institutional scale. As such, they support the use by large numbers of people. Due to the trail connectivity and close proximity, the residents are likely to walk or bike to make use of the parks which may reduce potential parking impacts. Given the number of existing park and recreational options available at the College and in the project vicinity, the project would not increase use of parks such that substantial physical deterioration would occur or such that expansion of recreational facilities would be required. The impact would be less than significant.

3.17 Transportation

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

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (Less than Significant with Mitigation)

Transit Facilities

The Napa Valley Transportation Authority's (NVTA) VINE Transit system operates eight regional and local bus routes in the vicinity of the project site. These include Routes 10 (Up Valley Connector), 11 (Napa Vallejo Connector), 11X (Napa Vallejo Express), 21 (Napa Solano Express), B (Westwood/South Napa), D (Southeast Napa), F (Southwest Napa), and G (Coombs). There are four bus stops that, taken together, provide service for these routes. The stops are located at the intersections of SR 221/Napa-Vallejo Highway and Magnolia Drive, West Imola Avenue/Gasser Avenue, Soscol Avenue/Kansas Avenue, and at the College campus at James Diemer Drive. The existing transit routes and facilities are adequate to accommodate project-generated transit trips. Existing and proposed stops are within acceptable walking distance of the site. No transit-related conflict would result.

Bicycle and Pedestrian Facilities

Several existing bicycle and pedestrian facilities would provide access to and within the campus as well as along some streets in the surrounding area. An existing Class I bicycle path travels east-west along the north side of Magnolia Drive, which connects to a bus stop at the intersection of SR 221/Napa-Vallejo Highway and Magnolia Drive, and which extends west and connects to the Napa Valley Vine Trail. Within the College campus, an existing north-south walkway would provide a link between the proposed housing development and the educational facilities more centrally located on the campus.

Off-site pedestrian facilities exist along select streets, though there also are gaps in the network. There are currently no sidewalks located along the College frontage on SR 221/Napa-Vallejo Highway, though sidewalks are present on the eastern (northbound) side of the roadway north of Magnolia Drive. There are currently no sidewalks present along the south (eastbound) side of SR

121/Imola Avenue between SR 221/Napa-Vallejo Highway and Gasser Drive, located north of the College campus. West of Gasser Drive, a sidewalk is present which continues to the Napa River. The Napa Valley Vine Trail runs north-south between the campus and the Napa River, providing bicycle and pedestrian connections to Kennedy Park to the south and downtown Napa to the north, with a grade-separated undercrossing of SR 121/Imola Avenue. Crosswalks are present on the north and east legs of the intersection of SR 221/Napa-Vallejo Highway with SR 121/Imola Avenue.

In addition to the existing facilities, several future bicycle and pedestrian facilities along the project frontages have been identified in City and regional plans, as indicated in Table 3.17-1.

Table 3-17-1 Bicycle Facility Summary

Status / Facility	Class	Length (miles)	Begin Point	End Point
Existing Facility				
Napa Valley Vine Trail	I	2.3	3rd St	Kennedy Park
W Imola Ave	II	1.3	SR 29	Napa Valley Hwy/Soscol Ave
Roy Patrick Dr	III	0.4	Streblow Dr	Campus
Internal campus path	I	0.3	Vine Trail	Napa-Vallejo Hwy
Planned Facility				
Napa-Vallejo Hwy	I	1.6	W Imola Ave	Kaiser Rd
Napa Valley College Path along Roy Patrick Dr	I	0.2	W Imola Ave	College Way
Napa-Vallejo Hwy*	II	1,4	Kaiser Rd	Magnolia Dr
Imola Ave**	TBD	3.1	Kaiser Rd	Eastern City limits

Source: NVTA 2019

* Project included in City plan and Caltrans District 4 Bicycle Plan
** Project would represent an upgrade of existing bike lanes on Imola Ave

Future improvements along SR 221/Napa-Vallejo Highway and SR 121/Imola Avenue have been identified in adopted plans, as noted in Table 3.17-1 above. Both roadways are under Caltrans jurisdiction. The NVTA is currently designing the Imola Corridor Complete Streets Improvement Plan, which would include improvements to SR 121/Imola Avenue. Draft concept plans for the Imola Corridor Complete Streets Improvement Plan include the following improvements that would benefit residents of the project:

- Class I multi-use path along the south side of SR 121/ Imola Avenue from the Napa Valley Vine Trail to the SR 221/Napa-Vallejo Highway intersection.
- Buffered bike lanes along SR 121/ Imola Avenue.
- Enhancements to the intersections of SR 121/Imola Avenue at Gasser Drive and South Napa Market Place, including marked crosswalks on all legs of both intersections.
- Redesign of the intersection of SR 121/Imola Avenue at SR 221/Napa-Vallejo Highway, providing enhanced facilities for pedestrians and bicyclists while maintaining adequate access for vehicular traffic. This includes marked crosswalks on all legs of the intersection, bike boxes to assist left turn movements for bicyclists, and modifications of the corners to facilitate pedestrian crossings.

Because of the proximity of the project site to commercial land uses north of SR 121/Imola Avenue, the project is expected to generate pedestrian and bicycle trips and an associated need for facilities to adequately accommodate these transportation modes. The implementation of the above-

mentioned regional improvements by other agencies would enhance access between the project site and the South Napa Market Place on the north side of SR 121/Imola Avenue, as well as other commercial uses in the area. However, until such facilities are completed, the existing gaps in the off-site bicycle and pedestrian facility network limits direct access routes between the site and SR 121/Imola Avenue and the commercial land use destinations. Therefore, the existing bicycle and pedestrian facilities serving the project site would not be adequate until future completion of the regional improvements. The impact would be significant.

Mitigation

Mitigation Measures TR-1 would reduce the impact from inadequate bicycle and pedestrian facilities to a less-than-significant level by requiring coordination for a future pedestrian path connection from the College to SR 121/Imola Avenue in accordance with the City of Napa Bicycle Plan, and implementation of a bikeshare program.

Mitigation Measure TR-1: Coordinate Planned Bicycle Connection and Implement Bikeshare Program

The College shall identify adequate right-of-way on the Napa Valley College campus to provide space for a future pedestrian and bicycle connection from SR 121/Imola Avenue, consistent with the City of Napa Bicycle Plan. The College shall coordinate with the appropriate agencies and stakeholders during future efforts to design and implement pedestrian and bicycle facilities to provide connectivity between the project site, SR 121/Imola Avenue, and nearby commercial land uses. The preferred route should be selected based on further evaluation and the implementation schedule for improvements identified through the Imola Corridor Complete Streets Improvement Plan. Until such improvements are in place, the College shall enact a bikeshare program to support bicycle transportation from the student housing development and to enhance access to nearby shopping areas and downtown Napa.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? (Less than Significant)

CEQA Guidelines § 15064.3, Subdivision (b) indicates that land use projects would have a significant impact if the project resulted in vehicle miles traveled (VMT) exceeding an applicable threshold of significance. It further notes that if existing models or methods are not available to estimate the VMT for the project being considered, a lead agency may analyze the project's VMT qualitatively. The City of Napa currently has no thresholds of significance related to VMT, and as of the date of the analysis, a regional travel demand model for Napa County is under development but not yet available for VMT analysis. As a result, the project-related VMT impacts were assessed based on the available quantitative and qualitative data as presented below.

The *Technical Advisory on Evaluating Transportation Impacts in CEQA*, published by the Governor's Office of Planning and Research (OPR) in 2018 (referred to as the "OPR Technical Advisory"), includes recommended thresholds of significance for environmental impacts based on VMT. The OPR Technical Advisory specifically references approaches for quantifying project-related VMT of residential, office, and retail land uses, and notes that lead agencies may develop thresholds for other land use types. A threshold of 15% below baseline conditions is recommended for these types of land uses. The proposed student project is different from residential projects in terms of its residents' travel patterns and therefore warrants consideration of different approaches to assessing VMT impacts. While residents of most housing projects commute to workplaces, schools or other

destinations that may be geographically dispersed, residents of on-campus housing must be students at the college and therefore the primary commute trips associated with the project are between student residences and the campus. The exception would be non-student residents of the family units, who may be commuting to other destinations. Therefore, the following analysis uses both the OPR Technical Advisory threshold as well as project-specific analysis.

One method of evaluating project-related VMT is to rely on data from a regional travel demand model. As noted above, the Napa countywide model is still under development. Data from the Metropolitan Transportation Commission (MTC) Travel Demand Model that was used in the development of Plan Bay Area 2040 was reviewed as another potential source of VMT data, recognizing that the MTC model has a much more coarsely-defined network than will be available in the forthcoming county model; further, it is now several years old. The Plan Bay Area 2040 EIR indicates that Napa County has a baseline (year 2015) per capita VMT of 20.6 miles. MTC model data for individual traffic analysis zones (TAZ) near the project site shows that the TAZ containing College currently has no residential uses, so no VMT per capita metric is reported. Averaging the per capita VMT values for the five adjacent TAZs that do have residential uses results in an estimated metric of 15.7 VMT per capita, which serves as a reasonable approximation of the per capita VMT that would be generated by conventional residential development in the project area. This estimate of 15.7 VMT per capita is approximately 24 percent lower than the Countywide average of 20.6 VMT per capita for Napa County. Using guidance for residential VMT thresholds contained in the OPR Technical Advisory, this suggests that the project would have a less than significant VMT impact since the per capita VMT for the project area is more than 15 percent below the regional average.

Recognizing that the travel characteristics of the student population living in the proposed student housing are likely to differ from the broader population, an analysis was also conducted based on responses to a student survey conducted by the College in 2019 which provided the zip codes of current student residences. Since the project would provide housing for existing students and is not associated with an increase in enrollment, the project's VMT impacts would be associated with the changes in travel patterns by students relocating from their current residences to the on-campus location.

The anticipated impacts of off-campus students relocating to on-campus residences was reviewed for three general trip types – commute, shopping, and recreation – based on the current student residence location and the nature of the land uses in the immediate vicinity of the project site.

Commute

For the student population, the primary commute trip is from the student's home to the campus. The current commute distances for each respondent were estimated based on the geographic center of each zip code to the campus. The total number of respondents, the estimated commute distance of respondents to campus, and the total commute distances for students are summarized in Table 3-17-2.

Table 3-17-2 Student Survey Respondent Residences by Zip Code

Student Survey Respondents	Round-Trip Distance to Napa Valley College (miles per student- weighted average)	Round-Trip Distance to Napa Valley College (total miles, all respondents)
608	24.2	14,712.4

Source: W-Trans 2020

Based on the combined distance of all campus commute trips, survey respondents had an average trip length of approximately 24.2 miles round trip from their home to the College campus, or an average trip distance of 12.1 miles. The proposed housing project is located less than one-half mile from all buildings on campus, which is a distance that is generally considered to be walkable or bikeable. Given the short distance to be traveled it is assumed that on-campus residents would use these modes for their campus commute trips and that the commute portion of residential VMT for these students would be zero.

Consideration was also given to the fact that the project would house approximately 500 students - 24 in family units in addition to the 476 individual students. It was therefore assumed that while the resident student would have a commute distance of zero, a second adult commuter and some children may reside in these units. The VMT associated with non-student residents was estimated using the derived 15.7 residential VMT per capita estimate for the MTC model assuming an average occupancy of 2.5 persons per family unit (or 1.5 persons beyond the student resident). The estimated reduction in daily commute miles is 11,534 miles, which is likely a conservative estimate as it is expected that students currently living in zip codes further from campus are more likely to choose to relocate to the on-campus housing. For example, 31.4 percent of the survey respondents indicated their place of residence in zip code 94558, which includes the college and extends north to include Yountville. If these locally-based students are excluded from the analysis, the current weighted average student commute distance would be approximately 27 percent higher at 30.8 miles per round trip as opposed to 24.2 miles. This would translate to the project having a larger reduction in commute-based VMT.

Shopping

Shopping trips made by a project's residents are taken to access groceries, clothing, food, and a variety of other products and services. The project site is located within one-half mile of several shopping destinations including South Napa Market Place, which includes a Raley's supermarket, Target, and a Starbucks; Century Napa Valley and XD movie theater; and numerous restaurants. Downtown Napa, approximately 1.5 miles away, includes a diverse concentration of commercial uses such as restaurants, bars, and other shopping. Since the incoming residents would be relocating from communities throughout the region, the distance required to access similar destinations from their current residences is unknown, so was assessed qualitatively. Based on the land use pattern in Napa County and other nearby communities, it is likely that most people moving to the proposed on-campus housing are currently required to travel greater distances to access shopping than would be the case if they were living on campus.

Recreational

Recreational trips may involve travel to both regional and local destinations. While inadequate information is available to assess regional recreational trips, the project would be proximate to numerous opportunities for local recreation. This includes the Napa Valley Vine Trail, a multi-use path adjacent to the campus that can be accessed via a direct path connection from the project site. The trail is itself a recreation destination as well as a means to access other destinations as noted above. Ultimately planned to extend from Vallejo to Calistoga, the existing segment near the project site connects to Kennedy Park and downtown Napa. Due to the proximity of such opportunities, it is expected that residents would choose local options for many of their recreational needs, resulting in a likely reduction in travel distance associated with these types of trips and in many cases a substitution of walking or bicycling trips for vehicle trips.

Summary

Residents of the proposed student housing facility would consist either of current students who live off-campus or new students that would otherwise live off-campus. The project is not intended to increase the overall enrollment at the College. As a result, the project is expected to result in a reduction of commute trips to campus because a portion of the student body would live on-campus and would walk or bike to class. The potential for the project to result in an adverse transportation impact to VMT was assessed using a combination of quantitative and qualitative approaches. Based on data from the MTC regional travel demand model, even if the project were conventional apartments (and not student housing) it could be expected to have a per capita VMT rate that is more than 15 percent below the countywide average. This would constitute a less-than-significant impact per OPR guidance. In further considering the project's function as student housing for the adjacent College campus, it was determined that the elimination of most commute-related trips for the project's residents would likely lead to a substantial reduction in VMT compared to existing conditions. The proximity of commercial land uses and recreation facilities to the project site would also be anticipated to have a beneficial impact on non-commute VMT associated with the project. Given these conditions, the project's impacts on VMT would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than Significant)

Construction

Construction of the project is proposed to begin in the summer of 2021 and would be completed over an approximately 20 to 22-month period. The number of construction-related vehicles traveling to and from the project site would vary on a daily basis. The heaviest traffic days are anticipated to require up to 40 haul truck trips on a peak day. In addition to haul trucks, it is anticipated that construction crew trips could require up to 24 trips per day. Therefore, on the busiest days of construction, approximately 64 vehicle trips could occur. Construction activities would include temporary work adjacent to the existing roundabout along Magnolia Drive during completion of the fourth leg of the intersection, as well as during installation of wastewater and recycled water utility lines. The construction activity would be temporary and would not require full closures of Magnolia Drive or substantial detouring of vehicular or bicycle and pedestrian traffic. If connection to an existing gas main on the east side of SR 221/Napa-Vallejo Highway is required for the project, the College and its construction contractor would be required to prepare traffic control plans for review and acceptance of planned work within the Caltrans right-of-way. Implementation of the traffic controls would then be required during construction, including the use of signs, flaggers, scheduling of any partial lane closures during off-peak hours, notifications to emergency responders and public transit agencies, and ability to accommodate access by emergency vehicles during construction. Through required compliance with Caltrans traffic control requirements, construction activities would not substantially increase hazards. The temporary construction-related impact would be less than significant.

Operation

Access to the proposed new parking lot would be accomplished through the addition of a fourth leg to the existing roundabout at the intersection of Magnolia Drive/James Diemer Drive on the college campus. This change would establish a more standard roundabout design and conformance to established design guidelines would be required for the improvements. The signalized intersection of SR 221/Napa-Vallejo Highway at Magnolia Avenue would continue to provide the primary access

to the project from the regional street network and would retain its current configuration with no proposed modifications. The project's impact related to creating potential hazards due to geometric design features or incompatible uses would be less than significant.

d) Result in inadequate emergency access? (Less than Significant)

The project includes an emergency vehicle access driveway provided to the site from Magnolia Drive. A 26-foot wide emergency vehicle access easement would also be provided around the perimeter of the project site with the exception of the far western side of the site, where access would be available via a proposed 24-foot drive aisle through the parking lot. These widths are adequate to provide suitable emergency access for ladder trucks and the required stabilizers to access the proposed multi-story buildings on the site. The parking lot design would be required to conform to current standards with adequate space for turnarounds. Therefore, emergency access is expected to be acceptable. The impact would be less than significant.

3.18 Tribal Cultural Resources

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

a,i, a.ii) Cause a substantial adverse change in the significance of a tribal cultural resource? (Less than Significant with Mitigation)

CEQA requires lead agencies to determine if a project would have a significant effect on tribal cultural resources. The CEQA Guidelines define tribal cultural resources as: (1) a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code Section 5024.1(c), and considering the significance of the resource to a California Native American tribe.

The College has no record of receiving requests for notification of proposed projects from California Native American tribes pursuant to Public Resources Code Section 21080.3.1. The College nevertheless initiated contact with Native American tribes as part of preparing this CEQA Initial Study and as part of the Archaeological Resources Study prepared for the project (ASC 2020). Efforts to identify tribal cultural resources that could be affected by the project included a search of records at the Northwest Information Center, literature review, consultation with the Native American Heritage Commission (NAHC), contact with appropriate local Native American Tribes, and a pedestrian archaeological survey of the project site.

On May 4, 2020, the NAHC was contacted to request a review of the Sacred Lands File for information on Native American cultural resources in the project area. On May 7, 2020, the NAHC responded with a list of tribal groups and individuals who may be able to provide information on potential cultural resources. The NAHC also responded that the search of the Sacred Lands File indicated the potential presence of a Sacred Site in the project vicinity. Scott Gabaldon, Chairperson of the Mishewal-Wappo Tribe of Alexander Valley, was identified by the NAHC as a contact person who may have knowledge of the resource.

On May 8, 2020, letters were mailed to the individuals listed by the NAHC requesting additional information. On May 18, 2020, Chairperson Gabaldon was additionally contacted via email informing him of the Sacred Site identified by the NAHC in the project area. A follow up email was sent to Chairperson Gabaldon on June 11, 2020, and a phone call was placed on June 25, 2020. No response has been received by Chairperson Gabaldon as of the date of this Initial Study.

On May 26, 2020, a response was received from the Yocha Dehe Wintun Nation Tribal Historic Preservation Officer Leland Kinter, who indicated that the project is located within the aboriginal territory of the Yocha Dehe Wintun Nation. On July 9, 2020, representatives of the College held a meeting with Laverne Bill of the Yocha Dehe Wintun Nation to discuss the project and the findings of the Archaeological Resources Study completed for the project. Although the Yocha Dehe Wintun Nation did not indicate known tribal resources existed at the project site, mitigation measures were discussed to address the potential for construction activities to encounter previously undiscovered surface or subsurface tribal cultural resources during initial project construction. If such resources were to represent unique tribal cultural resources as defined by CEQA, any substantial change to or destruction of these resources would be a significant impact.

Mitigation

Implementation of Mitigation Measures CR-1 (Archaeological Monitoring and Inadvertent Discovery Procedures), CR-2 (Coordinate with Yocha Dehe Wintun Nation Tribe regarding Cultural Training and Monitoring), and CR-3 (Protect Human Remains If Encountered during Construction) would be required for the project (please see Section 3.4, Cultural Resources for a full description of the mitigation measures). Implementation of Mitigation Measures CR-1 through CR-3 would reduce the potential impact to previously undiscovered tribal cultural resources to a less-than-significant level by requiring training of contractors, tribal and archaeological monitoring during initial ground disturbance, and procedures to be taken in the event of inadvertent discovery of resources consistent with appropriate laws and requirements.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			✓	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			✓	

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (Less than Significant)

Water

The College has coordinated with the City of Napa Water Division regarding anticipated domestic and fire water demands for the project. On May 18, 2020, the City of Napa Water Division issued a "Will Serve" letter for the project for provision of potable water for fire and domestic use (Napa 2020). The proposed water system connections are included as part of the project and analyzed as part of this Initial Study. Because the project-related water demands would be adequately met by the City of Napa's existing water supplies and treatment facilities, the project would not require the construction of additional water facilities. The impact would be less than significant.

Wastewater

The College has coordinated with the Napa Sanitation District (NapaSan) regarding anticipated domestic wastewater demands for the project. On July 14, 2020, NapaSan issued a "Conditional

Will Serve" letter for the project for provision of sanitary sewer service (NapaSan 2020). The will serve letter is conditioned on annexation of the project parcel to within NapaSan's Boundary, as well as installation of the requisite sanitary sewer and recycled water improvements, satisfaction of future NapaSan Conditions of Annexations, and payment of appropriate capacity and development fees. The proposed annexation of the parcel into NapaSan's Boundary and the conditioned sewer and recycled water improvements are included as part of the project and analyzed as part of this Initial Study. Therefore, the project-related wastewater demands would be adequately met by NapaSan's existing Soscol Wastewater Treatment Facility, and the project would not require the construction of additional off-site wastewater treatment facilities. The impact would be less than significant.

Storm Water

Storm water associated with new impervious surfaces would be collected via proposed on-site storm water features, including storm water bioretention areas which would be designed to comply with County of Napa standards. Storm water generated by project hardscapes would be released at the same rate as pre-project conditions during an applicable design storm, and would discharge to the same outfall pipe as under existing conditions. With implementation of the proposed on-site storm water infrastructure, the capacity of the existing storm water drainage system would have adequate capacity to serve the project. Therefore, no additional off-site storm water improvements are anticipated to be required to accommodate runoff from the project. The impact would be less than significant.

Other Utilities

Energy demands for the proposed project would be served from proposed pad mounted medium voltage transformers to be provided by PG&E. Each transformer would be located outside the building being served with the location to be coordinated with PG&E. An existing overhead electrical and telecommunication line located on the project site parallel to Magnolia Drive would be relocated underground, and one additional power pole on the project site may be relocated. If gas water heaters are required for the project, natural gas would be provided by PG&E from an existing gas main located on the east side of SR 221/Napa-Vallejo Highway. Any required natural gas infrastructure would be installed underground across SR 221/Napa-Vallejo Highway to tie-in to existing infrastructure. The project would connect to existing telecommunications infrastructure located on the College campus to support voice, data, and wireless communications services according to Napa Valley College IT Technology Standards. The potential environmental impacts associated with the utility improvements are evaluated as part of this Initial Study. No additional electrical, natural gas, or telecommunication facilities or expansion of existing facilities would be required to serve the project. The impact would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (Less than Significant)

As discussed in Impact "a", the College has coordinated with the City of Napa Water Division regarding anticipated domestic and fire water demands for the project. On May 18, 2020, the City of Napa Water Division issued a "Will Serve" letter for provision of potable water for fire and domestic use (Napa 2020), indicating that the City has sufficient water supplies available to serve the project. As outlined in Napa's 2015 Urban Water Management Plan (UWMP), if a supply shortfall occurs during a single-dry year, the City would enact the appropriate stage of the City's Water Shortage Plan to reduce customer demands to match available supplies (Napa 2015). This approach was used in 2015 in response to a state-wide drought, resulting in the City's water use being reduced 25% for the

12-month period between June 2015 and May 2016. As indicated in Napa's UWMP, the five stages of the Water Shortage Contingency Plan is capable of reducing water consumption in excess of 50%. The impact would be less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Less than Significant)

As discussed in Impact "a", the College has coordinated with NapaSan regarding anticipated wastewater demands for the project. On July 14, 2020, NapaSan issued a "Conditional Will Serve" letter for provision of sanitary sewer service (NapaSan 2020), indicating that the wastewater demands would be adequately served by NapaSan's existing Soscol Wastewater Treatment Facility. The impact would be less than significant.

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? (Less than Significant)

The project would generate approximately 0.56 tons of solid waste per day, or approximately 204 tons per year. Such volumes are based on a standard residential waste generation rate of 4.0 pounds per dwelling unit per day, as provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Napa Recycling and Waste Services would provide waste collection and transportation services for the project, including transport of solid waste from the project site to the Devlin Road Recycling and Transfer Station Facility located at 889 Devlin Road in the City of American Canyon. In addition to a recycling facility, the Transfer Station includes a mixed construction and demolition processing area to capture more recyclable material. From the Transfer Station Facility, solid waste is loaded into trucks and hauled to Potrero Hills Landfill located at 3675 Potrero Hill Lane in Suisun City, Solano County. The Potrero Hills Landfill is an active solid waste landfill with an allowable daily capacity of 4,330 tons per day and approximately 13.9 million cubic yards remaining capacity, and is permitted to remain in operation through 2048 (CalRecycle 2020). In addition, there are several other active permitted regional landfills in the project vicinity, including the Redwood Sanitary Landfill (26 million cubic yards remaining capacity), Vasco Road Landfill (7.4 million cubic yards remaining capacity), and Keller Canyon Landfill (63.4 million cubic yards remaining capacity) (CalRecycle 2020). The solid waste generated during construction and operation of the project would represent a small fraction of the daily permitted tonnage of these facilities. Solid waste from the project would not be expected to exceed the capacity of or otherwise adversely affect the Devlin Road Transfer Station or Potrero Hills Landfill. Therefore, the impact related to increased demand for solid waste and landfill space would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (Less than Significant)

A portion of the proposed parking lot would be constructed above a former closed landfill located on the southwest portion of the project site. The waste materials were deposited by the Napa State Hospital prior to 1960 and are covered with clean soil to minimize surface contact. The landfill is currently monitored under the Solid Waste Program of the Napa County Planning, Building & Environmental Services Department.

As summarized in Section 1.5.2 (Environmental Protection Actions Incorporated into the Project), implementation of Environmental Protection Action 1 is included as part of the project, requiring

project compliance with State Minimum Standards. This would include preparing and implementing work plans for pre-construction waste characterization and remedial actions for the former disposal site pursuant to 27 and 14 CCR. The requirements are an enforceable part of the Napa County Planning, Building & Environmental Services Solid Waste Program for landfills within the County of Napa. Options for compliance with 27 and 14 CCR include full waste removal or leaving the existing waste in-place and implementing a capping remediation and Postclosure Land Use Plan. With required implementation of Environmental Protection Action 1, the project would not conflict with applicable regulations related to solid waste facilities. The impact would be less than significant.

Also at the State level, the Integrated Waste Management Act mandates a reduction of waste being disposed and establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. The Napa Recycling and Waste Services has entered into a franchise agreement with the City of Napa to provide construction and demolition debris collection service within the city in accordance with Chapter 15.32 of the Napa Municipal Code. The State of California and the City of Napa require that large construction and demolition projects reuse or recycle at least 65% of the debris generated. Project construction and demolition activities would be required to comply with applicable solid waste regulations, and solid waste generated on-site would be required to be disposed of in accordance with all applicable federal and state regulations related to solid waste. The impact would be less than significant.

3.20 Wildfire

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

a-d) Substantially impair an adopted emergency response plan or emergency evacuation plan, exacerbate wildfire risks, or expose people or structures to risks? (No Impact)

The project site is not located in or contiguous to a State Responsibility Area (SRA) or lands classified as very high fire severity zones (VHFHSZ). The project site is located approximately 0.58 miles from the nearest designated SRA, and approximately 3.25 miles from the nearest lands classified as a VHFHSZ (CalFire FHSZ Viewer 2020). As such, the CEQA Guidelines Appendix G Checklist section for wildfire is not applicable to the project. No impact would result. Impacts related to potential exposure of people or structures to risks involving wildland fires is further evaluated in Section 3.7 (Hazards and Hazardous Materials).

3.21 Mandatory Findings of Significance

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

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Less than Significant with Mitigation)

Potential project impacts to biological and cultural resources are addressed in Section 3.4, Biological Resources, Section 3.5, Cultural Resources, and Section 3.18, Tribal Cultural Resources, respectively. With implementation of the recommended mitigation measures identified in this Initial Study, the potential for project-related activities to degrade the quality of the environment, including wildlife species or their habitat, plant or animal communities, or important examples of California history or prehistory would be reduced to less-than-significant levels.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? (Less than Significant)

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 taking place over a period of time. This cumulative impact analysis uses the list approach. A search was undertaken to identify other reasonably foreseeable projects that may have overlapping or cumulative impacts with the project. Efforts to identify cumulative projects included review on ongoing and planned projects at the College and review of local agency capital improvement program and community development project lists. Projects identified and considered for cumulative impacts include:

- Napa Valley Transit Authority Imola Corridor Complete Streets Improvement Plan – This cumulative project includes planned complete street improvements along the SR 121/Imola Avenue corridor including a shared use path on the south side of the corridor, Class II buffered bicycle lanes, pedestrian crosswalks at S Napa Market Place to provide access to business and destinations on the north side of the street, and multimodal improvements to the signalized intersection at SR 221/Napa-Vallejo Highway to create safer crossings for people walking and bicycling. The project also includes a connection to the Napa Valley Vine Trail to link recreation trail users to businesses along SR 121/Imola Avenue. The planning process began in the spring of 2019 and is anticipated to be completed in 2020. The schedule for implementation of the improvements in the Complete Streets Improvement Plan is dependent on future funding and no specific schedule is available.
- Caltrans Soscol Avenue Improvement Plan – This cumulative project includes planned widening of SR 221/Napa-Vallejo Highway to six lanes along with bicycle and pedestrian improvements. The schedule for completion of the improvements is dependent on future funding and no specific timeline is available.

As summarized in Section 3 of this IS/MND, the project would not result in impacts on agriculture and forestry resources, mineral resources, or wildfire. Therefore, implementation of the project would not contribute to any related cumulative impact on those resources.

Based on current schedules, the construction of the cumulative projects are not anticipated to overlap with construction of the proposed student housing development. The project impacts summarized in this IS/MND would not add appreciably to any existing or foreseeable future significant cumulative impact, such as visual quality, cultural resources, biological, traffic impacts, or air quality degradation. The impacts of the proposed project would be mitigated to a less-than-significant level. Incremental impacts, if any, would be very small, and the cumulative impact would be less than significant.

c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly? (Less than Significant with Mitigation)

With implementation of the recommended mitigation measures identified in this IS/MND, the potential for project-related activities to cause substantial adverse effects on human beings would be reduced to less-than-significant levels.

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Appendices

Appendix A Biological Resources Evaluation

Biological Resources Report

Napa Valley College Student Housing Project

Prepared for Napa Valley College

GHD | 718 Third Street, Eureka, California, 95501 USA

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List of Acronyms

APN	Assessor's Parcel Number
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
BRR	Biological Resources Report
CBR	considered but rejected
CCH	Consortium of California Herbaria
CDFW	California Department of Fish and Wildlife
FP	CDFW Fully Protected Animal
SSC	CDFW Species of Special Concern
WL	California Department of Fish and Wildlife Watch List
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Ranking
CWA	Clean Water Act
DOI	Department of the Interior
DPS	Distinct Population Segment
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FD	Federally Delisted
FE	Federal Endangered
FE	Federal Endangered
FGC	California Fish and Game Code
FMP	Fisheries Management Plans
FT	Federal Threatened
ft	feet/foot
HAPC	Habitat Areas of Particular Concern
IPaC	Information for Planning and Conservation
LSAA	Lake and Streambed Alteration Agreement
m	meter(s)
MBPA	Migratory Bird Protection Act
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPPA	Native Plant Protection Act
NVC	Napa Valley College
NVTA	Napa Valley Transit Authority
NWI	National Wetlands Inventory
P	Proposed for Federal Listing
PSB	Project Study Boundary
RWQCB	Regional Water Quality Board
SC	State candidate for listing

SE	State endangered
sf	square feet
SNCs	Sensitive Natural Communities
SR	State rare
SSC	Species of Special Concern
ST	State threatened
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
BCC	U.S. Fish and Wildlife Service Birds of Conservation Concern
WBWG_H	Western Bat Working Group High Priority

1. Introduction

The purpose of this Biological Resources Report (BRR) is to investigate and determine which sensitive biological resources (if any), including plants and wildlife species and their habitat, may occur in the footprint or vicinity of the Napa Valley College Student Housing Project (hereafter "Project," described below). Species listed as endangered or threatened under the federal or state Endangered Species Act (ESA and CESA respectively) or their designated critical habitat, as well as California state special status species and habitats are the primary focus of this BRR. Common species without special protections are not considered in this BRR. The purpose of the BRR is to inform CEQA analysis.

1.1 Project Area Location and Description

The Project site is located on the Napa Valley College (NVC) campus at 2277 Napa-Vallejo Highway within the city limits of Napa, near the city's southern boundary (**Appendix A - Figures, Figure 1 – Vicinity Map**). The Project would include improvements to a Napa Valley Community College District (hereafter "District") owned parcel, Assessor's Parcel Number (APN) 046-450-054.

The Project site is located within the City of Napa in the southern portion of the Napa Valley. Direct access to NVC and the Project site is provided from Napa-Vallejo Highway via an existing driveway at Magnolia Drive. Napa-Vallejo Highway is a major north-south four-lane highway beginning at its junction with State Route 29 in southern Napa and continuing north of Imola Avenue, where it becomes Soscol Avenue. Imola Avenue is a regional east-west arterial that runs from State Route 29 to locations east of the Napa-Vallejo Highway and forms the northern boundary of the NVC campus, but with no direct access to the campus. Imola Avenue intersects the Napa-Vallejo Highway at a signalized intersection at the northeast corner of campus near the Project site.

The existing Project site consists primarily of a gently sloping undeveloped lot with an approximately 52,000 square feet (sf) of asphalt paved surface parking lot that serves NVC. The existing parking lot has an incline up to a hill crest to its north, which then slopes down to the northern end of the Project site where there is a riparian corridor along Tulucay Creek (varying names exist referring to different channels of the same creek including Old, Historic, and New Tulucay Creek) just outside the Project boundary.

No buildings are located on the Project site. The undeveloped portion of the Project site is primarily composed of native and non-native grassland. Riparian vegetation occurs along two natural drainages bordering the site, composed of both native willow scrub (*Salix* spp.) with coast live oak (*Quercus agrifolia*) on the edges of the corridor and an understory of Himalayan blackberry (*Rubus armeniacus*). A fire in July 2004 burned much of the riparian area adjacent to the site. The herbaceous grassland at the Project site is composed primarily of non-native grasses such as slim oats (*Avena barbata*), wildoats (*A. fatua*), ripgut brome (*Bromus diandrus*), soft chess (*B. hordeaceus*), blue wildrye (*Elymus glaucus*), Italian rye grass (*Festuca perennis*), foxtail barley (*Hordeum murinum*), Seaside barley *(H. marinum),* and Harding grass (*Phalaris aquatica*). Shrubs located near the west side of the Project site include coyote brush (*Baccharis pilularis*), California buckwheat (*Eriogonum fasciculatum*), and French broom (*Genista monspessulana*).

The Project site is located within the Napa River watershed, and Old Tulucay Creek is located immediately north and west of the Project site. The Old Tulucay Creek channel flows directly into the Napa River approximately 0.4 mile west of the Project site. The Project site is not located within a mapped 100-year or 500-year flood zone (FEMA 2020); however, areas to the immediate west and north of the Project site are within mapped 100-year and 500-year flood zones (associated with the Napa River flood plain corridor).

1.2 Project Area History

A closed landfill associated with pre-1960 disposal of incinerator debris from historical Napa State Hospital operations is located on the westernmost portion of the Project site. Reportedly, waste was burned in an incinerator located in the Project site, and ash residuals were transported via a dirt road that connected the incinerator to the landfill disposal location. The landfill area is visible on aerial photographs in 1947 and 1958, but appears to be covered in vegetation in a 1968 aerial photograph.

1.3 Project Purpose and Goals

The Napa Valley College objectives for on-campus residential housing are to provide an affordable, quality on-campus living experience; promote an even more engaged and diverse population; enhance campus engagement; support recruitment and retention of students, faculty and staff; and extend campus integration with the community.

2. Project Description

2.1 Proposed Project

The proposed Project would include a mix of apartments and traditional dorm-style units, study rooms and social gathering spaces, a new vehicle connection and parking lot, new pedestrian connections, and new water, wastewater, and storm water infrastructure. These Project components are based on the proposed Project improvement plan, and each project component is summarized in more detail in the Project description for the Initial Study/Proposed Mitigated Negative Declaration.

The District anticipates that Project construction would begin in the summer of 2021 and take approximately 20 months to complete. Construction activities would generally occur Monday to Friday, 8 AM to 5 PM. The Project is not anticipated to require night time construction work or construction on weekends or legal holidays.

2.2 Definition of the Project Area

The “Project Area” is defined as the extent of construction activities associated with engineering design for the Project (**Appendix A, Figure 2 – Project Area**). The Project Area includes infrastructure construction areas, as well as staging and stockpiling areas, and areas of vegetation removal. The Project Area is bounded to the south by Magnolia Drive and to the east by Napa-

Vallejo Highway, and roughly bounded by the riparian corridors surrounding Tulucay Creek to the north and west (**Appendix A, Figure 2**).

2.3 Other Public Agencies Whose Approval is Required

Pending final design, approval from the following agencies may be required:

- Project approval by Napa Valley Community College District Board of Trustees;
- Construction approval from the Office of the Division of the State Architect;
- Well/Boring Permit and Post Closure Land Use Plan approval from Napa County Planning, Building & Environmental Services Department;
- Change of Organization approval from Napa County Local Agency Formation Commission for a change to the Napa Sanitation District service area to include the project parcel;
- Design review approval from the City of Napa Fire Department and City of Napa Utilities Department for fire protection facilities and water connections;
- Transportation Permit approval from Caltrans for any improvements or movement of oversized or excessive load vehicles on State roadways;
- State Water Resources Control Board (SWRCB) Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities; and
- Authority to Construct/Permit to Operate approval from Bay Area Air Quality Management District for operation and maintenance of an emergency backup generator, if utilized.

2.4 Known Ongoing and Previous Projects in the Area

Land uses to the west and south of the Project site and Napa Valley College are primarily recreational (e.g., John F. Kennedy Memorial Park). The park includes the Napa Golf Course, hiking trails, and recreational areas. Napa Valley Wine Train / Union Pacific Railroad tracks are also located west of the Project site, and further west is the Napa River and residential communities. To the north of the Project site, across State Route 121/Imola Avenue, is the South Napa Marketplace shopping center. East of the Project site, across State Route 221/Napa-Vallejo Highway, are the Napa State Hospital and a rock quarry.

Other planned projects in the area include the Napa Valley Transit Authority's (NVTA) Imola Corridor Complete Streets Improvement Plan. This project includes planned complete street improvements along the Imola Avenue corridor including a shared use path on the south side of the corridor, Class II buffered bicycle lanes, pedestrian crosswalks at S Napa Market Place to provide access to businesses and destinations on the north side of the street, and multimodal improvements to the signalized intersection at Soscol Avenue to create safer crossings for people walking and bicycling. The planning process for the NVTA's project began in the spring of 2019 and is anticipated to be completed in 2020. The schedule for implementation of the improvements in the Complete Streets Improvement Plan is dependent on future funding and no specific schedule is available.

Another planned project in the area is the Caltrans Soscol Avenue Improvement Plan. This project includes planned widening of Soscol Avenue to six lanes along with bicycle and pedestrian

improvements. The schedule for completion of the Soscol Avenue improvements is dependent on future funding and no specific schedule is available.

3. Regulatory Background

Following is an overview of agencies that have potential oversight of the proposed Project related to biological resources. The regulatory setting is divided into sections on federal and state jurisdiction.

3.1 Federal Jurisdiction

3.1.1 Endangered Species Act (ESA)

The ESA of 1973 (16 USC 1531 et seq.) establishes a national policy that all federal departments and agencies provide for the conservation of threatened and endangered species and their ecosystems. The Secretary of the Interior and the Secretary of Commerce are designated in the ESA as responsible for: (1) maintaining a list of species likely to become endangered within the foreseeable future throughout all or a significant portion of its range (threatened) and that are currently in danger of extinction throughout all or a significant portion of its range (endangered); (2) carrying out programs for the conservation of these species; and (3) rendering opinions regarding the impact of proposed federal actions on listed species. The ESA also outlines what constitutes unlawful taking, importation, sale, and possession of listed species and specifies civil and criminal penalties for unlawful activities.

Pursuant to the requirements of the ESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed or proposed species may be present in the project region, and whether the proposed project would result in a “take” of such species. The ESA prohibits “take” of a single threatened and endangered species except under certain circumstances and only with authorization from the USFWS or the National Oceanic and Atmospheric Administration (NOAA) Fisheries through a permit under Section 7 (for federal entities or federal actions) or 10(a) (for non-federal entities) of the Act. “Take” under the ESA includes activities such as “harass, harm, pursue, hunt shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS regulations define harm to include “significant habitat modification or degradation.” On June 29, 1995, a U.S. Supreme Court ruling further defined harm to include habitat modification “…where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the ESA, or result in the destruction or adverse modification of critical habitat for such species (16 USC 1536[3][4]). If it is determined that a project may result in the "take" of a federally-listed species, a permit would be required under Section 7 or Section 10 of the ESA.

Critical Habitat is defined by the ESA as a specific geographic area containing features essential for the conservation of an endangered or threatened species. Under Section 7 of the ESA, critical habitat should be evaluated if designated for federally listed species that may be present in the project Action Area (federally designated term for a “Project Study Boundary”).

3.1.2 Clean Water Act (CWA)

The CWA (1977, as amended) establishes the basic structure for regulating discharges of pollutants into waters of the U.S. It gives the U.S. Environmental Protection Agency (EPA) the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, without a permit under its provisions.

Discharge of fill material into “waters of the U.S.,” including wetlands, is regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA (33 USC 1251-1376). USACE regulations implementing Section 404 define “waters of the U.S.” to include intrastate waters (such as, lakes, rivers, streams, wetlands, and natural ponds) that the use, degradation, or destruction of could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3; 40 CFR 230.3). The placement of structures in “navigable waters of the U.S.” is also regulated by the USACE under Section 10 of the Federal Rivers and Harbors Act (33 USC 401 et seq.). Projects are approved by USACE under standard (i.e., individual) or general (i.e., nationwide, programmatic, or regional) permits. The type of permit is determined by the USACE and based on project parameters.

The USACE and the EPA announced the release of the Clean Water Rule on May 27, 2015 (80 FR 124: 37054-37127). The Rule is intended to ensure waters protected under the CWA are more precisely defined, more predictable, easier to understand, and consistent with the latest science. The intent is to: 1) clearly define and protect tributaries that impact the quality of downstream waters; 2) provide certainty in how far safeguards extend to nearby waters; 3) protect unique regional waters; 4) focus on streams instead of ditches; 5) maintain the status of waters associated with infrastructure (i.e., sewer systems); and 6) reduce the need for case specific analysis of all waters. The U.S. Court of Appeals for the Sixth Circuit stayed implementation of the Clean Water Rule pending further action of the court in October 2015. In response, the USACE and EPA resumed case-by-case analysis of waters of the U.S. determinations. Implementation of the Clean Water Rule was pending litigation prior to February 2017. An Executive Order (Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the “Waters of the United States” Rule) was signed on February 28, 2017, directing the USACE and EPA to review The Rule and publish for notice and comment a proposed rule rescinding or revising The Rule. The USACE and EPA subsequently published a Notice of Intention to Review and Rescind or Revise the Clean Water Rule in the Federal Register on March 6, 2017. The definition of “navigable waters” under the CWA along with The Rule is currently under review per the Executive Order.

The Fish and Wildlife Coordination Act requires consultation with the USFWS, NOAA Fisheries, and responsible state wildlife agency for any federally authorized action to control or modify surface waters. Therefore, any project proposed or permitted by the USACE under the CWA Section 404 must also be reviewed by the federal wildlife agencies and California Department of Fish and Wildlife (CDFW).

Section 401 of the CWA requires any applicant for a federal license or permit, which involves an activity that may result in a discharge of a pollutant into waters of the U.S., obtain a certification that the discharge will comply with applicable effluent limitations and water quality standards. CWA 401 certifications are issued by Regional Water Quality Control Boards (RWQCBs) under the California Environmental Protection Agency.

3.1.3 Executive Order 13112, Invasive Species

Executive Order 13112 was issued in 1999 to enhance federal coordination and response to the complex and accelerating problem of invasive species. It provides policy direction to promote coordinated efforts of federal, state, and local agencies in monitoring, detecting, preventing, evaluating, managing, and controlling the spread of invasive species and increasing the effectiveness of scientific research and public outreach affecting the spread and impacts of invasive species.

3.1.4 Migratory Bird Treaty Act (MBTA)

The MBTA of 1918 (16 USC 703-712) as amended established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. A migratory bird is defined as any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. The MBTA prohibits the take, possession, buying, selling, purchasing, or bartering of any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Only exotic species such as Rock Pigeons (*Columba livia*), House Sparrows (*Passer domesticus*), and European Starlings (*Sturnus vulgaris*) are exempt from protection.

In 2001, President Clinton defined “take” in Executive Order 13186 to include both “intentional” and “unintentional.” This was also the interpretation of the Act put forth in an earlier Solicitor’s Opinion (M-37041). However, in December of 2017, the Department of the Interior’s (DOI) Office of Solicitor argued via Opinion M-37050 that incidental take was not prohibited under the Migratory Bird Treaty Act (this interpretation of the Act was also upheld in 2015 by the 5th Circuit in *United States v. CITGO Petroleum Corp*.). Opinion M-37050 was the subject of a lawsuit between eight U.S. states and the U.S. DOI.

In January of 2020, representative Alan Lowenthal and 18 bipartisan sponsors introduced the federal Migratory Bird Protection Act (H.R. 5552). The purpose of this bill was to “[a]mend the Migratory Bird Treaty Act to affirm that the Migratory Bird Treaty Act’s prohibition on the unauthorized take or killing of migratory birds includes incidental take by commercial activities, and to direct the United States Fish and Wildlife Service to regulate such incidental take, and for other purposes” (H.R. 5552). As of March 2020, this bill has yet to pass the House (Congress.gov 2020).

In February of 2020, the USFWS proposed a new rule to define the scope of the MBTA (85 FR 5915). The rule specifies that “the Service proposes to adopt a regulation defining the scope of the MBTA's prohibitions to reach only actions directed at migratory birds, their nests, or their eggs” and essentially codifies M-37050 (85 FR 5915). Public comment on this new proposed rule closed on March 19, 2020.

As of March 2020, the interpretation of “take” in the rule by the DOI did not include “incidental take.” This interpretation is currently the subject of litigation (Audubon 2020).

3.1.5 Bald and Golden Eagle Protection Act (BGEPA)

The Bald Eagle Protection Act was originally enacted in 1940 in order to protect the national emblem of the United States, the Bald Eagle (*Haliaeetus leucocephalus*). At this time, the Bald Eagle was experiencing significant population pressures from hunting, egg collection, and habitat loss (Buehler 2000). This act was expanded upon in 1962 to include protections for the Golden Eagle (*Aquila chrysaetos*). Similarly, the Golden Eagle was also experiencing precipitous population declines due to habitat loss, hunting, and electrocution from power lines (Kochert et al. 2002).

The current federal statute as amended (16 U.S.C. 668-668d) includes criminal penalties for anyone, including individuals, associations, partnerships, and corporations who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or in any manner any bald eagle commonly known as the American eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof” without a permit (16 U.S.C. § 668a). “Take” is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” (16 U.S.C. § 668c). “Disturb” is defined as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (50 CFR 22.3). Broadly construed, “take” may be applied to the protection of habitat around nest sites (Wisch 2002). Civil and criminal penalties may include monetary fines, imprisonment, a cancellation of grazing agreements on federal land, and a loss of property that was used in violating the act (e.g. boat, gun, or car). According to the USFWS, “a violation of the Act can result in a fine of up to $100,000 ($200,000 for organizations), imprisonment for one year, or both, for a first offense. Penalties increase substantially for additional offenses, and a second violation of this Act is a felony” (USFWS 2016). However, the act allows for Bureau of Indian Affairs certified tribal members to use eagles and eagle parts for religious ceremonies, as well as exceptions for scientific or educational purposes, falconry, and in cases of livestock depredation (16 U.S.C. § 668a). Any employee of the Department of the Interior (DOI) may enforce the provisions of the statute and may arrest individuals for violations (16 U.S.C. § 668b).

In the case of development projects, a permit may be required if the project activity is near an active or inactive eagle nest, roosting site, or foraging site. This is particularly true if the project is near breeding habitat (as opposed to wintering habitat or migratory stop-over sites). The act applies to all activities that may impact eagles, including projects without a federal nexus. If there is a possibility that the project could “non-purposefully take” eagles (unavoidable take associated with, but not the purpose of an activity) the USFWS may issue a programmatic take permit. In this case, the permit is subject to conditions or mitigation measures to minimize impacts. Post-construction monitoring and annual reports may also be required (50 CFR 22.26).

3.1.6 Magnuson-Stevens Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) provides the federal government with the authority to manage fisheries in the U.S. Exclusive Economic Zone (EEZ)

(from state waters which end 3 nautical miles offshore to a distance of 200 nautical miles). In addition, the Act mandates inter-agency cooperation in achieving protection, conservation, and enhancement of Essential Fish Habitat (EFH). The Act defines EFH as "Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. For the purpose of interpreting the definition of EFH: 'Waters' include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; 'substrate' includes sediment, hard bottom, structures underlying the waters, and associated biological communities; 'necessary' means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and “spawning, breeding, feeding, or growth to maturity” covers a species' full life cycle" (50 CFR 600.10). EFH designations serve to highlight the importance of habitat conservation for sustainable fisheries and sustaining valuable fish populations. EFH relates directly to the physical fish habitat and indirectly to factors that contribute to degradation of this habitat. Important features of EFH that deserve attention are adequate water quality, temperature, food source, water depth, and cover/vegetation.

3.1.7 Sustainable Fisheries Act of 1996

The Sustainable Fisheries Act (SFA) (Public Law 104-107) serves as an amendment to the MSFCMA to “authorize appropriations, to provide for sustainable fisheries, and for other purposes.” The SFA includes requirements for describing EFH in Fishery Management Plans (FMP) and also mandates the protection EFH. According to the SFA, “[o]ne of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.” This act also mandates the delineation of EFH for all managed species.

3.2 State Jurisdiction

3.2.1 California Environmental Quality Act (CEQA)

CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity which must receive some discretionary approval. Under CEQA, a variety of technical studies including biological, cultural, traffic, and air quality studies as well as research and professional knowledge are considered to determine whether the project may have an “adverse effect” on the environment. Lead agencies are charged with evaluating the best available data when determining what specifically should be considered an “adverse effect” to the environment.

3.2.2 Porter-Cologne Water Quality Act

The Porter-Cologne Act provides for statewide coordination of water quality regulations by establishing the California State Water Resources Control Board. The State Board is the statewide authority that oversees nine separate RWQCBs that collectively oversee water quality at regional and local levels. California RWQCBs issue CWA Section 401 Water Quality Certifications for

possible pollutant discharges into waters of the U.S. or state. On April 2, 2019 the California State Water Resources Control Board adopted new definitions and procedures for discharges of dredged or fill material to Waters of the State.

3.2.3 California Endangered Species Act (CESA)

The CESA includes provisions for the protection and management of species listed by the State of California as endangered, threatened, or designated as candidates for such listing (California Fish and Game Code (FGC) Sections 2050 through 2085). The CESA generally parallels the main provisions of the ESA and is administered by the CDFW, who maintains a list of state threatened and endangered species as well as candidate species. The CESA prohibits the “take” of any species listed as threatened or endangered unless authorized by the CDFW in the form of an Incidental Take Permit. Under FGC, “take” is defined as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

3.2.4 Other State Special Status Species and Communities

The CDFW maintains a list of species of special concern. These are broadly defined as species that are of concern to the CDFW because of population declines and restricted distributions, and/or they are associated with habitats that are declining in California. The criteria used to define special status species are described by the CDFW. Impacts to special status plants, animals, and sensitive natural communities (SNCs) may be considered significant under CEQA.

State Species of Special Concern include those plants and wildlife species that have not been formally listed, yet are proposed or may qualify as endangered or threatened. In addition, USFWS Birds of Conservation Concern, and CDFW special status invertebrates are considered special status species by CDFW.

The CDFW administers the Native Plant Protection Act (Sections 1900–1913 of the FGC). These sections allow the California Fish and Game Commission to designate endangered and rare plant species and to notify landowners of the presence of such species. Plant species on California Native Plant Society’s (CNPS) California Rare Plant Ranking (CRPR) Lists 1 and 2 are considered eligible for state listing as Endangered or Threatened pursuant to the California Fish and Game Code and CDFW has oversite of these special status plant species as a trustee agency. As part of the CEQA process, such species should be considered as they meet the definition of Threatened or Endangered under Sections 2062 and 2067 of the California Fish and Game Code. CRPR List 3 and 4 plants may warrant protection under CEQA Guidelines 15380 only in special circumstances. CDFW publishes and periodically updates lists of special status species which include, for the most part, the above categories. Additionally, there are 64 plant species designated as “rare” which is a special designation created before plants were rolled into CESA in the 1980s. The CESA and the Native Plant Protection Act (NPPA) required a project to have a “Scientific, Educational, or Management Permit” from CDFW for activities that would result in “take,” possession, import, or export of state-listed plant species including research, seed banking, reintroduction efforts, habitat restoration, and other activities relating to any plant designated SE (State endangered), ST (State threatened), SR (State rare), or SC (State candidate for listing).

3.2.5 Sensitive Natural Communities (SNCs)

CDFW provides oversight of habitats (i.e., plant communities) listed as Sensitive in the California Natural Diversity Database (CNDDB) and on the California SNCs List, based on global and state rarity rankings. The natural communities are broken down to alliance and association levels for vegetation types affiliated with ecological sections in California. The alliances on the California SNCs List coincide with A Manual of California Vegetation (Sawyer et al. 2009). CDFW considers alliances and associations with a state rank of S1 to S3 to be Sensitive. The application of ranking for determination of Sensitive Communities is summarized as follows in **Table 3.1** (NatureServe 2020):

Table 3.1 NatureServe Conservation Status Ranks

Name	Calculated Status Rank	Status Description
Score ≤ 1.5	G1, N1, S1	Critically Imperiled
1.5 ≤ Score ≤ 2.5	G2, N2, S2	Imperiled
2.5 ≤ Score ≤ 3.5	G3, N3, S3	Vulnerable
3.5 ≤ Score ≤ 4.5	G4, N4, S4	Apparently Secure
Score > 4.5	G5, N5, S5	Secure

3.2.6 California Fish and Game Code (FGC)

Lake or Streambed Alteration Agreement

Streams, lakes, and riparian vegetation that serve as habitat for fish and other wildlife species are subject to jurisdiction by the CDFW under Sections 1600-1616 of the FGC. Any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake; generally require a 1602 Lake and Streambed Alteration Agreement (LSAA). The term “stream,” which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is defined as, “on, or pertaining to, the banks of a stream;” therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself.” Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFW.

Birds of Prey and Native Nesting Birds

Sections 3503 and 3513 of the FGC prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or

destruction of any birds in the orders *Falconiformes* (hawks and eagles) or *Strigiformes* (owls) and their eggs or nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds. Non-native species, including the European Starling, Rock Dove, and House Sparrow, are not afforded protection under the MBTA or FGC.

Fully Protected Species

The CDFW enforces the FGC, which provides protection for “fully protected birds” (Section 3511), “fully protected mammals” (Section 4700), “fully protected reptiles and amphibians” (Section 5050), and “fully protected fish” (Section 5515). As fully protected species, the CDFW cannot authorize any project or action that would result in “take” of these species even with an incidental take permit

Migratory Bird Protection Act (MBPA)

The California Migratory Bird Protection Act (MBPA; FGC 5313 as amended) was introduced in the California State Assembly 2019 by Assembly Member Ash Kalra and co-sponsored by the National Audubon Society. The text of the Act specifies that it is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (16 USC 703-712) before January 1, 2017. This upholds the interpretation of the MBTA under Clinton’s EO 13166, where “take” was defined as both “unintentional as well as intentional”. Governor Gavin Newson signed the Act into law on September 27, 2019. The MBPA effectively closes the federal MBTA loophole on incidental take of migratory birds in California.

4. Methods

4.1 Definition of Project Study Boundary (PSB)

For the purposes of this BRR, the Project Study Boundary (PSB) includes the Project Area as defined in **Section 2.2** (**Appendix A, Figure 3 – Project Study Boundary**) and a circular buffer of 0.25 miles (radius). State special status wildlife species and SNCs were evaluated at the level of the PSB. This large buffer around the Project Area is designed to account for any auditory and visual disturbance to wildlife or other resources, as well as other potential impacts such as increased sedimentation/turbidity from construction and increased dust. The Napa River at the western edge of the PSB (over 1,250 ft and well away from the nearest Project activities) is excluded from this analysis.

State special status plant species were evaluated at the level of the Project Area.

4.2 Preliminary Investigation

4.2.1 Database Searches (CNDDB, CNPS, IPaC, and NMFS)

A database search of the CNDDB (CDFW 2020a), USFWS Information for Planning and Conservation (IPaC) (USFWS 2020), NOAA Fisheries West Coast Region California Species List Tools (NOAA Fisheries 2020a), and the CNPS Inventory of Rare and Endangered Vascular Plants (CNPS 2020a) was conducted by GHD on April 7, 2020. The search encompassed nine U.S. Geological Survey (USGS) quadrangles (quads) centered on the Project Area quad (Napa) and the

surrounding eight quads (Cordelia, Cuttings Wharf, Sears Point, Sonoma, Rutherford, Yountville, Mount George, and Capell Valley). In addition, citizen science databases such as eBird, BatAmp, and iNaturalist were reviewed for additional local wildlife information (eBird 2020, iNaturalist 2020, BatAmp 2020).

The CNDDB database and CNPS Inventory were queried for all CRPR List species including CRPR 3 and 4 plant species, for informational purposes. Plant species on CNPS California Rare Plant Ranking (CRPR) Lists 1A, 1B and 2A and 2B are considered eligible for state listing as endangered or threatened pursuant to the California Fish and Game Code and CDFW has oversite of these special status plant species as a trustee agency. As part of the CEQA process, such species should be considered as they meet the definition of threatened or endangered under Sections 2062 and 2067 of the California Fish and Game Code. There are occasions where CRPR List 3 or 4 species might be considered of special concern particularly for the type locality of a plant, for populations at the periphery of a species range, or in areas where the taxon is especially uncommon or has sustained heavy losses, or from populations exhibiting unusual morphology. For this Project, scoping for special status plant species included plant species on CNPS California Rare Plant Ranking (CRPR) Lists 1A, 1B, 2A, 2B, 3, and 4.

Based on these database results, habitat assessments made during the site visits, literature review, and professional expertise regarding the habitat and conditions surrounding the Project Area, scoping tables were compiled for plant (Appendix B of **Appendix D - Surveys for Special Status Plants and Tree Inventory**) and wildlife species likely to occur in the PSB (**Table 5.4;** and **Appendix B - CNDDB, CNPS, IPaC, and NMFS Database Search Results**). These tables and the species accounts below summarize special status plant and wildlife species that may be present in the Project Area and greater PSB, as well as special status plant communities. These tables also present information such as the likelihood of each species or community to occur in the Project Area and PSB. **Figure 4 in Appendix A** shows all special status species tracked by CNDDB that are known to occur within a 5 mile radius of the Project Area.

4.2.2 National Wetlands Inventory (NWI)

A search of the NWI was conducted on April 10, 2020 for the immediate Project vicinity.

4.3 Field Surveys

4.3.1 Special Status Plants

Three special status plant surveys in the Project Area were conducted by Jane Valerius, botanist and wetland specialist of Valerius Consulting, and Joslyn Curtis, GHD botanist, across the 2020 blooming period: on April 16, May 13, and June 16, 2020 (**Appendix D**; **Appendix E - April 16, 2020 Field Survey Report**).

4.3.2 Sensitive Natural Communities (SNCs)

Presence of SNCs was evaluated during the special status plant surveys conducted by Jane Valerius and Joslyn Curtis on April 16, May 13, and June 16, 2020 (**Appendix D**; **Appendix E**).

4.3.3 Wetland Delineation Methods

Literature Review

Prior to the delineation field survey, literature pertinent to identifying potential wetlands and other waters of the United States in the Project Area was reviewed, including the USGS 7.5 minute topographic quadrangle map for the area, the detailed aerial photograph base map prepared for the Project Area, the soil survey report, the county hydric soils list, and the previous 2004 and 2014 delineation reports.

Field Survey and Map Preparation

A formal delineation was conducted by Jane Valerius and Joslyn Curtis on May 13, 2020. The delineation study boundary was limited to within the Project Area and did not include the historic Tulacay Creek drainage on the west and Old Tulacay Creek drainage to the north (**Appendix A, Figure 7 - Delineation of Wetlands and Other Waters of the U.S**.). Areas in which the topography or vegetation suggested that wetlands could exist were sampled using the routine on-site determination method procedures described in the 1987 Corps of Engineers *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). The State of California 2016 Wetland Plant List (USACE 2016) along with the updated 2018 list available on the USACE website (USACE 2018) were used to determine the wetland status for the plant species for the sample data points.

A soil pit was excavated at a total of two (2) delineation sample points (**Appendix A, Figure 7**) to a depth of 8 to 12 inches. The two data points had wetland plants but no wetland soils or wetland hydrology indicators were present so no further sample points were taken. Data point were mapped using a Trimble GPS.

4.3.4 Wildlife Survey and Wildlife Habitat Evaluation Methods

A biological reconnaissance survey was conducted by GHD Botanist, Joslyn Curtis, on April 16, 2020 (**Appendix E**).

4.4 Agency Coordination

Pre-project coordination with resource agencies has not occurred to date.

5. Results

5.1 Summary of General Biological Resources

The Project is located on a relatively undeveloped portion of the Napa Valley College campus primarily composed of an asphalt parking area, a former sanitary landfill, as well as native and non-native grassland. Additionally, riparian vegetation occurs along two channels of Old Tulucay Creek immediately bordering the site. The riparian area is wide, varying in width from approximately 30 to 270 ft, with dense tree growth. It is a fully intact riparian area with minor trash and urban

disturbance despite some evidence of use by homeless persons. Although the Project is in an urbanized area, it could support special status plant and wildlife species. See **Appendix G - April 16, 2020 Field Survey Photographs.**

5.2 Special Status Plants

The full list of potentially occurring special status plant species compiled from the searched databases are analyzed for occurrence in the Project Area in Appendix B of **Appendix D.** Of the 82 special status plants listed, four were determined to have a low to moderate potential to occur on-site due to the presence of potentially suitable habitat: bent-flowered fiddleneck (*Amsinckia lunaris*), congested-headed tarplant (*Hemizonia congesta ssp. congesta*), Mt. Diablo cottonweed (*Micropus amphibolus*), and two-fork clover (*Trifolium amoenum*).

During the April 16th special status plant survey, some fiddleneck plants were seen in the Project Area that had two spots on their flowers (one characteristic of *Amsinckia lunaris*), but did not have a bent corolla tube or distinctively bilateral corolla (the other two defining characteristics). Due to the highly variable nature of corolla coloration and lack of other two defining features, it was determined that the species seen was either *Amsinckia intermedia* or perhaps a hybrid of two species. About 20 plants made up the population. Numerous photographs and two voucher specimens were taken of this population and are deposited in the UC Davis Herbarium. No special status plants were documented within Project Area during the April 16, May 13, and June 16, 2020 special status plant surveys.

5.2.1 Species Descriptions

The four California State special status plant species determined to have a low to moderate potential of occurring within the Project Area are described in detail here.

Bent-flowered fiddleneck (Amsinckia lunaris), CRPR 1B.2, Moderate Potential

Bent-flowered fiddleneck has a CRPR rank of 1B.2, which means it is rare or endangered in California and elsewhere, and the ".2" modifier indicates it is fairly endangered in California (CNPS 2020a). It is a bristly, hairy, annual forb in the borage family (Boraginaceae). It is erect and slender with a coiled, spike-like cyme of orange flowers that uncurls as it flowers and typically maintains a coil tip while fruiting. It is unique from other fiddlenecks in that it has a bilateral corolla with a bent tube and two dark spots on the limb (Jepson eFlora 2020). It grows in coastal bluff scrub, cismontane woodland, and valley and foothill grassland (CNPS 2020a). It prefers gravelly slopes, openings in woodland, and is often found on serpentine substrates. It is well dispersed across the Inner and High North Coast Ranges, Central Coast, and San Francisco Bay Area, with some occurrences in the Sacramento Valley and some unconfirmed collections in the San Joaquin Valley (Jepson eFlora 2020). It blooms from March to June (CNPS 2020a).

Suitable conditions exist within the PSB for this species. Some fiddleneck plants were seen in the Project Area, during the April 13, 2020 special status plant survey, though as stated above, it was determined that the species seen was either *Amsinckia intermedia* or perhaps a hybrid of two species. Numerous photographs and two voucher specimens were taken of this population and are deposited in the UC Davis Herbarium. There is a CCH record of this species about 1.5 miles from

the PSB, though there are no CNDDB occurrences within 7.5 miles of the Project Area (CCH 2020, CDFW 2020a). Based on available habitat and documented presence of closely-related species, this species has a moderate potential to be present within the PSB.

Congested-headed tarplant (Hemizonia congesta ssp. congesta), CRPR 1B.2, Moderate Potential

Congested-headed hayfield tarplant has a CRPR rank of 1B.2, which means it is rare or endangered in California and elsewhere, and the ".2" modifier indicates it is fairly endangered in California (CNPS 2020a). It is an annual forb in the sunflower family (Asteraceae) and is the only species in its genus. It grows in grassy sites, marsh edges (Jepson eFlora 2020), valley and foothill grasslands, and sometimes roadsides. It blooms from April to November (CNPS 2020a).

Conditions within the PSB could be suitable for this subspecies. There is a CCH record of this subspecies within 5 miles of the Project Area, though there are no CNDDB occurrences within 7.5 miles of the Project Area (CDFW 2020a). Based on available habitat, this subspecies has a moderate potential to be present within the PSB.

Mt. Diablo cottonweed (Micropus amphibolus), CRPR 3.2, Low Potential

Mt. Diablo cottonweed has a CRPR rank of 3.2, which means it is a plant species about which more information is needed, and the ".2" modifier indicates it is fairly endangered in California (CNPS 2020a). It is a California endemic annual herb in the sunflower family (Asteraceae). It grows at 148 - 2707 ft (45 - 825 m) within rocky areas of broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland (CNPS 2020a). It blooms from March through May (CNPS 2020a).

While there is grassland habitat within the PSB, the primary distribution of this species seems to be in the coastal foothills or mountain edges of the San Francisco Bay floristic ecoregion. There are no recorded occurrences of this species within 7.5 miles of the Project Area (CCH 2020, CDFW 2020a). Based on available habitat and nearby records, this species has a low potential to be present within the PSB. This species was not observed during the 2020 special status plant surveys.

Two-fork clover (Trifolium amoenum), Federally Endangered, CRPR 1B.1, Low Potential

Two-fork clover is federally endangered and has a CRPR rank of 1B.1, which means it is rare, threatened or endangered in California and elsewhere, and the ".1" modifier indicates it is seriously endangered in California. It is a California endemic annual herb in the pea family (Fabaceae). It grows at 16 - 1362 ft (5 - 415 m) in coastal bluff scrub, valley and foothill grassland and sometimes serpentinite areas (CNPS 2020a). It blooms from April through June (CNPS 2020a), and is threatened by urbanization, non-native species, erosion, and limited populations with small numbers (USFWS 2012).

This species was last seen in Napa County in 1951, a few miles north of the City of Napa. Habitat within the PSB would be suitable for this species near the drainages or in the seasonally wet depressions on-site. This species was not detected during the 2004 rare plant survey (RVA 2004). There is a CNDDB occurrence within 0.5 miles of the Project Area (CDFW 2020a). Based on available habitat and nearby records, this species has a low potential to be present within the PSB.

5.2.2 Plant Critical Habitat

Critical habitat has not been designated for any plant species within the PSB.

5.3 Sensitive Natural Communities (SNCs)

The CNDDB listed four SNCs in the vicinity of the PSB as shown in **Table 5.2** (CDFW 2020a). These communities are from the 1986 Holland Classification System (Holland 1986). Current CEQA regulations require that impacts to SNCs identified in local or regional plans, policies, and regulations or by the CDFW or USFWS, are analyzed (ACEC 2020). CDFW currently classifies SNCs using the Manual of California Vegetation (CNPS 2020b), and posts updated SNCs list on Vegetation Classification and Mapping Program's website (CDFW 2019a).

Table 5.1. Potential for Sensitive Natural Communities to Occur in the Project Study Boundary

SNC Name	Status (Federal/ State/ State Rank)	General Habitat Description	Potential to Occur within PSB and Project Area
Northern Vernal Pool	N/N/S2.1	"A low, amphibious, herbaceous community dominated by annual herbs and grasses. Germination and growth begin with winter rains, often continuing even when inundated. Rising spring temperatures evaporate the pools, leaving concentric bands of vegetation that colorfully encircle the drying pool" (Holland 1986).	**Low Potential**. While the PSB contains some seasonally wet depressions, these would not be considered vernal pools. There is a CNDDB occurrence within 2.5 miles of the Project Area (CDFW 2020a).
Coastal Brackish Marsh	N/N/S2.1	"Dominated by perennial, emergent, herbaceous monocots to 2 m tall. Cover is often complete and dense. Similar to Salt Marshes (52100) and to Freshwater Marshes (52400) with some plants characteristic of each" (Holland 1986).	**Low Potential**. While the PSB contains alkaline pockets and some plant species indicative of this community, they are not substantial or cohesive enough to form a true Coastal Brackish Marsh Community. There is a CNDDB occurrence within 2.5 miles of the Project Area (CDFW 2020a).
Serpentine Bunchgrass	N/N/S2.2	An open grassland dominated by perennial bunchgrasses. Total cover typically is low, but is markedly dominated by native species (usually much more so than in Valley Needlegrass Grasslands (42110) or Non-native Grasslands (42200))" (Holland 1986).	**No Potential**. The PSB does not contain serpentine substrate. There are no CNDDB occurrences within 7.5 miles of the Project Area (CDFW 2020a).

SNC Name	Status (Federal/ State/ State Rank)	General Habitat Description	Potential to Occur within PSB and Project Area
Valley Needlegrass Grassland	N/N/S3.1	Valley & foothill grassland (CDFW 2020a).	**Low Potential.** Observed on-site but only in small numbers, not enough to constitute a separate grassland type.
Northern Coastal Salt Marsh	N/N/S3.2	"Highly productive, herbaceous and suffructescent, salt-tolerant hydrophytes forming moderate to dense cover and up to 1 m tall. Most species are active in summer, dormant in winter. Usually segregated horizontally with Spartina nearer the open water, Salicornia at mid-littoral elevations, and a richer mixture closer to high ground" (Holland 1986).	**Low Potential**. While the PSB contains alkaline areas, they are close to a quarter mile from the Project Area, along the Napa River. No areas resembling this community were noted in the Project Area during 2020 site visits. There is a CNDDB occurrence within 7.5 miles of the Project Area (CDFW 2020a).

SRank: State Rank from NatureServe's Heritage Methodology (NatureServe 2020) (ranking according to degree of imperilment in the state (California) - S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state; S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state; S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.

Threat Code extensions and their meanings: ".1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat); .2 – Moderately threatened in California (20-80% of occurrences threatened / moderate degree

and immediacy of threat); .3 – Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)" (CDFW 2020a).

5.3.1 Sensitive Natural Communities (SNCs)

Two SNCs not listed in the CNDDB's Holland classified communities were observed on-site during biological surveys in 2020. These are determined by the CDFW's Vegetation Classification and Mapping Program to be S3, and, therefore, considered SNCs. A complete list of all vegetation communities observed is included in **Table 5.3** below with the SNCs, S3 or lower communities, in bold.

Table 5.2. Vegetation Communities On-site

Alliance Name	State Rank	Acreage	Square Footage
Avena spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance	SNA	4.01	174,661.90
***Bromus carinatus - Elymus glaucus* Herbaceous Alliance**	**S3**	**1.30**	**56,735.60**
***Elymus cinereus - Elymus triticoides* (formerly *Leymus cinereus - Leymus triticoides*) Herbaceous Alliance**	**S3**	**0.03**	**1,266.25**
Quercus agrifolia Forest & Woodland Alliance	S4	0.14	6,080.53

SRank: State Rank from NatureServe's Heritage Methodology (ranking according to degree of imperilment in the state (California) - S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state; S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors; S5 = Secure—Common, widespread, and abundant in the state; SNR = State Not Ranked*;* SNA = Subnation rank not available (NatureServe 2020).

Bromus carinatus - Elymus glaucus Herbaceous Alliance (California brome - blue wildrye prairie), S3

The rule for this community is that *Elymus glaucus* has greater than 30% relative cover in the herbaceous layer (Buck-Diaz et al. 2012). The Manual of California Vegetation Online describes the community as, *"Bromus carinatus*, *Bromus maritimus*, *Elymus glaucus* and/or *Pteridium aquilinum* is dominant or co-dominant in the herbaceous layer with *Achillea millefolium, Agoseris grandiflora, Anagallis arvensis, Avena barbata, Bromus diandrus, Bromus hordeaceus, Corethrogyne filaginifolia, Daucus pusillus, Dichelostemma capitatum, Geranium dissectum, Ranunculus californicus, Rumex acetosella, Sisyrinchium bellum, Vulpia bromoides* and *Vulpia myuros*. Emergent shrubs may be present at low cover, including *Toxicodendron diversilobum*" (CNPS 2020b).

Areas with blue wildrye were documented covering approximately 1.3 acres of the Project Area (**Appendix D**). This is divided into two areas adjoining the North College Parking lot to the north and west. See **Figure 6** in **Appendix A.**

Based on its presence outside of its normal habitat as well as prior hydroseeding efforts, this was likely artificially introduced and would not be considered to qualify as a SNC.

Elymus cinereus - Elymus triticoides (formerly Leymus cinereus - Leymus triticoides) Herbaceous Alliance (Ashy ryegrass - creeping ryegrass turfs), S3

The rule for this community is that *Elymus triticoides* (formerly *Leymus triticoides)* has greater than 30% relative cover in the herbaceous layer (Buck-Diaz et al. 2012). The Manual of California Vegetation Online describes the community as, "*Leymus cinereus* and/or *Leymus triticoides* is dominant or co-dominant in the herbaceous layer with *Ambrosia psilostachya, Anemopsis californica, Aristida purpurea, Avena fatua, Bromus spp., Danthonia unispicata, Distichlis spicata, Elymus elymoides, Hordeum spp., Juncus arcticus, Lolium perenne, Poa secunda* or *Triglochin maritima*. Emergent trees and shrubs may be present at low cover" (CNPS 2020b).

Areas with creeping wild rye grass turfs were documented covering approximately 0.03 acres in the north central portion of the Project Area (**Appendix D**). See **Figure 6** in **Appendix A.**

Given the very small percentage of this grass type out of the overall area as well as the overall grassland, it would not be considered its own separate grassland community type.

5.4 NWI Desktop Analysis

A desktop analysis of the NWI (2020) for the immediate Project vicinity showed Estuarine and Marine Wetlands, Freshwater Emergent Wetland, and Riverine designated within the PSB (**Appendix A, Figure 5** and **Appendix C – National Wetlands Inventory Results**).

5.5 Wetland Delineation Results

No wetlands were identified for the proposed Project/delineation study area during the wetland delineation site investigation conducted on May 13, 2020 by Jane Valerius and Joslyn Curtis. Two sample data points were taken at two different locations where wetlands were identified as being dominant. However, at both locations there were no hydric soils indicators or presence of wetland hydrology, so the determination was that no wetlands were present.

5.6 Wildlife Survey and Wildlife Habitat Evaluation Results

Foraging and roosting presence of two special status bats in the PSB is possible. For a more detailed discussion on the potential for special status bats to occur at the site, see **Section 5.5.2 – Bats.**

The PSB may provide foraging and some requisite nesting habitat for numerous protected species of birds. Evidence of nesting by Wild Turkeys (native species protected under the California FGC) was observed on-site during surveys (S. McGaughey pers. comm. 2020). Eight special status bird species have a moderate to high potential of occurring in the PSB. For a more detailed description of sensitive bird species likely to occur in the PSB, see **Section 5.5.2 – Birds.**

Presence of Western Pond Turtle *(Emys marmorata)* in the PSB is possible. For a more detailed discussion on the potential for Western Pond Turtle to occur at the site, see **Section 5.5.2 – Reptiles.**

Presence of Red-bellied Newt *(Taricha rivularis)* in the PSB is possible. For a more detailed discussion on the potential for Red-bellied Newts to occur at the site, see **Section 5.5.2 – Amphibians.**

Spawning and presence of Steelhead (*Oncorhynchus mykiss irideus*) in the PSB is possible. For a more detailed discussion on the potential for Steelhead to occur at the site, see **Section 5.5.2 – Fish.**

Presence of Obscure Bumble Bees *(Bombus caliginosus)* in the PSB is possible. For a more detailed discussion on the potential for Obscure Bumble Bees to occur at the site, see **Section 5.5.2 – Insects.**

5.6.1 Special Status Wildlife

The results in **Table 5.4** are based on database searches, literature review, and information from the reconnaissance field visit, as no special status wildlife surveys have been conducted on site.

Table 5.3 Potential for Special Status Wildlife Species to Occur in the Project Study Boundary

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
Mammals						
Antrozous pallidus	Pallid Bat	N/N/SSC, WBWG-H	G5	S3	Chaparral | Coastal scrub | Desert wash | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Riparian woodland | Sonoran desert scrub | Upper montane coniferous forest | Valley & foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. (CDFW 2020a).	**High Potential.** This species will roost in rock outcrops, mines, caves, tree hollows, buildings, and bridges (Erickson et al. 2002). Numerous records within immediate Project vicinity, ~5 miles (CDFW 2020a). Closest known record is from 1999 in Napa, ~1 mile west of the Project Area (CDFW 2020a). Both the Project Area and greater PSB contain suitable foraging and roosting habitat (e.g., trees and buildings) for this species.
Lasiurus blossevillii	Western Red Bat	N/N/SSC, WBWG-H	G5	S3	Cismontane woodland | Lower montane coniferous forest | Riparian forest | Riparian woodland. Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging. (CDFW 2020a).	**Moderate Potential.** This species roosts in trees and can hibernate in duff (Erickson et al. 2002). Closest known record is from 2005 near Capell Valley, ~10 miles northeast of the Project Area (CDFW 2020a). Both the Project Area and greater PSB contain suitable foraging and roosting habitat for this species.
Taxidea taxus	American Badger	N/N/SSC	G5	S3	Alkali marsh | Alkali playa | Alpine | Alpine dwarf scrub | Bog & fen | Brackish marsh | Broadleaved upland forest | Chaparral | Chenopod scrub | Cismontane woodland |	**Low Potential.** Two historical (1911, and one from an unknown year prior to 1937) records within 9-quad search area, and immediate Project vicinity, ~5 miles (CDFW

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					Closed-cone coniferous forest | Coastal bluff scrub | Coastal dunes | Coastal prairie | Coastal scrub | Desert dunes | Desert wash | Freshwater marsh | Great Basin grassland | Great Basin scrub | Interior dunes | Ione formation | Joshua tree woodland | Limestone | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Mojavean desert scrub | Montane dwarf scrub | North coast coniferous forest | Oldgrowth | Pavement plain | Redwood | Riparian forest | Riparian scrub | Riparian woodland | Salt marsh | Sonoran desert scrub | Sonoran thorn woodland | Ultramafic | Upper montane coniferous forest | Upper Sonoran scrub | Valley & foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows. (CDFW 2020a).	2020a). Closest known record is from 1911 in Napa, ~1 mile away from Project Area (CDFW 2020a). Both the Project Area and greater PSB contain marginal foraging habitat for this species. However, this species is regionally rare.
Birds						
Ardea alba	Great Egret	N/N/N	G5	S4	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest |	**High Potential.** Numerous records within immediate Project vicinity, ~5 miles

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					Wetland. Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes. (CDFW 2020a).	(eBird 2020). Closest known record is from 2017 at Napa Valley College campus, within 0.25 miles of the Project Area (eBird 2020). The Project Area does not contain suitable nesting (e.g., large trees) or foraging (e.g., marsh) habitat for this species. However, the PSB contains requisite nesting and foraging habitat.
Ardea herodias	Great Blue Heron	N/N/N	G5	S4	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest | Wetland. Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows. (CDFW 2020a).	**High Potential.** Numerous records within immediate Project vicinity, ~5 miles (eBird 2020). Closest known record is from 2017 at Napa Valley College campus, within 0.25 miles of the Project Area (eBird 2020). The Project Area contains requisite foraging habitat for this species (within the grassland on-site and Tulucay Creek). The PSB contains requisite nesting and foraging habitat.
Buteo regalis	Ferruginous Hawk	N/N/WL,BCC	G4	S3S4	Great Basin grassland | Great Basin scrub | Pinon & juniper woodlands | Valley & foothill grassland. Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles. (CDFW 2020a).	**Low Potential.** Numerous overwintering records from 9-quad search area and immediate project area, ~5 miles (eBird 2020a). Closest known record is from 2019 in nearby John F. Kennedy Memorial Park, ~0.75 miles south of the Project Area (eBird 2020a). Both the Project Area and greater PSB

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
						only contain marginal foraging habitat.
Buteo swainsoni	Swainson's Hawk	N/ST/BCC	G5	S3	Great Basin grassland | Riparian forest | Riparian woodland | Valley & foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. (CDFW 2020a).	**Moderate Potential.** Numerous records within 9-quad search area and immediate Project vicinity, ~5 miles (CDFW 2020a, eBird 2020a). Closest known record is from 2015 at Napa Valley College campus, within 0.05 miles of the Project Area (eBird 2020). Both the Project Area and greater PSB contain requisite nesting (within trees on-site and along the riparian corridors of Tulucay Creek) and foraging habitat (within the grassland on-site).
Circus hudsonius	Northern Harrier	N/N/SSC	G5	S3	Coastal scrub | Great Basin grassland | Marsh & swamp | Riparian scrub | Valley & foothill grassland | Wetland. Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas. (CDFW 2020a).	**High Potential.** Numerous records within immediate Project vicinity, ~5 miles (eBird 2020). Closest known record is from 2019 at Napa Valley College campus, within 0.25 miles of the Project Area (eBird 2020). Both the Project Area and greater PSB contain requisite nesting and foraging habitat.
Elanus leucurus	White-tailed Kite	N/N/FP	G5	S3S4	Cismontane woodland | Marsh & swamp | Riparian woodland | Valley & foothill grassland | Wetland. Rolling foothills and valley margins with scattered oaks & river bottomlands or	**High Potential.** Numerous records within immediate Project vicinity, ~5 miles (CDFW 2020a, eBird 2020). Closest known record is from 2013 at Napa Valley College

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. (CDFW 2020a).	campus, within 0.10 miles of the Project Area (eBird 2020). Known nest site occupied as recently as 2018 within 0.6 miles of the Project Area (CDFW 2020a). Both the Project Area and greater PSB contain requisite nesting and foraging habitat.
Falco peregrinus anatum	American Peregrine Falcon	FD/SD/FP,BCC	G4T4	S3S4	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site. (CDFW 2020a).	**High Potential.** Numerous known records within immediate Project vicinity, ~5 miles (CDFW 2020a, eBird 2020). Closest known record is from 2016 along the Napa River within 0.3 miles of the Project Area (eBird 2020). The Project Area contains requisite foraging habitat. The PSB contains requisite nesting (e.g., buildings) and foraging habitat.
Haliaeetus leucocephalus	Bald Eagle	FD/SE/FP,BCC	G5	S3	Lower montane coniferous forest | Oldgrowth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter. (CDFW 2020a).	**Moderate Potential.** Numerous records within immediate Project vicinity, ~5 miles (eBird 2020). Closest known record is from 2015 along the Napa River within 0.3 miles of the Project Area (eBird 2020). The Project Area does not contain suitable habitat for this species. The PSB contains requisite foraging habitat.
Hydroprogne caspia	Caspian Tern	N/N/BCC	G5	S4	Nests on sandy or gravelly beaches and shell banks in small colonies inland and	**Low Potential.** Numerous records within immediate Project vicinity, ~5 miles

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					along the coast. Inland freshwater lakes and marshes; also, brackish or salt waters of estuaries and bays. (CDFW 2020a).	(eBird 2020). Closest known record is from 2015 along the Napa River within 0.3 miles of the Project Area (eBird 2020). Both the Project Area and greater PSB do not contain suitable habitat (e.g., beaches, marshes, estuaries, etc.) for this species.
Nycticorax nycticorax	Black-crowned Night-Heron	N/N/N	G5	S4	Marsh & swamp | Riparian forest | Riparian woodland | Wetland. Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots. (CDFW 2020a).	**Moderate Potential.** Numerous records within immediate Project vicinity, ~5 miles (eBird 2020). Closest known record is from 2015 along the Napa Valley, within 0.3 miles of the Project Area (eBird 2020). The Project Area does not contain suitable habitat for this species. The PSB contains requisite nesting and foraging habitat within the riparian corridor around Tulucay Creek.
Phalacrocorax auritus	Double-crested Cormorant	N/N/WL	G5	S4	Riparian forest | Riparian scrub | Riparian woodland. Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins. (CDFW 2020a).	**Low Potential.** Numerous known records within immediate Project vicinity, ~5 miles (eBird 2020). Closest known record is from 2015 along the Napa Valley, within 0.3 miles of the Project Area (eBird 2020). Both the Project Area and greater PSB do not contain suitable habitat (e.g., lake margins, etc.) for this species.

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
Sternula antillarum browni	California Least Tern	FE/SE/FP	G4T2T3Q	S2	Alkali playa | Wetland. Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas. (CDFW 2020a).	**Low Potential.** No CNDDB records within 9-quad search area (CDFW 2020a). Several records (not delineated to subspecies level) from immediate Project vicinity, ~5 miles (eBird 2020). Closest known record is from 2019 in nearby John F. Kennedy Memorial Park, ~0.75 miles south of the Project Area (eBird 2020a). The PSB contains requisite foraging habitat for this subspecies within the Napa River. Both the Project Area and greater PSB do not contain any suitable nesting habitat (e.g., playa or wetlands) for this subspecies.
Strix occidentalis caurina	Northern Spotted Owl	FT/ST/N	G3T3	S2S3	North coast coniferous forest | Oldgrowth | Redwood. Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy. (CDFW 2020a).	**No Potential.** No nesting, roosting, foraging habitat within 5+ miles of the Project Area. Closest positive observation is from 2008 near Alston Park, ~6.25 miles northwest of the Project Area (CDFW 2020a). Both the Project Area and greater PSB do not contain any suitable habitat for this subspecies.
Reptiles						
Emys marmorata	Western Pond Turtle	N/N/SSC	G3G4	S3	Aquatic | Artificial flowing waters | Klamath/North coast flowing waters | Klamath/North coast standing waters | Marsh & swamp | Sacramento/San	**High Potential.** Numerous records from immediate Project vicinity, ~5 miles (CDFW 2020a). Both the Project Area and greater PSB

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland. A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying. (CDFW 2020a).	contain requisite nesting habitat, given that the Project Area is within 0.25 miles of the Napa River and the species will travel up to 0.3 mi (0.5 km) away from water to access upland habitats for nesting (CDFW 2020a).
Thamnophis gigas	Giant Gartersnake	FT/ST/	G2	S2	Marsh & swamp | Riparian scrub | Wetland. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the gartersnakes in California. (CDFW 2020a).	**No Potential.** The Project Area and greater PSB are located outside this species' range, which is limited to the Central Valley.
Amphibians						
Ambystoma californiense	California Tiger Salamander	FT/ST/	G2G3	S2S3	Cismontane woodland | Meadow & seep | Riparian woodland | Valley & foothill grassland | Vernal pool | Wetland. Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or	**Low Potential.** Closest known record is from 1856 in Petaluma, ~19 miles west of the Project Area (CDFW 2020a). The PSB does not contain suitable habitat (e.g., vernal pools, etc.) for this species.

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					other seasonal water sources for breeding. (CDFW 2020a).	
Dicamptodon ensatus	California Giant Salamander	N/N/SSC	G3	S2S3	Aquatic | Meadow & seep | North coast coniferous forest | Riparian forest. Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes. (CDFW 2020a).	**Low Potential.** Several records within 9-quad search area (CDFW 2020a). Closest known record is from 1979 along Redwood Creek in Napa, ~6 miles northwest of the Project Area (CDFW 2020a). Both the Project Area and greater PSB do not contain suitable habitat (e.g., wet forest) for this species.
Rana boylii	Foothill Yellow-legged Frog	N/SCT/SSC	G3	S3	Aquatic | Chaparral | Cismontane woodland | Coastal scrub | Klamath/North coast flowing waters | Lower montane coniferous forest | Meadow & seep | Riparian forest | Riparian woodland | Sacramento/San Joaquin flowing waters. Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. (CDFW 2020a).	**Low Potential.** Numerous records within 9-quad search area (CDFW 2020a). Closest known record is from 1972 along Redwood Creek in Napa, ~7.5 miles northwest of the Project Area (CDFW 2020a). Both the Project Area and greater PSB do not contain suitable habitat (e.g., rocky streams) for this species.
Rana draytonii	California Red-legged Frog	FT/N/SSC	G2G3	S2S3	Aquatic | Artificial flowing waters | Artificial standing waters | Freshwater marsh | Marsh & swamp | Riparian	**Low Potential.** Numerous records within 9-quad search area (CDFW 2020a). Closest known record is from 2004

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					forest | Riparian scrub | Riparian woodland | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat. (CDFW 2020a).	near Sears Point, ~12 miles southwest of the Project Area (CDFW 2020a). Although the Project Area and greater PSB contain requisite habitat for this species, they are located farther than one mile (protocol survey dispersal distance) from a known source population (USFWS 2005).
Taricha rivularis	Red-bellied Newt	N/N/SSC	G4	S2	Broadleaved upland forest | North coast coniferous forest | Redwood | Riparian forest | Riparian woodland. Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate. (CDFW 2020a).	**Moderate Potential.** One record from 9-quad search area, from 1977 near Bouverie Wildflower Preserve, ~14 miles northwest of the Project Area (CDFW 2020a). The Project Area does not contain suitable habitat for this species. The PSB contains requisite habitat for this species within Tulucay Creek.
Fish						
Acipenser medirostris	Green Sturgeon	FT/N/SSC	G3	S1S2	Aquatic | Klamath/North coast flowing waters |	**Low Potential.** Known to occur in the San Francisco

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					Sacramento/San Joaquin flowing waters. These are the most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, & Trinity Rivers. Spawns at temps between 8-14 C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock. (CDFW 2020a).	Bay estuary, occasionally found in Napa River (SFEI 2015). No aquatic habitat within Project Area. Unlikely to enter Tulucay Creek and the PSB.
Eucyclogobius newberryi	Tidewater Goby	FE/N/SSC	G3	S3	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters | South coast flowing waters. Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels. (CDFW 2020a).	**No Potential.** Extirpated in San Francisco Bay (USFWS 2005). Nearest occupied location within recovery sub-unit (Point Reyes to Point San Pedro and San Francisco Bay) is Rodeo Lagoon, Marin County (USFWS 2005). No aquatic habitat within Project Area.
Oncorhynchus mykiss irideus pop. 11	Steelhead - Central Valley DPS	FT/N/N	G5T2Q	S2	Aquatic | Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries. (CDFW 2020a).	**No Potential.** The Project Area and greater PSB are located outside this species' range. It is known to occur in the San Francisco Bay estuary, but not known to spawn in the Napa River.
Oncorhynchus mykiss irideus pop. 8	Steelhead - Central	FT/N/N	G5T2T3Q	S2S3	Aquatic | Sacramento/San Joaquin flowing waters. DPS includes all naturally spawned	**Moderate Potential.** Known to spawn in the Napa River and its tributaries. Steelhead

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
	California Coast DPS				populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays. (CDFW 2020a).	recorded in tributaries to Tulucay Creek (Leidy et al. 2005), and Tulucay Creek is considered anadromous water (CDFW and NOAA 2020). No aquatic habitat within Project Area itself. However, species could occur seasonally (during spawning migration) within PSB in Tulucay Creek.
Oncorhynchus tshawytscha pop. 6	Chinook Salmon - Central Valley spring-run ESU	FT/ST/N	G5	S1	Aquatic | Sacramento/San Joaquin flowing waters. Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27 C are lethal to adults. Federal listing refers to populations spawning in Sacramento River and tributaries. (CDFW 2020a).	**Low Potential.** Known to occur in the San Francisco Bay estuary, but not known to spawn in the Napa River. No aquatic habitat within Project Area. Unlikely to enter Napa River, Tulucay Creek, and the PSB.
Oncorhynchus tshawytscha pop. 7	Chinook Salmon - Sacramento River winter-run ESU	FE/SE/N	G5	S1	Aquatic | Sacramento/San Joaquin flowing waters. Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning. (CDFW 2020a).	**No Potential.** The Project Area and greater PSB are located outside this species' range. It is known to occur in the San Francisco Bay estuary, but not known to spawn in the Napa River.
Invertebrates						
Branchinecta conservatio	Conservancy Fairy Shrimp	FE/N/N	G2	S2	Valley & foothill grassland | Vernal pool | Wetland. Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic	**No Potential.** No CNDDB records within the 9-quad search area (CDFW 2020a). The PSB does not contain any suitable habitat (e.g., vernal pools, Central Valley

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June. (CDFW 2020a).	grasslands, wetlands) for this species.
Bombus caliginosus	Obscure Bumble Bee	N/N/N	G4?	S1S2	Coastal areas from Santa Barabara county to north to Washington state. Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia. (CDFW 2020a).	**Moderate Potential.** Two historical (1964, 1978) records within 9-quad search area (CDFW 2020a). No recent records within Napa County (Bumble Bee Watch 2020). Closest known record is from 1978 at Mount Veeder, ~11.5 miles northwest of the Project Area (CDFW 2020a). The Project Area falls within the species current range (Hatfield et al. 2014). In addition, the Project Area and greater PSB are within the coastal fog belt and may include several of the species' food plants (would require botanical surveys to confirm).
Callophrys mossii bayensis	San Bruno Elfin Butterfly	FE/N/N	G4T1	S1	Valley & foothill grassland. Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is Sedum spathulifolium. (CDFW 2020a).	**No Potential.** No CNDDB records within the 9-quad search area (CDFW 2020a). The Project Area and PSB are located outside the species' current range, which is limited to three sites in San Mateo County (USFWS 2017).
Danaus plexippus pop. 1	Monarch - California overwintering population	N/N/N	G4T2T3	S2S3	Closed-cone coniferous forest. Winter roost sites extend along the coast from northern Mendocino to Baja California,	**Low Potential.** One historical (1986) record within 9-quad search area, on North Tubbs Island, ~12 miles southwest of

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area
					Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. (CDFW 2020a).	the Project Area (CDFW 2020a). The Project Area does not contain suitable habitat for this species. The PSB contains requisite roosting habitat for this species. However, there are no known roosting sites within the immediate Project vicinity, ~5 miles (Pelton et al. 2016).
Syncaris pacifica	California Freshwater Shrimp	FE/SE/N	G2	S2	Aquatic | Sacramento/San Joaquin flowing waters. Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water. (CDFW 2020a).	**Moderate Potential.** Two records from 9-quad search area (CDFW 2020a). Closest known record is from 1990 in Huichica Creek (a tributary of the Napa River), ~2.5 miles southwest of the Project Area (CDFW 2020a). Known to be present in Napa River at low numbers (USFWS 1998). The Project Area does not contain suitable habitat for this species. The PSB contains requisite aquatic habitat for this species in Tulucay Creek.

Abbreviations:

Federal Statuses, i.e., listing status under the federal Endangered Species Act (ESA):

FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate; P = Proposed for Federal Listing; FD = Federally Delisted.

State Statuses, i.e., listing status under the California state Endangered Species Act (CESA):

SE = State Endangered; SD = State Delisted; ST = State Threatened; SR = State Rare.

Other Statuses:

BCC (U.S. Fish and Wildlife Service Birds of Conservation Concern): "The goal of the Birds of Conservation Concern 2008 report is to accurately identify the migratory and non-migratory bird species (beyond those already designated as Federally Threatened or Endangered) that represent our highest conservation priorities and draw attention to species in need of conservation action" (CDFW 2019b);

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description	Potential to Occur within PSB and Project Area

FP (CDFW Fully Protected Animal): “This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.” (CDFW 2019b);

SSC (CDFW Species of Special Concern): “It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as ‘Species of Special Concern’ because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as ‘Species of Special Concern’ is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability” (CDFW 2019b);

WL (CDFW Watch List): “The CDFW maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status” (CDFW 2019b);

WBWG_H (Western Bat Working Group High Priority): “those species considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment” (Bat Conservation International 1998).

Potential to Occur:

No Potential: Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Low Potential: Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential: Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

High Potential: All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Present: Detected or documented onsite.

5.6.2 Species Descriptions

The California State special status wildlife species determined to have a moderate to high potential of occurring within the PSB are described in detail here. Species descriptions are divided by taxonomic grouping: bats, birds, reptiles, amphibians, fish, and insects.

Bats

Pallid Bat (Antrozous pallidus), CDFW SSC, Western Bat Working Group High Priority, High Potential

The Pallid Bat is found throughout most of the western U.S., from sea level up to elevations of 6,700 ft (2042 m). In California, the species is found throughout the state with the exception of the high Sierras. Pallid Bats are commonly associated with habitats such as grassland, scrub, woodland, mixed conifer, and redwood forest (Erickson et al. 2002). They utilize day and night roosts in a variety of habitat types including bridges, mines, barns, rock piles, rocky outcroppings, dead tree snags, live old-growth tree basal hollows, and buildings (Baker et al. 2008). In general, this species roosts in places that protect them from temperature extremes. During the day, the species uses these sites to go into a shallow state of inactivity, or torpor. Optimal day roost temperatures are around 86 degrees Fahrenheit (in terms of maintaining low metabolic rates) (Trune and Slobodchikof 1976). Day roosts may include up to 200 individuals (in some cases, roosts may include other bat species) (Hermanson and O'Shea 1983).

Foraging habitats include agricultural areas, riparian woodland, open pine forests, oak savannah, and talus slopes (Williams et al. 2006). Pallid Bats forage close to the ground surface and glean prey from the ground or off exposed vegetation. They rely primarily on passive hearing to locate prey moving on the ground (Fuzessery et al. 1993). Preferred prey items include moths, Jerusalem crickets, beetles, grasshoppers, and scorpions (Hermanson and O'Shea 1983, Erickson et al. 2002).

The species breeds in the fall and winter (October through as late as February in coastal locations). Females store the sperm over the winter and ovulation occurs the following spring. Maternity colonies are typically formed in April and may consist of up to 100 individuals (Erickson 2002). Females typically give birth to twin pups in May of June (Hermanson and O'Shea 1983). The species hibernates during the winter, but may arouse to forage and drink water (Erickson et al. 2002). As a colonial roosting species, Pallid Bats are very sensitive to roost site disturbance. This is particularly true in the case of maternity colonies.

Ground foraging bats, as opposed to the aerial “hawking” species, are typically light averse. While hawking species are drawn to lights due to the increased insects, slower, less agile, ground foragers are found to avoid these areas; perhaps because they are more vulnerable to terrestrial predators that could see them in the light (Rowse et al. 2016).

This species will roost in rock outcrops, mines, caves, tree hollows, buildings, and bridges (Erickson et al. 2002). There are numerous records within the immediate Project vicinity, approximately 5 miles (CDFW 2020a). The closest known record is from 1999 in Napa, approximately 1 mile west of the Project Area (CDFW 2020a). Both the Project Area and greater PSB contain suitable foraging

and roosting habitat for this species. Based on available habitat, this species has a high potential to be present, roost, and forage within the Project Area and greater PSB.

Western Red Bat (Lasiurus blossevillii), CDFW SSC, Western Bat Working Group High Priority, Moderate Potential

Western Red Bats are primarily found at low elevations in the Central Valley or along the coast of California, with most occurrences west of the Sierras. The species engages in seasonal movements from breeding areas (primarily in the valley) to wintering areas (along the coast) (Pierson et al. 2004). Western Red Bats are closely associated with extensive stands of mature cottonwood and sycamore riparian forest (roosting and foraging habitat). The species roosts singly (except in the case of family groups) in the tree canopy in leaves (Erickson et al. 2002, Harris et al. 2008). However, in areas where riparian forest has been lost to human development, this species will also roost in orchards (Pierson et al. 2004). Roosts are commonly located along a habitat edge (e.g. adjacent to a creek or field). The breeding season for this species spans the fall through summer. Breeding occurs in the fall, with delayed fertilization until the following spring. Pups are born in the summer and litters may include up to five young (Harris et al 2008). Western Red Bats feed on a variety of insect prey including cicadas, crickets, and beetles. They catch prey in flight by capturing insects in their wing or tail membranes (Harris et al. 2008).

This species roosts in trees and can hibernate in duff (Erickson et al. 2002). The closest known record is from 2005 near Capell Valley, approximately 10 miles northeast of the Project Area (CDFW 2020a). Both the Project Area and greater PSB contain suitable foraging and roosting habitat for this species. Based on available habitat, this species has a moderate potential to be present, roost, and forage within the Project Area and greater PSB.

Birds

Great Egret (Ardea alba), CDFW Special Animals List (S4), High Potential

Great Egrets are year-round residents in western California, with breeders concentrated in the Klamath and Warner basin in Siskiyou and Modoc Counties, along the coast in Humboldt County, the San Francisco Bay area, Monterey County, the Salton Sea, and the Central Valley. This species favors wetlands, estuaries, lakes, rivers, ponds, streams, marshes, and tidal flats. Great Egrets utilize a variety of substrates for nesting including trees, woody vegetation, or artificial nest platforms. Nests platforms are typically constructed of locally available sticks and vegetation. Great Egrets nest communally or in mixed-species colonies. They are opportunistic foragers, wading in shallow water to feed on fish, amphibians, and invertebrates. They also hunt on shore for reptiles, birds, and small mammals. (Mccrimmon Jr. et al. 2011).

There are numerous records within the immediate Project vicinity, approximately 5 miles (eBird 2020). The closest known record is from 2017 at Napa Valley College campus, within 0.25 miles of the Project Area (eBird 2020). The Project Area does not contain suitable nesting (e.g., large trees) or foraging (e.g., marsh) habitat for this species. The PSB contains requisite nesting (in large trees within the riparian corridor surrounding Tulucay Creek) and foraging habitat (within Tulucay Creek). Based on records and available habitat, this species has a high potential to be present and forage within the PSB, but is unlikely to be present in the Project Area.

Great Blue Heron (Ardea herodias), CDFW Special Animals List (S4), High Potential

Great Blue Herons are year-round residents in the majority of coastal and central California. Notable exceptions include the Sierras and the very southeastern desert regions of the state. Great Blue Herons are extremely adaptable to a variety of habitats including most saltwater and freshwater bodies, agricultural land, wetlands, as well as commercial and residential areas such as golf courses. Nesting habitat includes trees, bushes, or artificial structures. Nests platforms are typically constructed out of locally available sticks and lined with material such as grass, moss, and reeds. Great Blue Herons are colonial nesters in mixed-species colonies. They are opportunistic foragers, wading in shallow water to feed on fish, amphibians, and invertebrates. They also hunt on shore for reptiles, birds, and small mammals. Additionally, they are known to scavenge carrion. (Vennesland and Butler 2011).

There are numerous records within the immediate Project vicinity, approximately 5 miles (eBird 2020). The closest known record is from 2017 at Napa Valley College campus, within 0.25 miles of the Project Area (eBird 2020). The Project Area contains requisite foraging habitat for this species (within the grasslands on-site). The PSB contains requisite nesting (in large trees within the riparian corridor surrounding Tulucay Creek) and foraging habitat (within Tulucay Creek). Based on records and available habitat, the species has a high potential to be present, nest, and forage within the PSB. Presence within the Project Area would likely be limited to foraging (temporary and of short duration).

Swainson's Hawk (Buteo swainsoni), State Threatened, CDFW SSC, Moderate Potential

Swainson's Hawks breed across interior portions of North America. Within California, they breed primarily in the Sacramento and San Joaquin valleys, in Mono and Inyo counties, and sometimes elsewhere. The vast majority of the population migrates from these breeding areas to wintering grounds in South America. On their breeding grounds, they are closely tied to their foraging habitats: open stands of grass-dominated vegetation, sparse shrublands, open woodlands, or agricultural lands. They typically build nests in trees within or near these areas. During the breeding season, they primarily feed on rodents, rabbits, and reptiles. In contrast, Swainson's Hawks are almost exclusively insectivorous during the winter season. (Bechard et al. 2010).

There are numerous records within the 9-quad search area and the immediate Project vicinity, approximately 5 miles (CDFW 2020a, eBird 2020a). The closest known record is from 2015 at Napa Valley College campus, within 0.05 miles of the Project Area (eBird 2020). Both the Project Area and greater PSB contain requisite nesting (in trees on-site and within the riparian corridor surrounding Tulucay Creek) and foraging habitat (within grasslands on-site). Based on records and available habitat, this species has a high potential to be present, nest, and forage within the Project Area and greater PSB.

Northern Harrier (Circus hudsonius), CDFW SSC, High Potential

Northern Harriers are a widely distributed raptor species, with year-round residents on the California coast, northeastern portion of the state, and the Central Valley. They are seasonal breeders throughout most of the rest of the state. Northern Harriers are associated with open habitat such as meadows, grazing land, marshes, tundra, prairies, riparian woodlands, and shrub-steppe. Many of these habitats are declining due to land conversion, wetland conversion, and monotypic farming. As

a result, Northern Harriers have been designated as a CDFW Species of Special Concern in California, with further research necessary to determine the actual state-wide status of the species. In terms of nesting habitat, Northern Harriers prefer to nest on the ground in vegetated uplands or wetlands. Nests consist of a large grass-lined cup surrounded by tall and dense vegetation such as reeds, willows, or blackberry bushes. Northern Harriers are polygynous, with one male frequently supporting/providing food for multiple nesting females. Prey items include rodents, birds, reptiles, and amphibians. (Smith et al. 2011).

There are numerous records within the immediate Project vicinity, approximately 5 miles (eBird 2020). The closest known record is from 2019 at Napa Valley College campus, within 0.25 miles of the Project Area (eBird 2020). Both the Project Area and greater PSB contain requisite nesting and foraging habitat within grasslands on-site. Based on records and available habitat, this species has a high potential to be present, nest, and forage within the Project Area and greater PSB.

American Peregrine Falcon (Falco peregrinus anatum), CDFW Fully Protected Species, High Potential

The Peregrine Falcon is one of the world's most widely distributed raptor species, occurring in urban areas, wetlands, deserts, maritime islands, mountains, tundra, and the tropics. The American Peregrine Falcon is one of three subspecies occurring in North America. Peregrine Falcons received significant attention during the middle of the 20th century due to precipitous population declines. These population crashes have been attributed to the lethal and sub-lethal effects of the organochlorine pesticide DDT (Dichlorodiphenyltrichloroethane). After DDT was banned in 1972, the Peregrine Falcon started to rebound nationwide.

In western North America, resident populations of peregrines are found along the coast of California and the majority of the interior of the state, excluding the Central Valley and arid regions in the southeast (White et al. 2002). In California, peregrines generally prefer open landscapes for foraging and cliffs or buildings for breeding. Nests consist of a scrape in sand, gravel, or dirt on a cliff ledge, artificial nest boxes, or abandoned raptor or corvid nests. Occasionally they will also use coniferous forest tree tops (Wrege and Cade 1977, White et al. 2002). Peregrine Falcons feed on a variety of avian species including passerines, waterfowl, and shorebirds. They have also been known to take bats, amphibians, fish, and mammals (Sherrod 1978). Prey are taken in flight, off the surface of water, or on land (Sherrod 1978). The Peregrine Falcon is the fastest member of the animal kingdom with diving ("stooping") speeds recorded at speeds of 238 miles per hour (Franklin 1999).

There are numerous records within the immediate Project vicinity, approximately 5 miles (CDFW 2020a, eBird 2020). The closest known record is from 2016 along the Napa River within 0.3 miles of the Project Area (eBird 2020). The Project Area contains requisite foraging habitat. The PSB contains requisite nesting (nearby buildings) and foraging habitat. Based on records and available habitat, this subspecies has a high potential to be present, nest, and forage within the PSB. Presence within the Project Area would likely be limited to foraging (temporary and of short duration).

White-tailed Kite (Elanus leucurus), CDFW Fully Protected Species, High Potential

White-tailed Kites are year-round residents in most of California west of the Sierras including the majority of the coastal foothills, Central Valley, and some arid regions such as Kern and Inyo Counties. White-tailed Kites prefer open landscapes at low elevations including marshes, grasslands, oak-woodlands, savannahs, and agricultural land. Nests are typically constructed on habitat edges on the top or upper third of a tree or bush. Nests consist of small sticks, grass, hay, and leaves placed in a variety of tree or shrub species including coastal redwoods *(Sequoia sempervirens)* and Sitka spruce *(Picea sitchensis).* White-tailed Kites feed almost exclusively on small mammals captured via hover hunting. (Dunk 1995).

There are numerous records within the immediate Project vicinity, approximately 5 miles (CDFW 2020a, eBird 2020). The closest known record is from 2013 at Napa Valley College campus, within 0.10 miles of the Project Area (eBird 2020). There is a known nest site occupied as recently as 2018 within 0.6 miles of the Project Area (CDFW 2020a). Both the Project Area and greater PSB contain requisite nesting and foraging habitat. Based on records and available habitat, this species has a high potential to be present, nest, and forage within the Project Area and greater PSB.

Bald Eagle (Haliaeetus leucocephalus), State Endangered, CDFW Fully Protected Species, Moderate Potential

As the national bird, the Bald Eagle is perhaps one of the most well-known raptors in the U.S. It is also one of the well-studied species on the continent. The Bald Eagle is the second largest bird of prey in North America with a wingspan surpassed only by that of the California Condor (Palmer et al. 1988). Bald Eagles are found throughout North America, with year-round residents along both coasts and near large bodies of water such as rivers, lakes, and reservoirs. Seasonal breeding populations occur throughout most of Canada and Alaska, with these populations wintering through the U.S. and Central America (Buehler 2000). In California, Bald Eagle breeding is restricted primarily to the northern portion of the state, with a few breeding populations along the coast south of San Luis Obispo and on the Channel Islands (Buehler 2000, NatureServe 2020).

Bald Eagles nest in large trees, on cliffs, or on the ground in treeless regions adjacent to lakes, rivers, estuaries, and dams (Buehler 2000). Platform nests are constructed out of large sticks and lined with grass, moss, down feathers, and other soft vegetation (Buehler 2000). Bald Eagles are opportunistic feeders, taking fish, waterfowl, mammals, and even carrion during the winter (Buehler 2000).

Bald Eagles received substantial attention during the middle of the 20th century due to precipitous population declines. These population crashes have been attributed to the sub-lethal effects of the organochlorine pesticide DDT (Weimeyer et al. 1993). Human persecution is also thought to have historically contributed to population declines through trapping, poisoning, and egg-collecting (Buehler 2000).

There are numerous records within the immediate Project vicinity, approximately 5 miles (eBird 2020). The closest known record is from 2015 along the Napa River within 0.3 miles of the Project Area (eBird 2020). The Project Area does not contain suitable habitat for this species. The PSB contains requisite foraging habitat. Based on records and available habitat, this species has a moderate potential to be present, nest, and forage within the PSB.

Black-crowned Night-Heron (Nycticorax nycticorax), CDFW Special Animals List (S4), Moderate Potential

Black-crowned Night-Herons are year-round residents in much of California, with notable exceptions in the Sierras, Central Valley, and the arid southeast portion of the state. These herons can be found in a wide variety of habitats adjacent to water bodies including urban, wetland, partially forested, and agricultural landscapes. Black-crowned Night-Herons are colonial nesters and nest with mixed species, building platform stick nests in trees, reeds, cattails, bushes, or on the ground on nearshore islands. As opportunistic feeders, Black-crowned Night-Herons eat fish, insects, mammals, birds, carrion, clams, crayfish, turtles, and many other food items. (Hothem et al. 2010).

There are numerous records within the immediate Project vicinity, approximately 5 miles (eBird 2020). The closest known record is from 2015 along the Napa Valley, within 0.3 miles of the Project Area (eBird 2020). The Project Area does not contain suitable habitat for this species. The PSB contains requisite nesting (in trees within the riparian corridor surrounding Tulucay Creek) and foraging habitat (within Tulucay Creek). Based on records and available habitat, this species has a moderate potential to be present, nest, and forage within the PSB, but is unlikely to be present in the Project Area.

Reptiles

Western Pond Turtle (Emys marmorata), CDFW SSC, Moderate Potential

Based on molecular analysis, Spinks et al. (2014) proposed recognizing all pond turtles north of San Francisco Bay as *Emys marmorata*; many available literature sources refer to the species as *Actinemys marmorata*. Pond turtles occur in a variety of permanent and semi-permanent freshwater aquatic habitats including lakes, rivers, ponds, creeks, and marshes. Pond turtles are known to be present in the general vicinity and may occur along the river bank not far from the project area. Breeding can occur on loose soils on south or west facing slopes so a few pond turtles may venture away from the river into the project area. The species is frequently observed basking on exposed banks, logs, and rocks. Winter activity is possible but limited to unusually warm, sunny days; normally pond turtles are dormant during winter months on the north coast; dormancy typically involved burrowing into loose substrate above the high water mark (Thompson et al. 2016).

There are numerous records from the immediate Project vicinity, approximately 5 miles (CDFW 2020a). Both the Project Area and greater PSB contain requisite foraging (within Tulucay Creek) and nesting habitat (upland grassland areas on-site), given that the Project Area is within 0.25 miles of the Napa River and the species will travel up to 0.3 mi (0.5 km) away from water to access upland habitats for nesting (CDFW 2020a). Based on records and available habitat, this species has a high potential to be present, nest, and forage within the Project Area and greater PSB.

Amphibians

Red-bellied Newt (Taricha rivularis), CDFW SSC, Moderate Potential

The Red-bellied Newt is one of four medium-sized newt species within the *Taricha* genus, endemic to California. Their range is limited to northern coastal portions of the state in Humboldt, Lake, Mendocino, and Sonoma counties (AmphibiaWeb 2020, Nafis 2020). They typically occur in streams and rivers in coastal woodlands and redwood forests (Nafis 2020).

They are generally most active at night although they can be found during the day throughout the breeding season and rainy weather (Nafis 2020). Adults migrate to breeding grounds seasonally in February to March as high winter water levels recede, with males arriving several weeks before females (AmphibiaWeb 2020, Nafis 2020). Breeding occurs March to May in rocky flowing streams; the species avoids ponded and stagnant water (AmphibiaWeb 2020). Eggs are laid in a flattened mass, typically consisting of 10 eggs, beneath rocks or on submerged roots (Nafis 2020). Larvae remain in the stream until metamorphosing in the late summer or early fall. After metamorphosis, juveniles exit their aquatic habitats and live primarily underground until becoming sexually mature (AmphibiaWeb 2020, Nafis 2020). Adults are terrestrial except during their aquatic breeding period. Aboveground activity occurs from October to February (AmphibiaWeb 2020). Individuals reach sexual maturity at 4-6 years of age, and can live to 20-30 years in age (Nafis 2020). They are generalist carnivores (AmphibiaWeb 2020). Common Gartersnakes *(Thamnophis sirtalis)* are a common predator, being highly resistant to their toxins (Nafis 2020).

Unfortunately, this species has not been the subject of extensive recent research, so little is known about their conservation status. Nonetheless, their populations are likely negatively influenced by development and land conversion, stream degradation, and road mortality (AmphibiaWeb 2020).

There is one record from 9-quad search area, from 1977 near Bouverie Wildflower Preserve, approximately 14 miles northwest of the Project Area (CDFW 2020a). The Project Area does not contain suitable habitat for this species. The PSB contains requisite habitat for this species within Tulucay Creek. Based on available habitat, this species has a moderate potential to be present within the PSB, but is unlikely to be present in the Project Area.

Fish

Steelhead - Central California Coast DPS (Oncorhynchus mykiss irideus, pop. 8), Federally Threatened, High Potential

The Central California Coast (CCC) Steelhead was listed as federally threatened effective February 6, 2006 (71 FR 834). The CCC Steelhead DPS includes all naturally spawned Steelhead originating below natural and manmade impassable barriers from the Russian River in Sonoma County south to and including Aptos Creek in Santa Cruz County. All drainages of San Francisco and San Pablo Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers are included in the CCC Steelhead DPS. Steelhead from two artificial propagation programs are also included in the CC DPS including Don Clausen Fish Hatchery Program and Kingfisher Flat Hatchery Program (NOAA 2014). Critical habitat for the CCC Steelhead DPS was designated effective January 2, 2006 and includes the Napa River (70 FR 52488). The NMFS categorizes the CCC DPS into five diversity strata including the Interior, North Coastal, Coastal San Francisco Bay, Interior San Francisco Bay, and Santa Cruz Mountains. The PSB is within the Coastal San Francisco Bay diversity strata.

Steelhead spend their adult lives in marine environments, returning to freshwater at the age of four or five to spawn, usually in their stream of origin. CCC Steelhead runs occur during the winter, typically between November and February. Spawning occurs from February to April (Caltrout 2020). The species spawns in rivers that are well oxygenated and have gravel bottoms. Unlike salmon, Steelhead do not necessarily die after spawning. During spawning, Steelhead deposit eggs in redds

constructed in gravel. Eggs hatch after three to 14 weeks in late winter through spring. The hatchlings, or alevins, emerge from the gravel after an additional two to five weeks. During the egg and alevin stages, survival depends in part on the presence of clean, well-oxygenated gravel. Excessive siltation contributes to mortality at these stages (Barnhart 1991, Stillwater Sciences 2006). Juvenile Steelhead use a variety of in-stream habitats depending on age and size. Smaller fish inhabit shallow, slow moving margins of streams or other open water. Larger juveniles move to deeper water with more cover and vegetation. Juveniles remain in freshwater for one or two years before returning to saltwater, with emigration typically occurring from March through June. A second year of growth is thought to contribute to a much higher probability of survival in the open ocean (Stillwater Sciences 2006).

Currently the CCC Steelhead DPS has been significantly reduced due to a variety of factors. Many of the populations in the Coastal San Francisco Bay and Interior San Francisco Bay diversity strata are likely at high risk of extinction due to the loss of the majority of the historical spawning habitat behind impassible barriers, and the heavily urbanized nature of most of these watersheds downstream of barriers. In the North Coastal, Interior, and Santa Cruz Mountain strata, most watersheds still appear to support some steelhead production, but there is great uncertainty about population abundance of almost all independent populations (NMFS 2011).

This species is known to spawn in the Napa River and its tributaries. Steelhead have been recorded in tributaries to Tulucay Creek (Leidy et al. 2005), and Tulucay Creek is considered anadromous water (CDFW and NOAA 2020). There is no aquatic habitat within the Project Area. However, the species could occur seasonally (during spawning migration) within PSB in Tulucay Creek. Therefore, this species has a moderate potential to be present in the PSB, but would not be present in the Project Area.

Insects

Obscure Bumble Bee (Bombus caliginosus), CDFW Special Animals List (G4? S1S2), Moderate Potential

The Obscure Bumble Bee is primarily black with yellow on the head, forward half of the thorax, and on the fourth tergite (dorsal abdominal segment) (Project Noah 2020). Individuals can live approximately one year (Hatfield et al. 2014). They occur in coastal habitat within the fog-belt from British Columbia to southern California (Koch et al. 2012, Hatfield et al. 2014). Preferred plants for foraging include the following genera: *Baccharis, Cirsium, Lupinus, Lotus, Grindelia, Phacelia* (Koch et al. 2012). Their populations have experienced severe declines rangewide. These declines are poorly understood, largely because they overlap with *Bombus vosnesenskii*, a common bee that is difficult to distinguish from *B. caliginosus* in the field (Xerces Society 2020).

There are two historical (1964, 1978) records within 9-quad search area (CDFW 2020a). The closest known record is from 1978 at Mount Veeder, ~11.5 miles northwest of the Project Area (CDFW 2020a). The Project Area falls within the species current range (Hatfield et al. 2014). In addition, the Project Area and greater PSB are within the coastal fog belt and include several of the species' food plants (**Appendix F - April 16, 2020 On-site Species Lists, Table 11.2**). Based on historical records, the location of the Project, and the possible presence of host plants in the area, this species has a moderate potential of occurring within the Project Area and greater PSB. No

impacts to Obscure Bumble Bees are expected as a result of Project construction (e.g., no significant impacts to nectar resources, nesting, or foraging habitat will occur). Therefore, the Project would have no impact on this species.

5.6.3 Critical Habitat

Critical habitat has not been designated for any wildlife species within the PSB.

5.7 Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the 1996 Sustainable Fisheries Act (Public Law 104-297), mandates inter-agency cooperation in achieving protection, conservation, and enhancement of Essential Fish Habitat (EFH). The Act defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." EFH designations serve to highlight the importance of habitat conservation for sustainable fisheries and sustaining valuable fish populations. EFH relates directly to the physical fish habitat and indirectly to factors that contribute to degradation of this habitat. Important features of EFH that deserve attention are adequate water quality, temperature, food source, water depth, and cover/vegetation.

EFH is designated for species managed in Fisheries Management Plans (FMP) under the MSA. EFH applies to species within the PSB for the proposed Project. Under the MSA, the Napa River and its tributaries, including Tulucay Creek, are designated as EFH within the Pacific Coast Salmon FMP.

Specifically within the Pacific Coast Salmon FMP, the Napa River and its tributaries includes EFH for all fresh-water salmon (Chinook, Coho, and Pink Salmon). The Pacific Coast Salmon FMP (as amended) was created to manage commercial and recreational salmon fisheries along the west coast of the U.S. In addition, the plan designates Habitat Areas of Particular Concern (HAPC) including complex channels and floodplains, thermal refugia, spawning habitat, estuaries, and marine and estuarine submerged aquatic vegetation (NOAA Fisheries 2020b). None of these HAPCs are present in Tulucay Creek and the PSB.

6. Summary of Potential Impacts and Avoidance and Minimization Measures

6.1 Proposed Avoidance and Minimization Measures

6.1.1 Special Status Plants

As no special status plant species were observed within the Project Area across the three appropriately timed special status plant surveys conducted during the 2020 blooming season, no impacts to special status plants are expected as a result of project construction. Therefore, no avoidance and minimization measures are considered necessary.

6.1.2 Special Status Bats

Habitat for bats (tree cavities, loose bark, riparian forest, etc.) may be present in the Project Area (based on reconnaissance level surveys). Trees and vegetation on the Project site likely provide habitat to a variety of bat species. Construction of the Project may adversely impact special status bat species through the removal or modification of trees and/or vegetation and due to ground disturbance.

If construction occurs during the bat maternity season (generally May 1st through August 30th), a qualified bat biologist shall conduct habitat surveys for special status bats. Survey methodology should include visual examination of suitable habitat areas for signs of bat use and may optionally utilize ultrasonic detectors to determine if special status bat species utilize the vicinity. Surveys shall be conducted within seven days prior to construction in any areas where potential maternity roosts may be disturbed/removed. Surveys shall be conducted by a qualified biologist. Surveys shall include a visual inspection of the impact area and any large trees/snags with cavities or loose bark. If the presence of a maternity roost is confirmed, roost removal will be prohibited during maternity season and no activity generating significant noise shall occur within 300 ft of the roost. If no bat utilization or roosts are found, then no further study or action is required. If bats are found to utilize the Project Area, or presence is assumed, a bat specialist should be engaged to advise the best method to prevent impact.

Project-related lighting shall be minimized if any work occurs at night, either contained within structures or limited by appropriate reflectors or shrouds and focused on areas needed for safety, security or other essential requirements.

6.1.3 Nesting Birds

Ground disturbance and vegetation clearing and tree removal shall be conducted, if possible, during the fall and/or winter months and outside of the avian nesting season (Feb 1 – Sept 1) to avoid any direct effects to special status and protected birds. If ground disturbance cannot be confined to work outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the Project Area, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. The ornithologist shall conduct at minimum a one day pre-construction survey within the 7-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the breeding season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before project work is reinitiated.

If active nests are detected within the construction footprint or up to 500 ft from construction activities, the ornithologist shall flag a buffer around each nest (assuming property access). Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within 500 ft of the construction area, buffers will be implemented as needed (buffer size dependent on species). In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW and, if applicable, with USFWS. Buffer sizes will take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the

construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds. An absolute minimum buffer size of 30 ft (9.1 m) is recommended as a starting point of discussion for common species, with larger buffers expected for special status species and raptors.

If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

6.1.4 Special Status Reptiles and Amphibians

Pre-construction surveys for Western Pond Turtles and Red-bellied Newt shall be performed within 48 hours prior to initiation of construction activities (including initial ground disturbing activities).

In the event that a Western Pond Turtle or Red-bellied Newt is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where observed and the turtle or newt shall be moved to a safe location in suitable habitat outside of the construction zone.

6.1.5 Special Status Fish

As no in-water work is currently being proposed, no seasonal restrictions are considered necessary. Best management practices (BMPs) to reduce the potential for sediment discharge into waterbodies and limit dust will be implemented to minimize impacts to special status fish and aquatic resources.

6.1.6 Environmental Awareness Training

Prior to construction, all workers on the crew shall be trained by a qualified biologist as to the sensitivity of the special-status species potentially occurring within the Project Area. The training shall include a brief review of special-status species with the potential to occur onsite, including Pallid and Western Red Bats, nesting birds, Western Pond Turtle, Red-bellied Newt, and Obscure Bumble Bee. The training shall provide an overview of their habitat requirements, legal status, and protection requirements. The training shall also provide a brief overview of biological resource mitigation measures, environmental permits and proposed project plans (i.e., the SWPPP, BMPs, and any other required plans). Personnel shall sign an attendance form that will remain on file with the Napa Valley Community College District for verification of training.

7. Conclusion

Based on surveys, suitable habitat, and nearby occurrence records, four special status plants have a low to moderate potential to occur within the Project Area. Given absence of these species across the three 2020 special status plant surveys, no impacts to special status plants are expected as a result of project construction. Therefore, no avoidance and minimization measures are considered necessary.

The areas with blue wildrye and creeping wild rye grass are functionally the same as the non-native grassland that is dominant within the Project Area and do not qualify as SNCs. Therefore, no impacts to SNCs are expected as a result of project construction, and no avoidance and minimization measures are considered necessary.

Two special status bats, eight special status bird species, one special status reptile (Western Pond Turtle), one special status amphibian (Red-bellied Newt), and one special status insect (Obscure Bumble Bee) have a moderate to high potential to occur within or directly adjacent to the Project Area. With implementation of special status bat and reptile/amphibian surveys (see **Avoidance and Minimization Measures 6.1.2** and **6.1.4**), and pre-construction nesting bird surveys (see **Avoidance and Minimization Measures 6.1.3**), as well as measures to protect special status fish and aquatic resources (see **Avoidance and Minimization Measures 6.1.5**) and Environmental Awareness Training (see **Avoidance and Minimization Measures 6.1.6**), any potential Project-related impacts to sensitive wildlife species will be reduced to a less than significant level. There will be no significant impacts to Obscure Bumble Bee nectar resources, nesting, or foraging habitat. Therefore, no impacts to Obscure Bumble Bees are expected as a result of construction.

Through the avoidance and minimization measures presented in **Section 6.1**, it is believed that potential adverse impacts to sensitive biological resources can be avoided. More specific measures may be identified in subsequent environmental review and permit applications.

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9. Personal Communications

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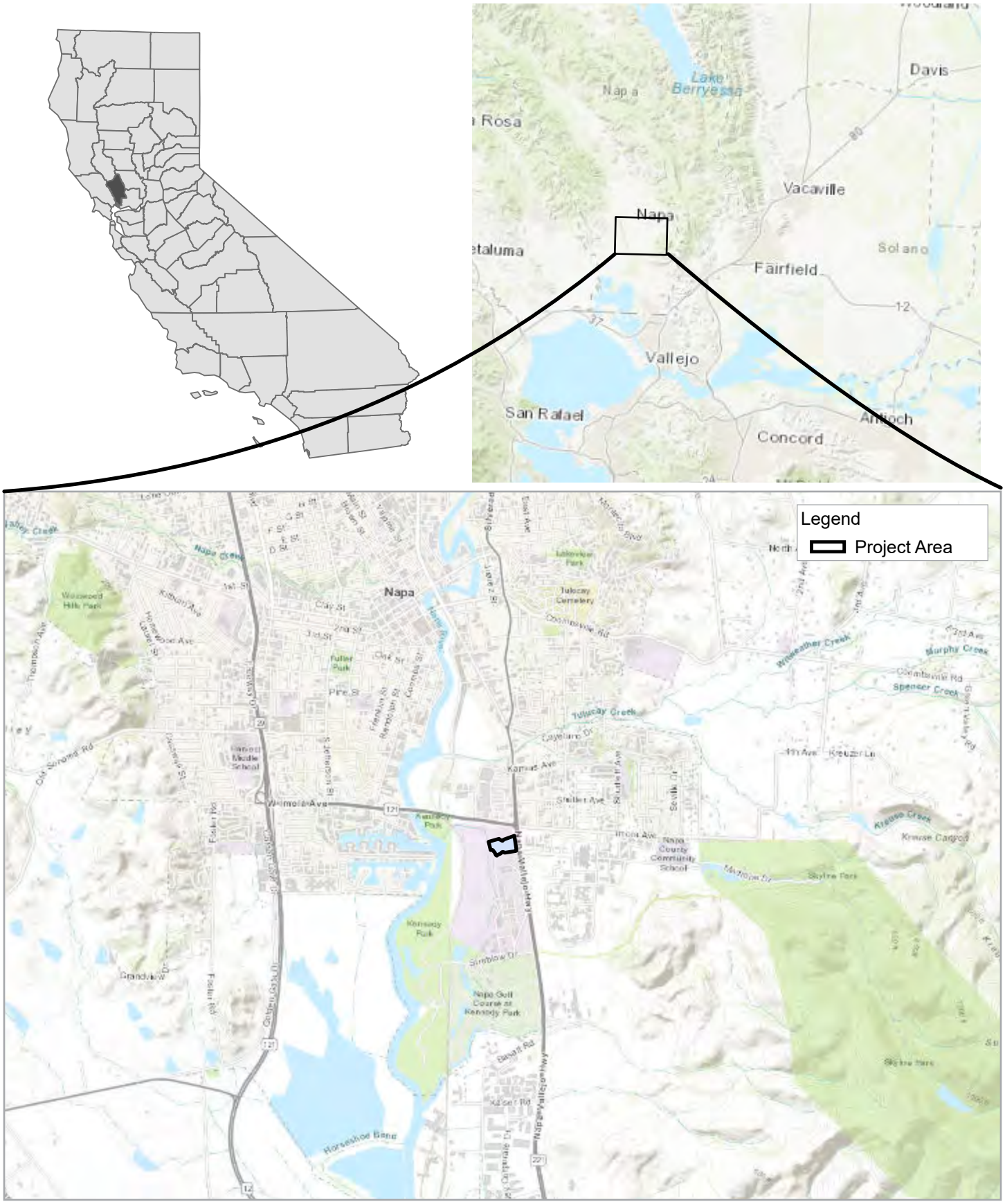
11. Appendices

Appendix A - Figures



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N

Napa Valley College
Napa Valley Student Housing

Project No. **11211361**
Revision No. **-**
Date **April 2020**

Vicinity Map

FIGURE 1

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Print date: 21 Apr 2020 - 06:08

Data source: World_Topo_Map: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community. Created by: emorata

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Miles

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
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N

Napa Valley College
Napa Valley Student Housing

Project No. **11211361**
Revision No. **-**
Date **April 2020**

Project Area

FIGURE 2

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Print date: 21 Apr 2020 - 06:11

Data source: CNDDB, February 10th, 2020; World Imagery (Clarity): Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.
Created by: emorata

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Map Projection: Lambert Conformal Conic
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Napa Valley College
Napa Valley Student Housing

Project No. **11211361**
Revision No. **-**
Date **April 2020**

Project Study Boundary

FIGURE 3

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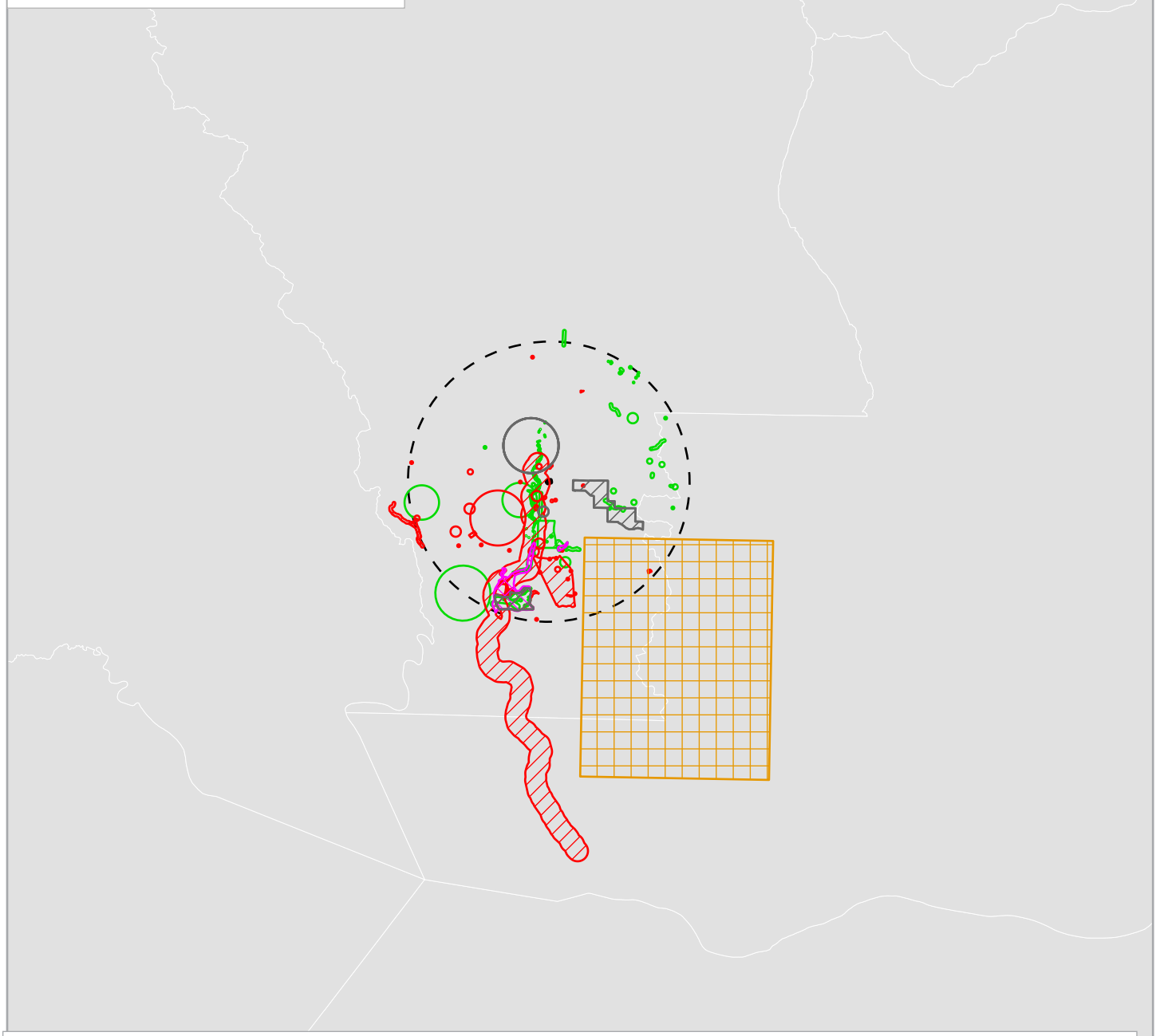
Print date: 21 Apr 2020 - 06:13

Data source: CNDDB, February 10th, 2020; World Imagery (Clarity): Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.
Created by: emorata

Data Disclaimer
Data within the CNDDB and Spotted Owl Database require biological expertise for proper analysis, interpretation, and application. It is the user's responsibility to ensure that the data obtained from CDFW are used correctly.



Legend

- Stream / River
- County Boundaries
- Project Area
- 5 Mile Buffer

CNDDB

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

Paper Size ANSI A

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Miles

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California III FIPS 0403 Feet

N

Napa Valley College
Napa Valley Student Housing

CNDDB Occurrences
5 mile radius

Project No. **11211361**
Revision No. **-**
Date **April 2020**

FIGURE 4

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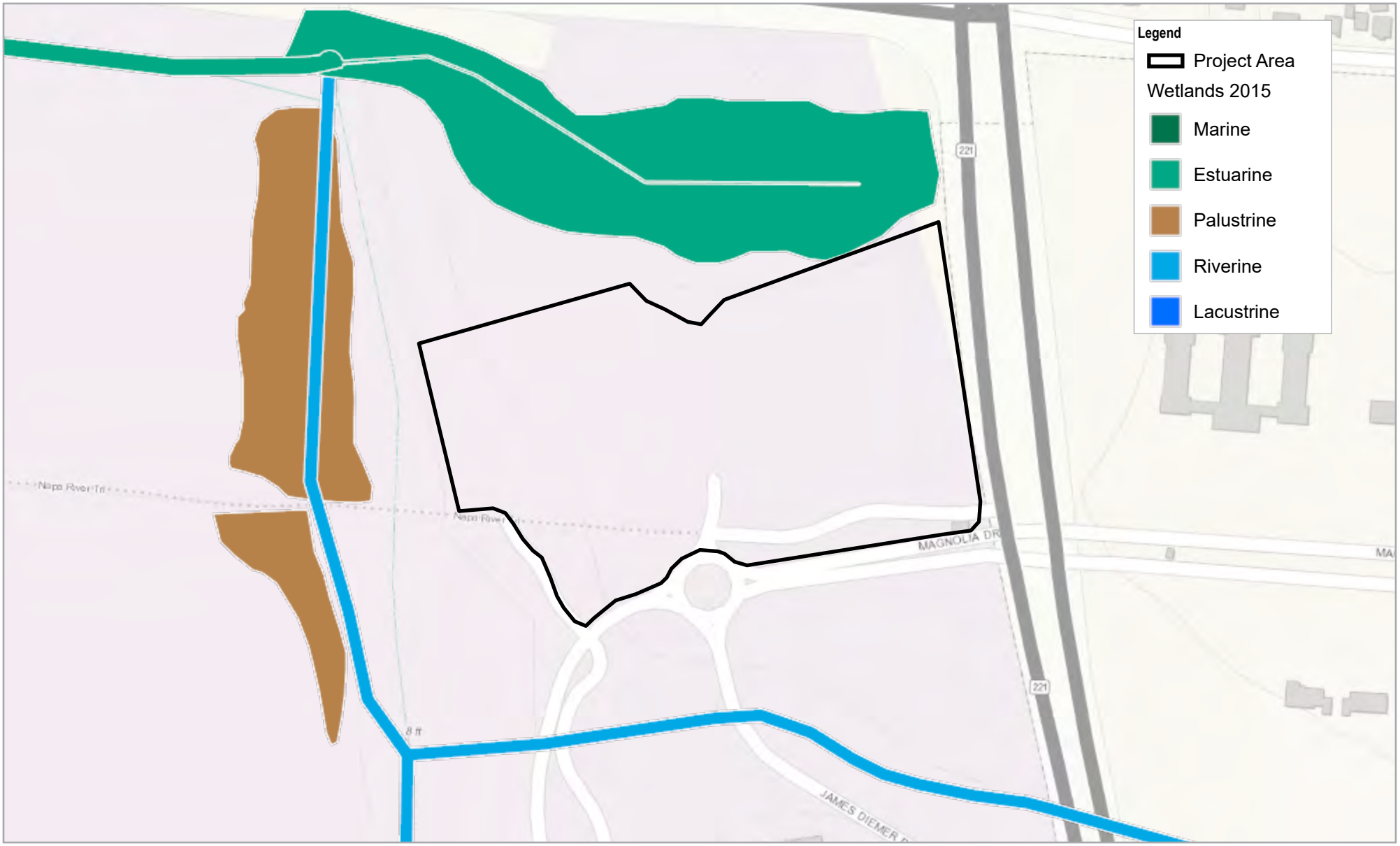
Data source: CNDDB, February 10th, 2020; . Created by: emorata



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Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California III FIPS 0403 Feet

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GHD

Napa Valley College
Napa Valley Student Housing

Project No. **11211361**
Revision No. **-**
Date **April 2020**

National Wetland Inventory

FIGURE 5

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Data source: USA Wetlands 2015 (Mature Support): Source: USFWS
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Paper Size ANSI A

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Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California III FIPS 0403 Feet

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Napa Valley College
Napa Valley Student Housing

Project No. 11211361
Revision No. -
Date Jun 8, 2020

Vegetation Communities

FIGURE 6

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Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

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Map Projection: Lambert Conformal Conic
Horizontal Datum: NAD 1983 2011
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Napa Valley College
Napa Valley Student Housing

Delineation of Wetlands and Other Waters of the U.S

Project No. **11211361**
Revision No. **-**
Date **June 2020**

FIGURE 7

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Print date: 18 Jun 2020 - 11:19

Data source: World Imagery (Clarity): Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by: zporteous

Appendix B - CNDDB, CNPS, IPaC, and NMFS Database Search Results

Appendix B, Table 11.1. Napa Valley College Student Housing Project - 9-Quad Database Search of CDFW CNDDB, CNPS Rare Plant Inventory, USFWS IPaC, and NMFS Database inventory searches of 9 USGS 7.5 Minute Quadrangles centered on Project Area quad (Napa) on 04.07.2020. Quads included Cordelia, Cuttings Wharf, Sears Point, Sonoma, Rutherford, Yountville, Mount George, and Capell Valley.

Scientific Name	Common Name	Status (Federal/State/Other Status or CRPR)	Global Rank	State Rank	General Habitat Description
Mammals					
Antrozous pallidus	Pallid Bat	N/N/SSC, WBWG-H	G5	S3	Chaparral | Coastal scrub | Desert wash | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Riparian woodland | Sonoran desert scrub | Upper montane coniferous forest | Valley & foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. (CDFW 2020a).
Lasiurus blossevillii	Western Red Bat	N/N/SSC, WBWG-H	G5	S3	Cismontane woodland | Lower montane coniferous forest | Riparian forest | Riparian woodland. Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging. (CDFW 2020a).

Taxidea taxus	American Badger	N/N/SSC	G5	S3	Alkali marsh | Alkali playa | Alpine | Alpine dwarf scrub | Bog & fen | Brackish marsh | Broadleaved upland forest | Chaparral | Chenopod scrub | Cismontane woodland | Closed-cone coniferous forest | Coastal bluff scrub | Coastal dunes | Coastal prairie | Coastal scrub | Desert dunes | Desert wash | Freshwater marsh | Great Basin grassland | Great Basin scrub | Interior dunes | Ione formation | Joshua tree woodland | Limestone | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Mojavean desert scrub | Montane dwarf scrub | North coast coniferous forest | Oldgrowth | Pavement plain | Redwood | Riparian forest | Riparian scrub | Riparian woodland | Salt marsh | Sonoran desert scrub | Sonoran thorn woodland | Ultramafic | Upper montane coniferous forest | Upper Sonoran scrub | Valley & foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated groundPreys on burrowing rodents. Digs burrows. (CDFW 2020a).
Birds					
Ardea alba	Great Egret	N/N/N	G5	S4	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest | Wetland. Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes. (CDFW 2020a).
Ardea herodias	Great Blue Heron	N/N/N	G5	S4	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest | Wetland. Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows. (CDFW 2020a).
Buteo regalis	Ferruginous Hawk	N/N/WL,BCC	G4	S3S4	Great Basin grassland | Great Basin scrub | Pinon & juniper woodlands | Valley & foothill grassland. Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles. (CDFW 2020a).

Buteo swainsoni	Swainson's Hawk	N/ST/BCC	G5	S3	Great Basin grassland | Riparian forest | Riparian woodland | Valley & foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. (CDFW 2020a).
Circus hudsonius	Northern Harrier	N/N/SSC	G5	S3	Coastal scrub | Great Basin grassland | Marsh & swamp | Riparian scrub | Valley & foothill grassland | Wetland. Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas. (CDFW 2020a).
Elanus leucurus	White-tailed Kite	N/N/FP	G5	S3S4	Cismontane woodland | Marsh & swamp | Riparian woodland | Valley & foothill grassland | Wetland. Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. (CDFW 2020a).
Falco peregrinus anatum	American Peregrine Falcon	FD/SD/FP,BCC	G4T4	S3S4	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site. (CDFW 2020a).
Haliaeetus leucocephalus	Bald Eagle	FD/SE/FP,BCC	G5	S3	Lower montane coniferous forest | Oldgrowth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter. (CDFW 2020a).
Hydroprogne caspia	Caspian Tern	N/N/BCC	G5	S4	Nests on sandy or gravelly beaches and shell banks in small colonies inland and along the coast. Inland freshwater lakes and marshes; also, brackish or salt waters of estuaries and bays. (CDFW 2020a).
Nycticorax nycticorax	Black-crowned Night Heron	N/N/N	G5	S4	Marsh & swamp | Riparian forest | Riparian woodland | Wetland. Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots. (CDFW 2020a).

Phalacrocorax auritus	Double-crested Cormorant	N/N/WL	G5	S4	Riparian forest | Riparian scrub | Riparian woodland. Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins. (CDFW 2020a).
Sternula antillarum browni	California Least Tern	FE/SE/FP	G4T2T3Q	S2	Alkali playa | Wetland. Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas. (CDFW 2020a).
Strix occidentalis caurina	Northern Spotted Owl	FT/ST/N	G3T3	S2S3	North coast coniferous forest | Oldgrowth | Redwood. Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy. (CDFW 2020a).
Reptiles					
Emys marmorata	Western Pond Turtle	N/N/SSC	G3G4	S3	Aquatic | Artificial flowing waters | Klamath/North coast flowing waters | Klamath/North coast standing waters | Marsh & swamp | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland. A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying. (CDFW 2020a).
Thamnophis gigas	Giant Gartersnake	FT/ST/	G2	S2	Marsh & swamp | Riparian scrub | Wetland. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the gartersnakes in California. (CDFW 2020a).
Amphibians					
Ambystoma californiense	California Tiger Salamander	FT/ST/	G2G3	S2S3	Cismontane woodland | Meadow & seep | Riparian woodland | Valley & foothill grassland | Vernal pool | Wetland. Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding. (CDFW 2020a).

Dicamptodon ensatus	California Giant Salamander	N/N/SSC	G3	S2S3	Aquatic | Meadow & seep | North coast coniferous forest | Riparian forest. Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes. (CDFW 2020a).
Rana boylii	Foothill Yellow-legged Frog	N/SCT/SSC	G3	S3	Aquatic | Chaparral | Cismontane woodland | Coastal scrub | Klamath/North coast flowing waters | Lower montane coniferous forest | Meadow & seep | Riparian forest | Riparian woodland | Sacramento/San Joaquin flowing waters. Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. (CDFW 2020a).
Rana draytonii	California Red-legged Frog	FT/N/SSC	G2G3	S2S3	Aquatic | Artificial flowing waters | Artificial standing waters | Freshwater marsh | Marsh & swamp | Riparian forest | Riparian scrub | Riparian woodland | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat. (CDFW 2020a).
Taricha rivularis	Red-bellied Newt	N/N/SSC	G4	S2	Broadleaved upland forest | North coast coniferous forest | Redwood | Riparian forest | Riparian woodland. Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate. (CDFW 2020a).
Fish					

Acipenser medirostris	Green Sturgeon	FT/N/SSC	G3	S1S2	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters. These are the most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, & Trinity Rivers. Spawns at temps between 8-14 C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock. (CDFW 2020a).
Eucyclogobius newberryi	Tidewater Goby	FE/N/SSC	G3	S3	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters | South coast flowing waters. Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels. (CDFW 2020a).
Oncorhynchus mykiss irideus pop. 11	Steelhead - Central Valley DPS	FT/N/N	G5T2Q	S2	Aquatic | Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries. (CDFW 2020a).
Oncorhynchus mykiss irideus pop. 8	Steelhead - Central California Coast DPS	FT/N/N	G5T2T3Q	S2S3	Aquatic | Sacramento/San Joaquin flowing waters. DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays. (CDFW 2020a).
Oncorhynchus tshawytscha pop. 6	Chinook Salmon - Central Valley spring-run ESU	FT/ST/N	G5	S1	Aquatic | Sacramento/San Joaquin flowing waters. Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27 C are lethal to adults. Federal listing refers to populations spawning in Sacramento River and tributaries. (CDFW 2020a).
Oncorhynchus tshawytscha pop. 7	Chinook Salmon - Sacramento River winter-run ESU	FE/SE/N	G5	S1	Aquatic | Sacramento/San Joaquin flowing waters. Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning. (CDFW 2020a).
Invertebrates					
Branchinecta conservatio	Conservancy Fairy Shrimp	FE/N/N	G2	S2	Valley & foothill grassland | Vernal pool | Wetland. Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June. (CDFW 2020a).

Bombus caliginosus	Obscure Bumble Bee	N/N/N	G4?	S1S2	Coastal areas from Santa Barabara county to north to Washington state. Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia. (CDFW 2020a).
Callophrys mossii bayensis	San Bruno Elfin Butterfly	FE/N/N	G4T1	S1	Valley & foothill grassland. Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is Sedum spathulifolium. (CDFW 2020a).
Danaus plexippus pop. 1	Monarch - California overwintering population	N/N/N	G4T2T3	S2S3	Closed-cone coniferous forest. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. (CDFW 2020a).
Syncaris pacifica	California Freshwater Shrimp	FE/SE/N	G2	S2	Aquatic | Sacramento/San Joaquin flowing waters. Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water. (CDFW 2020a).
Dicots					
Amorpha californica var. napensis	Napa false indigo	N/N/1B.2	G4T2	S2	Broadleaved upland forest | Chaparral | Cismontane woodland. Broadleafed upland forest, chaparral, cismontane woodland. Openings in forest or woodland or in chaparral. 30-735 m (CNDDB 2020). Broadleafed upland forest (openings), Chaparral, Cismontane woodland. (Elevation 120-2000 m.) Bloom period: Apr-Jul (CNPS 2020).
Amsinckia lunaris	bent-flowered fiddleneck	N/N/1B.2	G3	S3	Cismontane woodland | Coastal bluff scrub | Valley & foothill grassland. Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 3-795 m. (CNDDB 2020). Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland. (Elevation 3-500 m.) Bloom period: Mar-Jun (CNPS 2020).
Antirrhinum virga	twig-like snapdragon	N/N/4.3	G3?	S3?	Chaparral, Lower montane coniferous forest. rocky, openings, often serpentinite. (Elevation 100-2015 m.) Bloom period: Jun-Jul (CNPS 2020).
Arabis modesta	modest rockcress	N/N/4.3	G3	S3	Chaparral, Lower montane coniferous forest. (Elevation 120-800 m.) Bloom period: Mar-Jul (CNPS 2020).

Arctostaphylos bakeri ssp. bakeri	Baker's manzanita	N/CR/1B.1	G2T1	S1	Broadleafed upland forest, Chaparral. often serpentinite. (Elevation 75-300 m.) Bloom period: Feb-Apr (CNPS 2020).
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	N/N/1B.1	G3T1	S1	Chaparral | Cismontane woodland. Chaparral, cismontane woodland. Highly restricted endemic to red rhyolites in Sonoma County. 90-375 m. (CNDDB 2020). Chaparral (rhyolitic), Cismontane woodland. (Elevation 75-370 m.) Bloom period: Feb-Apr(May) (CNPS 2020).
Astragalus claranus	Clara Hunt's milk-vetch	FE/ST/1B.1	G1	S1	Chaparral | Cismontane woodland | Valley & foothill grassland. Cismontane woodland, valley and foothill grassland, chaparral. Open grassy hillsides, especially on exposed shoulders in thin, volcanic clay soil moist in spring. 95-235 m. (CNDDB 2020). Chaparral (openings), Cismontane woodland, Valley and foothill grassland. serpentinite or volcanic, rocky, clay. (Elevation 75-275 m.) Bloom period: Mar-May (CNPS 2020).
Astragalus clevelandii	Cleveland's milk-vetch	N/N/4.3	G4	S4	Chaparral, Cismontane woodland, Riparian forest. serpentinite seeps. (Elevation 200-1500 m.) Bloom period: Jun-Sep (CNPS 2020).
Astragalus tener var. tener	alkali milk-vetch	N/N/1B.2	G2T1	S1	Alkali playa | Valley & foothill grassland | Vernal pool | Wetland. Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 0-170 m. (CNDDB 2020). Playas, Valley and foothill grassland (adobe clay), Vernal pools. alkaline. (Elevation 1-60 m.) Bloom period: Mar-Jun (CNPS 2020).
Balsamorhiza macrolepis	big-scale balsamroot	N/N/1B.2	G2	S2	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland. Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 35-1465 m. (CNDDB 2020). Chaparral, Cismontane woodland, Valley and foothill grassland. sometimes serpentinite. (Elevation 45-1555 m.) Bloom period: Mar-Jun (CNPS 2020).
Blennosperma bakeri	Sonoma sunshine	FE/SE/1B.1	G1	S1	Valley & foothill grassland | Vernal pool | Wetland. Vernal pools, valley and foothill grassland. Vernal pools and swales. 10-290 m. (CNDDB 2020). Valley and foothill grassland (mesic), Vernal pools. (Elevation 10-110 m.) Bloom period: Mar-May (CNPS 2020).

Calandrinia breweri	Brewer's calandrinia	N/N/4.2	G4	S4	Sandy to loamy soil, disturbed sites, burns (Jepson eFlora 2020). Chaparral, Coastal scrub. sandy or loamy, disturbed sites and burns. (Elevation 10-1220 m.) Bloom period: (Jan)Mar-Jun (CNPS 2020).
Calycadenia micrantha	small-flowered calycadenia	N/N/1B.2	G2	S2	Chaparral, Meadows and seeps (volcanic), Valley and foothill grassland. Roadsides, rocky, talus, scree, sometimes serpentinite, sparsely vegetated areas. (Elevation 5-1500 m.) Bloom period: Jun-Sep (CNPS 2020).
Castilleja affinis var. (=ssp.) neglecta	Tiburon paintbrush	FE/ST/1B.2	G4G5T1T2	S1S2	Ultramafic | Valley & foothill grassland. Valley and foothill grassland. Rocky serpentine sites. 120-400 m. (CNDDB 2020). Valley and foothill grassland (serpentinite). (Elevation 60-400 m.) Bloom period: Apr-Jun (CNPS 2020).
Castilleja ambigua var. (=ssp.) ambigua	johnny-nip	N/N/4.2	G4T4	S3S4	Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Valley and foothill grassland, Vernal pools margins. (Elevation 0-435 m.) Bloom period: Mar-Aug (CNPS 2020).
Castilleja ambigua var. (=ssp.) meadii	Mead's owls-clover	N/N/1B.1	G4T1	S1	Meadow & seep | Vernal pool | Wetland. Vernal pools, meadows and seeps. Soils of volcanic origin and tend to have high clay content and be gravelly. 450-475 m. (CNDDB 2020). Meadows and seeps, Vernal pools. Gravelly, volcanic, clay. (Elevation 450-475 m.) Bloom period: Apr-May (CNPS 2020).
Ceanothus confusus	Rincon Ridge ceanothus	N/N/1B.1	G1	S1	Chaparral | Cismontane woodland | Closed-cone coniferous forest | Ultramafic. Closed-cone coniferous forest, chaparral, cismontane woodland. Known from volcanic or serpentine soils, dry shrubby slopes. 150-1280 m. (CNDDB 2020). Closed-cone coniferous forest, Chaparral, Cismontane woodland. volcanic or serpentinite. (Elevation 75-1065 m.) Bloom period: Feb-Jun (CNPS 2020).
Ceanothus divergens	Calistoga ceanothus	N/N/1B.2	G2	S2	Chaparral | Cismontane woodland | Ultramafic. Chaparral. Rocky, serpentine or volcanic sites. 100-950 m. (CNDDB 2020). Chaparral (serpentinite or volcanic, rocky). (Elevation 170-950 m.) Bloom period: Feb-Apr (CNPS 2020).
Ceanothus purpureus	holly-leaved ceanothus	N/N/1B.2	G2	S2	Chaparral | Cismontane woodland. Chaparral, cismontane woodland. Rocky, volcanic slopes. 140-720 m. (CNDDB 2020). Chaparral, Cismontane woodland. volcanic, rocky. (Elevation 120-640 m.) Bloom period: Feb-Jun (CNPS 2020).

Ceanothus sonomensis	Sonoma ceanothus	N/N/1B.2	G2	S2	Chaparral | Ultramafic. Chaparral. Sandy, serpentine or volcanic soils140-795 m. (CNDDB 2020). Chaparral (sandy, serpentinite or volcanic). (Elevation 215-800 m.) Bloom period: Feb-Apr (CNPS 2020).
Centromadia parryi ssp. parryi	pappose tarplant	N/N/1B.2	G3T2	S2	Chaparral | Coastal prairie | Marsh & swamp | Meadow & seep | Valley & foothill grassland. Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 1-500 m. (CNDDB 2020). Chaparral, Coastal prairie, Meadows and seeps, Marshes and swamps (coastal salt), Valley and foothill grassland (vernally mesic). often alkaline. (Elevation 0-420 m.) Bloom period: May-Nov (CNPS 2020).
Centromadia parryi ssp. rudis	Parry's rough tarplant	N/N/4.2	G3T3	S3	Valley and foothill grassland, Vernal pools. alkaline, vernally mesic, seeps, sometimes roadsides. (Elevation 0-100 m.) Bloom period: May-Oct (CNPS 2020).
Chloropyron molle ssp. molle (=Cordylanthus mollis ssp. mollis)	soft salty bird's-beak	FE/SR/1B.2	G2T1	S1	Marsh & swamp | Salt marsh | Wetland. Coastal salt marsh. In coastal salt marsh with Distichlis, Salicornia, Frankenia, etc. 0-5 m. (CNDDB 2020). Marshes and swamps (coastal salt). (Elevation 0-3 m.) Bloom period: Jun-Nov (CNPS 2020).
Chorizanthe valida	Sonoma spineflower	FE/SE/1B.1	G1	S1	Coastal prairie (sandy). (Elevation 10-305 m.) Bloom period: Jun-Aug (CNPS 2020).
Clarkia breweri	Brewer's clarkia	N/N/4.2	G4	S4	Chaparral, Cismontane woodland, Coastal scrub. often serpentinite. (Elevation 215-1115 m.) Bloom period: Apr-Jun (CNPS 2020). Chaparral, talus, occasionally serpentine (Jepson eFlora 2020).
Clarkia gracilis ssp. tracyi	Tracy's clarkia	N/N/4.2	G5T3	S3	Chaparral (openings, usually serpentinite). (Elevation 65-650 m.) Bloom period: Apr-Jul (CNPS 2020).
Collomia diversifolia	serpentine collomia	N/N/4.3	G4	S4	Chaparral, Cismontane woodland. serpentinite, rocky or gravelly. (Elevation 200-600 m.) Bloom period: May-Jun (CNPS 2020).
Cryptantha dissita	serpentine cryptantha	N/N/1B.2	G2	S2	Chaparral (serpentinite). (Elevation 395-580 m.) Bloom period: Apr-Jun (CNPS 2020).
Downingia pusilla	dwarf downingia	N/N/2B.2	GU	S2	Valley & foothill grassland | Vernal pool | Wetland. Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 1-490 m. (CNDDB 2020). Valley and foothill grassland (mesic), Vernal pools. (Elevation 1-445 m.) Bloom period: Mar-May (CNPS 2020).

Erigeron biolettii	streamside daisy	N/N/3	G3?	S3?	Broadleafed upland forest, Cismontane woodland, North Coast coniferous forest. Jun-Oct. (Elevation 30-1100 ft.) Bloom period: None (CNPS 2020).
Erigeron greenei	Greene's narrow-leaved daisy	N/N/1B.2	G3	S3	Chaparral | Ultramafic. Chaparral. Serpentine and volcanic substrates, generally in shrubby vegetation 90-835 m. (CNDDB 2020). Chaparral (serpentinite or volcanic). (Elevation 80-1005 m.) Bloom period: May-Sep (CNPS 2020).
Eriogonum luteolum var. caninum	Tiburon buckwheat	N/N/1B.2	G5T2	S2	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland. serpentinite, sandy to gravelly. (Elevation 0-700 m.) Bloom period: May-Sep (CNPS 2020).
Eryngium jepsonii	Jepson's coyote-thistle	N/N/1B.2	G2	S2	Valley & foothill grassland | Vernal pool. Vernal pools, valley and foothill grassland. Clay. 3-305 m. (CNDDB 2020). Valley and foothill grassland, Vernal pools. clay. (Elevation 3-300 m.) Bloom period: Apr-Aug (CNPS 2020).
Extriplex joaquinana	San Joaquin spearscale	N/N/1B.2	G2	S2	Alkali playa | Chenopod scrub | Meadow & seep | Valley & foothill grassland. Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with Distichlis spicata, Frankenia, etc. 0-800 m. (CNDDB 2020). Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland. alkaline. (Elevation 1-835 m.) Bloom period: Apr-Oct (CNPS 2020).
Gilia capitata ssp. tomentosa	woolly-headed gilia	N/N/1B.1	G5T1	S1	Sea bluffs, outcrops (serpentine) (Jepson eFlora 2020). Coastal bluff scrub, Valley and foothill grassland. Serpentinite, rocky, outcrops. (Elevation 10-220 m.) Bloom period: May-Jul (CNPS 2020).
Harmonia nutans	nodding harmonia	N/N/4.3	G3	S3	Chaparral, Cismontane woodland. rocky or gravelly, volcanic. (Elevation 75-975 m.) Bloom period: Mar-May (CNPS 2020).
Helianthella castanea	Diablo helianthella	N/N/1B.2	G2	S2	Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland. Usually rocky, azonal soils. Often in partial shade. (Elevation 60-1300 m.) Bloom period: Mar-Jun (CNPS 2020).

Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	N/N/1B.2	G5T2	S2	Valley & foothill grassland. Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides 5-520 m. (CNDDB 2020). Valley and foothill grassland. sometimes roadsides. (Elevation 20-560 m.) Bloom period: Apr-Nov (CNPS 2020).
Hesperolinon bicarpellatum	two-carpellate western flax	N/N/1B.2	G2	S2	Chaparral (serpentinite). (Elevation 60-1005 m.) Bloom period: May-Jul (CNPS 2020).
Hesperolinon breweri	Brewer's western flax	N/N/1B.2	G2	S2	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland. Chaparral, cismontane woodland, valley and foothill grassland. Often in rocky serpentine soil in serpentine chaparral and serpentine grassland. 195-910 m. (CNDDB 2020). Chaparral, Cismontane woodland, Valley and foothill grassland. usually serpentinite. (Elevation 30-945 m.) Bloom period: May-Jul (CNPS 2020).
Hesperolinon sharsmithiae	Sharsmith's western flax	N/N/1B.2	G2Q	S2	Chaparral | Ultramafic. Chaparral. Serpentine substrates. 180-670 m. (CNDDB 2020). Chaparral. serpentinite. (Elevation 270-300 m.) Bloom period: May-Jul (CNPS 2020).
Horkelia tenuiloba	thin-lobed horkelia	N/N/1B.2	G2	S2	Broadleaved upland forest | Chaparral | Valley & foothill grassland. Broadleafed upland forest, chaparral, valley and foothill grassland. Sandy soils; mesic openings. 45-640 m. (CNDDB 2020). Broadleafed upland forest, Chaparral, Valley and foothill grassland. mesic openings, sandy. (Elevation 50-500 m.) Bloom period: May-Jul(Aug) (CNPS 2020).
Isocoma arguta	Carquinez goldenbush	N/N/1B.1	G1	S1	Valley & foothill grassland. Valley and foothill grassland. Alkaline soils, flats, lower hills. On low benches near drainages & on tops & sides of mounds in swale habitat. 1-50 m. (CNDDB 2020).
Juglans hindsii	Northern California black walnut	N/N/CBR	G1	S1	Riparian forest, Riparian woodland. (Elevation 0-440 m.) Bloom period: Apr-May (CNPS 2020).
Lasthenia conjugens	Contra Costa goldfields	FE/N/1B.1	G1	S1	Alkali playa | Cismontane woodland | Valley & foothill grassland | Vernal pool | Wetland. Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 1-450 m. (CNDDB 2020). Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools. mesic. (Elevation 0-470 m.) Bloom period: Mar-Jun (CNPS 2020).

Lathyrus jepsonii var. jepsonii	Delta tule pea	N/N/1B.2	G5T2	S2	Freshwater marsh | Marsh & swamp | Wetland. Marshes and swamps. In freshwater and brackish marshes. Often found with Typha, Aster lentus, Rosa californica, Juncus spp., Scirpus, etc. Usually on marsh and slough edges. 0-5 m. (CNDDB 2020). Marshes and swamps (freshwater and brackish). (Elevation 0-5 m.) Bloom period: May-Jul(Aug-Sep) (CNPS 2020).
Legenere limosa	legenere	N/N/1B.1	G2	S2	Vernal pool | Wetland. Vernal pools. In beds of vernal pools. 1-1005 m. (CNDDB 2020). Vernal pools. (Elevation 1-880 m.) Bloom period: Apr-Jun (CNPS 2020). Vernal pools. (Elevation 1-880 m.) Bloom period: Apr-Jun (CNPS 2020).
Leptosiphon acicularis	bristly leptosiphon	N/N/4.2	G4?	S4?	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland. (Elevation 55-1500 m.) Bloom period: Apr-Jul (CNPS 2020). Grassy areas, woodland, chaparral; Elevation: < 700 m (Jepson eFlora 2020).
Leptosiphon jepsonii	Jepson's leptosiphon	N/N/1B.2	G2G3	S2S3	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland. Chaparral, cismontane woodland, valley and foothill grassland. Open to partially shaded grassy slopes. On volcanics or the periphery of serpentine substrates. 55-855 m. (CNDDB 2020). Chaparral, Cismontane woodland, Valley and foothill grassland. usually volcanic. (Elevation 100-500 m.) Bloom period: Mar-May (CNPS 2020).
Leptosiphon latisectus	broad-lobed leptosiphon	N/N/4.3	G4	S4	Broadleafed upland forest, Cismontane woodland. (Elevation 170-1500 m.) Bloom period: Apr-Jun (CNPS 2020). Open or partially shaded grassy slopes; Elevation: < 1500 m (Jepson eFlora 2020).
Lessingia hololeuca	woolly-headed lessingia	N/N/3	G3?	S2S3	Broadleafed upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland. clay, serpentinite. (Elevation 15-305 m.) Bloom period: Jun-Oct (CNPS 2020). Coastal scrub, chaparral, grassland, roadsides, occasionally on serpentine or alkali soil; Elevation: 10--600 m (Jepson eFlora).

Lilaeopsis masonii	Mason's lilaeopsis	N/SR/1B.1	G2	S2	Freshwater marsh | Marsh & swamp | Riparian scrub | Wetland. Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. 0-10 m. (CNDDB 2020). Marshes and swamps (brackish or freshwater), Riparian scrub. . (Elevation 0-10 m.) Bloom period: Apr-Nov (CNPS 2020).
Limnanthes vinculans	Sebastopol meadowfoam	FE/SE/1B.1	G1	S1	Meadow & seep | Valley & foothill grassland | Vernal pool | Wetland. Meadows and seeps, vernal pools, valley and foothill grassland. Swales, wet meadows and marshy areas in valley oak savanna; on poorly drained soils of clays and sandy loam. 15-115 m. (CNDDB 2020). Meadows and seeps, Valley and foothill grassland, Vernal pools. vernally mesic. (Elevation 15-305 m.) Bloom period: Apr-May (CNPS 2020).
Lomatium repostum	Napa lomatium	N/N/4.3	G3	S3	Chaparral, Cismontane woodland. serpentinite. (Elevation 90-830 m.) Bloom period: Mar-Jun (CNPS 2020). Pine/oak woodland, chaparral, generally serpentine; Elevation: 100--800 m (Jepson eFlora 2020).
Lupinus sericatus	Cobb Mountain lupine	N/N/1B.2	G2?	S2?	Broadleaved upland forest | Chaparral | Cismontane woodland | Lower montane coniferous forest | Ultramafic. Chaparral, cismontane woodland, lower montane coniferous forest, broadleafed upland forest. In stands of knobcone pine-oak woodland, on open wooded slopes in gravelly soils; sometimes on serpentine. 120-1390 m. (CNDDB 2020). Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest. (Elevation 275-1525 m.) Bloom period: Mar-Jun (CNPS 2020).
Micropus amphibolus	Mt. Diablo cottonweed	N/N/3.2	G3G4	S3S4	Broadleafed upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland. rocky. (Elevation 45-825 m.) Bloom period: Mar-May (CNPS 2020).
Monardella viridis	green monardella	N/N/4.3	G3	S3	Broadleafed upland forest, Chaparral, Cismontane woodland. (Elevation 100-1010 m.) Bloom period: Jun-Sep (CNPS 2020).
Navarretia leucocephala ssp. pauciflora	few-flowered navarretia	FE/ST/1B.1	G4T1	S1	Vernal pool | Wetland. Vernal pools. Volcanic ash flow, and volcanic substrate vernal pools. 425-855 m. (CNDDB 2020). Vernal pools (volcanic ash flow). (Elevation 400-855 m.) Bloom period: May-Jun (CNPS 2020).

Penstemon newberryi var. sonomensis	Sonoma beardtongue	N/N/1B.3	G4T2	S2	Chaparral. Chaparral. Crevices in rock outcrops and talus slopes 180-1405 m. (CNDDB 2020). Chaparral (rocky). (Elevation 700-1370 m.) Bloom period: Apr-Aug (CNPS 2020).
Polygonum marinense	Marin knotweed	N/N/3.1	G2Q	S2	Brackish marsh | Marsh & swamp | Salt marsh | Wetland. Marshes and swamps. Coastal salt marshes and brackish marshes. 0-10 m. (CNDDB 2020). Marshes and swamps (coastal salt or brackish). (Elevation 0-10 m.) Bloom period: (Apr)May-Aug(Oct) (CNPS 2020).
Ranunculus lobbii	Lobb's aquatic buttercup	N/N/4.2	G4	S3	mesic. Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools. (Elevation 15-470 m.) Bloom period: Feb-May (CNPS 2020).
Senecio clevelandii var. clevelandii	Cleveland's ragwort	N/N/4.3	G4?T3Q	S3	Chaparral (serpentinite seeps). (Elevation 365-900 m.) Bloom period: Jun-Jul (CNPS 2020).
Sidalcea hickmanii ssp. napensis	Napa checkerbloom	N/N/1B.1	G3T1	S1	Chaparral. Chaparral. Rhyolitic substrates. 415-610 m. (CNDDB 2020). rhyolitic. Chaparral. (Elevation 415-610 m.) Bloom period: Apr-Jun (CNPS 2020).
Sidalcea hickmanii ssp. viridis	Marin checkerbloom	N/N/1B.1	G3TH	SH	Chaparral (serpentinite). (Elevation 50-430 m.) Bloom period: May-Jun (CNPS 2020).
Sidalcea keckii	Keck's checkerbloom	FE/N/1B.1	G2	S2	Cismontane woodland | Ultramafic | Valley & foothill grassland. Cismontane woodland, valley and foothill grassland. Grassy slopes in blue oak woodland. On serpentine-derived, clay soils, at least sometimes. 85-505 m. (CNDDB 2020). serpentinite, clay. Cismontane woodland, Valley and foothill grassland. (Elevation 75-650 m.) Bloom period: Apr-May(Jun) (CNPS 2020).
Streptanthus hesperidis	green jewelflower	N/N/1B.2	G2	S2	Chaparral | Cismontane woodland | Ultramafic. Chaparral, cismontane woodland. Openings in chaparral or woodland; serpentine, rocky sites. 240-765 m. (CNDDB 2020). serpentinite, rocky. Chaparral (openings), Cismontane woodland. (Elevation 130-760 m.) Bloom period: May-Jul (CNPS 2020).

Symphyotrichum lentum	Suisun Marsh aster	N/N/1B.2	G2	S2	Brackish marsh | Freshwater marsh | Marsh & swamp | Wetland. Marshes and swamps (brackish and freshwater). Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. 0-15 m. (CNDDB 2020). Marshes and swamps (brackish and freshwater). (Elevation 0-3 m.) Bloom period: (Apr)May-Nov (CNPS 2020).
Trichostema ruygtii	Napa bluecurls	N/N/1B.2	G1G2	S1S2	Chaparral | Cismontane woodland | Lower montane coniferous forest | Valley & foothill grassland | Vernal pool | Wetland. Cismontane woodland, chaparral, valley and foothill grassland, vernal pools, lower montane coniferous forest. Often in open, sunny areas. Also has been found in vernal pools. 30-680 m. (CNDDB 2020). Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland, Vernal pools. (Elevation 30-680 m.) Bloom period: Jun-Oct (CNPS 2020).
Trifolium amoenum	two-fork clover	FE/N/1B.1	G1	S1	Coastal bluff scrub | Ultramafic | Valley & foothill grassland. Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 5-310 m. (CNDDB 2020). Coastal bluff scrub, Valley and foothill grassland (sometimes serpentinite). (Elevation 5-415 m.) Bloom period: Apr-Jun (CNPS 2020).
Trifolium hydrophilum	saline clover	N/N/1B.2	G2	S2	Marsh & swamp | Valley & foothill grassland | Vernal pool | Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 1-335 m. (CNDDB 2020). Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools. (Elevation 0-300 m.) Bloom period: Apr-Jun (CNPS 2020).
Viburnum ellipticum	oval-leaved viburnum	N/N/2B.3	G4G5	S3?	Chaparral | Cismontane woodland | Lower montane coniferous forest. Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400 m. (CNDDB 2020). Chaparral, Cismontane woodland, Lower montane coniferous forest. (Elevation 215-1400 m.) Bloom period: May-Jun (CNPS 2020).
Monocots					

Agrostis hendersonii	Henderson's bent grass	N/N/3.2	G2Q	S2	Valley & foothill grassland | Vernal pool | Wetland. Valley and foothill grassland, vernal pools. Moist places in grassland or vernal pool habitat. 65-1030 m. (CNDDB 2020). Valley and foothill grassland (mesic), Vernal pools. (Elevation 70-305 m.) Bloom period: Apr-Jun (CNPS 2020).
Allium peninsulare var. franciscanum	Franciscan onion	N/N/1B.2	G5T2	S2	Cismontane woodland | Ultramafic | Valley & foothill grassland. Cismontane woodland, valley and foothill grassland. Clay soils; often on serpentine; sometimes on volcanics. Dry hillsides. 5-320 m. (CNDDB 2020). clay, volcanic, often serpentinite. Cismontane woodland, Valley and foothill grassland. (Elevation 52-305 m.) Bloom period: (Apr)May-Jun (CNPS 2020).
Brodiaea leptandra	narrow-anthered brodiaea	N/N/1B.2	G3?	S3?	Broadleaved upland forest | Chaparral | Cismontane woodland | Lower montane coniferous forest | Valley & foothill grassland. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Volcanic substrates. 30-590 m. (CNDDB 2020). volcanic. Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland. (Elevation 110-915 m.) Bloom period: May-Jul (CNPS 2020). Open mixed-evergreen forest, chaparral, gravelly soil; Elevation: 40--1220 m (Jepson eFlora 2020).
Calochortus pulchellus	Mt. Diablo fairy-lantern	N/N/1B.2	G2	S2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland. (Elevation 30-840 m.) Bloom period: Apr-Jun (CNPS 2020). Wooded slopes, rarely chaparral, generally northern aspect; Elevation: 200--800 m (Jepson eFlora 2020).
Carex lyngbyei	Lyngbye's sedge	N/N/2B.2	G5	S3	Marsh & swamp | Wetland. Marshes and swamps (brackish or freshwater). 0-200 m. (CNDDB 2020). Marshes and swamps (brackish or freshwater). (Elevation 0-10 m.) Bloom period: Apr-Aug (CNPS 2020).
Eleocharis parvula	small spikerush	N/N/4.3	G5	S3	Marshes and swamps. (Elevation 1-3020 m.) Bloom period: (Apr)Jun-Aug(Sep) (CNPS 2020).
Iris longipetala	coast iris	N/N/4.2	G3	S3	mesic. Coastal prairie, Lower montane coniferous forest, Meadows and seeps. (Elevation 0-600 m.) Bloom period: Mar-May (CNPS 2020).

Lilium rubescens	redwood lily	N/N/4.2	G3	S3	Sometimes serpentinite, sometimes roadsides. Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest. (Elevation 30-1910 m.) Bloom period: Apr-Aug(Sep) (CNPS 2020).
Rhynchospora californica	California beaked-rush	N/N/1B.1	G1	S1	Freshwater marsh | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Wetland. Bogs and fens, marshes and swamps, lower montane coniferous forest, meadows and seeps. Freshwater seeps and open marshy areas. 45-270 m. (CNDDB 2020). Bogs and fens, Lower montane coniferous forest, Meadows and seeps (seeps), Marshes and swamps (freshwater). (Elevation 45-1010 m.) Bloom period: May-Jul (CNPS 2020).
Sagittaria sanfordii	Sanford's arrowhead	N/N/1B.2	G3	S3	Marsh & swamp | Wetland. Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m. (CNDDB 2020). Marshes and swamps (assorted shallow freshwater). (Elevation 0-650 m.) Bloom period: May-Oct(Nov) (CNPS 2020).
Triteleia lugens	dark-mouthed triteleia	N/N/4.3	G4?	S4?	Broadleafed upland forest, Chaparral, Coastal scrub, Lower montane coniferous forest. Broadleafed upland forest, Chaparral, Coastal scrub, Lower montane coniferous forest. (Elevation 100-1000 m.) Bloom period: Apr-Jun (CNPS 2020).
Sensitive Natural Communities					
Northern Vernal Pool	Northern Vernal Pool	N/N/S2.1	G2	S2.1	Vernal pool | Wetland (CDFW 2020a).
Serpentine Bunchgrass	Serpentine Bunchgrass	N/N/S2.2	G2	S2.2	Valley & foothill grassland (CDFW 2020a).
Coastal Brackish Marsh	Coastal Brackish Marsh	N/N/S2.1	G2	S2.1	Marsh & swamp | Wetland (CDFW 2020a).
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	N/N/S3.2	G3	S3.2	Marsh & swamp | Wetland (CDFW 2020a).

Appendix C – National Wetlands Inventory Results

U.S. Fish and Wildlife Service
National Wetlands Inventory

NVC_ProjectScopeMap

April 10, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Appendix D - Surveys for Special Status Plants and Tree Inventory

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RE: Surveys for Special Status Plants and Tree Inventory for the Napa Valley College Student Housing Project

INTRODUCTION

This report presents findings based on surveys conducted for special status plants and also an inventory of trees for the proposed Napa Valley College (NVC) Student Housing Project. The Project Area is an approximately 7.19-acre area in the northeastern corner of the Napa College campus (Figure 1). All figures referenced are located at the end of the text.

The project site is located on the Napa Valley College Campus at 2277 Napa-Vallejo Highway within the city limits of Napa, near the city's southern boundary. The project would include improvements to a Napa County Community College District owned parcel, Assessor's Parcel Number (APN) 046-450-054.

The "Project Area" is defined as the extent of construction activities associated with engineering design for the Project. The Project Area includes infrastructure construction areas, as well as staging and stockpiling areas, and areas of vegetation removal. The Project Area is bounded to the south by Magnolia Drive and to the east by Napa-Vallejo Highway, and roughly bounded by the riparian corridors surrounding Tulucay Creek to the north and west (Figure 2).

An undocumented landfill associated with pre-1960 disposal of incinerator debris from historical Napa State Hospital operations is located on the westernmost portion of the project site. Reportedly, waste was burned in an incinerator located in the Project Area, and ash residuals were transported via a dirt road that connected the incinerator to the landfill disposal location. The landfill area is visible on aerial photographs in 1947 and 1958 but appears to be covered in vegetation in a 1968 aerial photograph. There was no visible evidence of the landfill in the 2020 surveys but the western portion of the site has uneven topography and looks altered.

METHODS

Jane Valerius and Joslyn Curtis, botanists, conducted surveys for special status plants on April 16, May 13, and June 16, 2020. The proposed development area was walked using random transects across and around the Project Area. As required by the California Department of Fish & Wildlife (CDFW) guidelines, the surveys were floristic in nature, meaning that all plants identifiable at the time of the survey were recorded. Appendix A provides a list of plant species observed during the April to June 2020 site visits.

Information on special status plant species was compiled through a review of the California Natural Diversity Data Base (CDFW 2020) and the California Native Plant Society (CNPS) Electronic Inventory records

(CNPS 2020) for the Napa and surrounding 7.5-minute topographic quadrangles. Botanical nomenclature used in this report conforms to The Jepson Manual (Baldwin et al. 2012) for plants. Appendix B presents a list of special status plant species reviewed for this project and includes a more than 5-mile radius around the Project Area.

An inventory of trees on the site was also conducted using a Trimble GPS to document the location and the diameter at breast height (dbh) of trees within the Project Area. A list of trees and their dbh is provided as Appendix C.

RESULTS

Vegetation Communities

Vegetation within the Project Area is comprised primarily of non-native grassland dominated by non-native grasses such as wild oats (*Avena barbata, A. fatua*), bromes (*Bromus diandrus, B. hordaceus*), barleys (*Hordeum marinum, H. murinum*), ryegrass (*Festuca perennis*) and Harding grass (*Phalaris aquatica*). Non-native forb species noted include Italian thistle (*Carduus pycnocephalus*), wild radish (*Raphanus sativus*), several species of vetch (*Vicia benghalensis, V. sativa* ssp. *nigra, V. villosa* ssp. *villosa*), salsify (*Tragopogon porrifolius)*, fennel (*Foeniculum vulgare*), and bindweed (*Convolvulus arvensis*). Several native forbs were also noted including fiddleneck (*Amsinckia menziesii, A. intermedia*), California poppy (*Eschscholzia californica*), dwarf lupine (*Lupinus bicolor*), and American bird's-foot trefoil (*Acmispon americanus*). One native species, California buckwheat (*Eriogonum fasciculatum*) occurs on site but appears to have been planted potentially as an ornamental species. Approximately 4.0 acres of non-native grassland were mapped as *Avena* spp.-*Bromus* spp. Herbaceous Semi-Natural Alliance or wild oats and annual bromes grassland.

Within the non-native grassland there were several large patches of blue wildrye (*Elymus glaucus*) comprising approximately 1.30 acres and one small 0.03 acres area of creeping wildrye (*Elymus triticoides*). These two grass species are not by themselves special status species but grassland that has 30% or greater relative cover of the species can be classified as a native grassland type. The Manual of California Vegetation (Sawyer et al. 2008) gives *Elymus glaucus* herbaceous alliance or blue wildrye meadows a ranking of S3. Plant communities with an S3 ranking are considered to be sensitive natural communities. *Elymus triticoides* herbaceous alliance or creeping rye grass turfs also has an S3 ranking and is listed as a sensitive natural community by CDFW (2019). However, the patches of these two grass species represent a small portion of the overall grassland within the Project Area and are not considered to function as a separate habitat type as they provide the same habitat values as the surrounding non-native grassland and are not truly separate communities. They also have all the same non-native grasses and weedy forb species so that the species composition is not significantly different with the exception of the higher concentration of the native grasses in these small areas.

Several trees occur mostly around the perimeter of the Project Area and many may have been planted as landscaping. Native trees include coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), and Northern California black walnut (*Juglans hindsii*). Non-native trees include fruit trees (*Prunus* spp.), olives (*Olea europea*), and cork oak (*Quercus suber*). One small 0.14 acre was mapped as a *Quercus agrifolia* Forest and Woodland Alliance or coast live oak woodland and is dominated by coast live oaks with some valley oak and Northern California black walnut.

The Project Area includes 1.72 acres of pavement with no vegetation.

Special-Status Plants

A total of 82 special status plants are recorded for the 9-quadrangle search around the Napa USGS quadrangle for the Project Area. Figure 3 shows the CNDDB occurrence for a 5-mile radius around the site. None are identified as occurring in the Project Area and most are not expected to occur due to lack of suitable habitat within the Project Area. The only habitat described for the site is non-native grassland with some native grasses as described above.

Only four of the 82 special status plants listed in Appendix B are considered to have a low to moderate potential to occur on the site based on the presence of potential suitable habitat. These are bent-flowered fiddleneck (*Amsinckia lunaris*), congested-headed tarplant (*Hemizonia congesta* ssp. *congesta*), Mt. Diablo cottonweed (*Micropus amphibolus*), and two-fork clover (*Trifolium amoenum*). None of these species were observed in the Project Area based on appropriately timed surveys which covered the flowering period for all of the special status plants with the potential to occur on site.

One potential special status species, Northern California black walnut (*Juglans hindsii*), was observed in the Project Area. This species has a CNPS Rank of 1B.1 but the designation as special status applies only to genetically pure, native populations, which are in decline or of historic significance. The Northern California black walnuts found in and near the Project Area are young, not old-growth individuals that would predate 1840 (the baseline for pure genetics prior to European orchard stock introduction). Therefore, the Northern California black walnuts on site do not qualify as special status as only trees that are considered to be historic, natural occurrences quality as special status.

Tree Inventory

A total of 64 trees were identified for the Project Area. Based on the inventory there are 44 coast live oak trees, 8 valley oaks, one cork oak, 2 fruit, 5 walnut and 4 olive trees. Coast live oak trees range in dbh from 1 to 37 inches. Valley oaks range in dbh from 1 to 60 inches. Walnuts range in dbh from 2 to 11 inches. Olives range from 4 to 32 inches. Fruit trees range from 1 to 24 inches and the one cork oak is 26 inches. Figure 4 provides a map of the location of trees based on the tree inventory.

Native Grasslands

Approximately 0.03 acres of creeping wild rye grass turfs were mapped for the approximately 8-acre Project Area. This is a very small percentage of the overall area and overall grassland and would not be considered its own separate grassland community type, so no mitigation is recommended.

Approximately 1.3 acres of the blue wildrye meadows type were mapped for the Project Area. Areas where these grasses had a relative cover of 30% or more were mapped. However, they represent a small portion of the overall grassland within the Project Area and are not considered to function as a separate habitat type as they provide the same habitat values as the surrounding non-native grassland and are not truly separate communities. The Project Area has in the past been mowed and baled seasonally by a local 4H club and has also been hydroseeded for erosion control (NVC personal communication, Matt Christensen). The presence of blue wildrye appears to be out of place with its normal habitat as this species is more naturally found in the understory and openings of shrubland and woodland communities such as chaparrals, woodlands and forests (Jepson eflora at www.ucjeps.berkeley.edu). The presence of the blue wildrye in this area may be the result of artificial introduction through past seeding efforts. The 2004 EIR prepared for the Napa Valley College Long Range Facilities Master Plan did not identify blue wildrye as a species within the grassland or woodland habitat within the campus, further supporting the premise that this species has been introduced through a seeding program and is not natural to the site.

Consequently, the areas observed as having blue wildrye are not considered to truly qualify as a sensitive natural community. They are not truly native in that this is not the typical habitat where these species would be present and they do not function separately from the surrounding non-native grassland community labeled as *Avena* spp.-*Bromus* spp. Herbaceous Semi-Natural Alliance or non-native grassland.

No mitigation is proposed for these grassland types as they are functionally the same as the non-native grassland that is dominant for the Project Area.

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Personal Communication

NVC personal communication, Matt Christensen

APPENDIX A

Plant species observed during the April to June 2020 site visits.

Scientific Name	Common Name
Acacia sp.	Acacia*
Acmispon americanus	American bird's foot trefoil
Amsinckia intermedia	Common fiddleneck
Amsinckia menziesii	Fiddleneck
Arundo donax	Giant reed*
Avena barbata	Wild oats*
Avena fatua	Wild oats*
Baccharis pilularis	Coyote brush
Brassica nigra	Black mustard*
Briza minor	Small quaking grass*
Bromus diandrus	Ripgut brome*
Bromus hordaeceus	Soft chess*
Carduus pycnocephalus	Italian thistle*
Carex sp.	Sedge
Cichorium intybus	Chicory*
Conium maculatum	Poison hemlock*
Convolvulus arvensis	Bindweed*
Cynodon dactylon	Bermuda grass*
Cyperus eragrostis	Tall flat sedge
Cytisus scoparius	Scotch broom*
Daucus carota	Queen Anne's lace*
Elymus glaucus	Blue wildrye
Elymus triticoides	Creeping wildrye
Eriogonum fasciculatum	California buckwheat – planted as ornamental
Erodium brachycarpum	White stemmed filaree*
Eschscholzia californica	California poppy
Festuca perennis	Ryegrass*
Foeniculum vulgare	Fennel*
Galium aparine	Common bedstraw
Genista monspessulana	French broom*
Geranium dissectum	Cut-leaf geranium*
Geranium purpureum	Herb Robert
Geranium robertianum	Robert geranium*
Helminthotheca echioides	Bristly ox-tongue*
Hirshfeldia incana	Short pod mustard*
Holcus lanatus	Velvet grass*
Hordeum brachyantherum	Meadow barley
Hordeum marinum ssp. *gussoneaum*	Mediterranean barley*
Hordeum murinum ssp. *leporinum*	Hare barley*
Hypochaeris radicata	Rough cat's-ear*
Juglans hindsii	Northern California black walnut (along creek)
Lactuca serriola	Prickly lettuce*

Scientific Name	Common Name
Leontodon saxatilis	Hawkbit*
Lotus corniculatus	Bird's-foot trefoil*
Lupinus bicolor	Dwarf lupine
Lysimachia arvensis	Scarlet pimpernel*
Malva parviflora	Mallow*
Medicago polymorpha	Bur clover*
Nasturtium officinale	Watercress
Olea europea	Olive trees*
Persicaria sp.	Smartweed
Phalaris aquatica	Harding grass*
Plantago lanceolata	English plantain*
Prunus spp.	Fruit trees
Pseudognaphalium sp.	Cudweed*
Quercus agrifolia	Coast live oak
Quercus lobata	Valley oak
Quercus suber	Cork oak*
Raphanus sativus	Wild radish*
Rosa sp.	Garden rose*
Rubus armeniacus	Himalayan blackberry*
Rumex crispus	Curly dock*
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
Scandix pecten-veneris	Shepherd's needle*
Sisymbrium officinale	Hedge mustard*
Solanum sp.	Nightshade
Sonchus asper ssp. *asper*	Sow thistle*
Stipa pulchra	Purple needle grass
Taraxacum officinale	Dandelion*
Tragopogon porrifolius	Salsify*
Trifolium fragiferum	Strawberry clover*
Trifolium glomeratum	Clustered cloveer
Trifolium hirtum	Rose clover*
Trifolium repens	White clover*
Trifolium subterraneum	Subterranean clover*
Vicia benghalensis	Purple vetch*
Vicia sativa ssp. *nigra*	Smaller common vetch*
Vicia villosa ssp. villosa	Hairy vetch*

Species with an * are non-native.

APPENDIX B

Special status plants with the potential to occur within the study area based on a 9-quadrangle search around the Napa USGS quadrangle.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Agrostis hendersonii Henderson's bent grass	-/-/3	Valley and foothill grassland (mesic), vernal pools. Blooms April to June. Elevation: 70-305m.	Absent	No	None. Typical grassland habitat not present in study area-not mesic and no vernal pools.
Allium peninsulare var. *franciscanum* Franciscan onion	-/-/1B	Cismontane woodland, valley and foothill grassland on clay, volcanic soils; often on serpentinite. Blooms May to June. Elevation 52-300m.	Absent	No	None. Grassland habitat on site not suitable – not clay or volcanic soils and no serpentinite.
Amorpha californica var. *napenis* Napa false indigo	-/-/1B	Broadleafed upland forest openings, chaparral, cismontane woodland. 120-2000m elevation. Blooms April- July.	Absent	No	None. No habitat not present in study area.
Amsinckia lunaris Bent-flowered fiddleneck	-/-/1B	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. Blooms March to June. Elevation: 3-500m.	Present	No	Moderate. Potential grassland in study area but not observed during survey. Common species of *Amsinckia* were observed.
Antirrhinum virga Twig-like snapdragon	-/-/4	Chaparral, lower montane coniferous forest in rocky openings often on serpentinite. Blooms June to July. Elevation: 100-2015m.	Absent	No	None. No serpentine in study area.
Arabis modesta Modest rockcress	-/-/4	Chaparral, lower montane coniferous forest. Blooms March to July. Elevation: 120-800m.	Absent	No	None. No habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Arctostaphylos bakeri ssp. *bakeri* Baker's manzanita	-/-/1B	Broadleafed upland forest, chaparral, often on serpentinite. Blooms February to April.	Absent	No	None. No habitat in study area.
Arctostaphylos stanfordiana ssp. *decumbens* Rincon Ridge manzanita	-/-/1B	Chaparral on rhyolitic soils and cismontane woodland. Blooms February to April (sometimes May). Elevation: 75-370m.	Absent	No	None. No habitat in study area.
Astragalus claranus Clara Hunt's milk-vetch	FE/CT/1B	Openings in chaparral, cismontane woodland, valley and foothill grassland on serpentinite or volcanic, rocky or clay soils. Blooms March to May. Elevation: 75-275m.	Absent	No	None. No habitat in study area. No serpentinite or volcanic, rocky or clay soils.
Astragalus clevelandii Cleveland's milk-vetch	-/-/4	Serpentine seeps, chaparral, cismontane woodland, riparian forest. 200-1500m elevation. Blooms June-September.	Absent	No	None. No habitat in study area.
Astragalus tener var. *tener* Alkali milk-vetch	-/-/1B	Playas, grassland (adode clay), vernal pools (alkaline). Blooms March-June. Elevation: 1-60m.	Absent	No	None. No habitat in study area.
Balsamorhiza macolepis Big-scale balsamroot	-/-/1B	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentinite. Blooms March to June. Elevation 90-1555m.	Absent	No	Low. Potential grassland habitat in study area. Not observed during surveys.
Blennosperma bakeri Sonoma sunshine	FE/CE/1B	Valley and foothill grassland (mesic), vernal pools. Blooms March to May. Elevation: 10-110m.	Absent	No	None. No habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Brodiaea leptandra Narrow-anthered brodiaea	-/-/1B	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland on volcanic soils. 110-915m elevation. Blooms May-July.	Absent	No	None. Grassland in study area not on volcanic soils. Not observed during surveys.
Calandrinia breweri Brewer's calandrinia	-/-/4	Chaparral and coastal scrub on sandy or loam soils and in disturbed sites and burns. Blooms March to June. Elevation: 10-1220m.	Absent	No	None. No habitat in study area.
Calochortus pulchellus Mt. Diablo fairy lantern	-/-/1B	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. Blooms April to June. Elevation: 30-840m.	Absent	No	None. No habitat in study area. Grassland habitat in study area suitable habitat for this species.
Calycadenia micrantha Small-flowered calycadenia	-/-/1B	Chaparral, meadows and seeps (volcanic), valley and foothill grassland on roadsides, rocky talus, scree, sometimes serpentinite and sparsely vegetated areas. 5-1500m elevation. Blooms June-September.	Absent	No	None. No habitat in study area. Grassland habitat in study area suitable habitat for this species.
Carex lyngbyei Lyngbye's sedge	-/-/2B	Freshwater or brackish marshes and swamps. Blooms April to August. Elevation 0-10m.	Absent	No	None. No habitat in study area.
Castilleja affinis var. *neglecta* Tiburón paintbrush	-/-/1B	Valley and foothill grassland on serpentinite. Blooms April to June. Elevation: 60-400m.	Absent	No	None. No habitat in study area – no serpentinite.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Castilleja ambigua var. *ambigua* Johnny-nip	-/-/4	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools margins. Blooms March to August. Elevation: 0-435m.	Absent	No	None. Typical habitat not on site. Not observed during surveys.
Castilleja ambigua var. *meadii* Mead's owls-clover	-/-/1B	Meadows and seeps, vernal pools on gravelly, volcanic or clay soils. Prefers soils of volcanic origin that tend to have a high clay content and be gravelly. Blooms April-May. Elevation: 450-475m.	Absent	No	None. No habitat in study area.
Ceanothus confusus Rincon Ridge ceanothus	-/-/1B	Closed-cone coniferous forest, chaparral, cismontane woodland on volcanic or serpentinite. Blooms February to June. Elevation: 75-1065m.	Absent	No	None. No habitat in study area.
Ceanothus divergens Holly-leaved ceanothus	-/-/1B	Chaparral on serpentinite or volcanic, rocky soils. Blooms February to April. Elevation 170-950m.	Absent	No	None. No habitat in study area.
Ceanothus purpureus Holly-leaved ceanothus	-/-/1B	Chaparral, cismontane woodland on volcanic or rocky soils. 120-640m elevation. Blooms February-June.	Absent	No	None. No habitat in study area.
Ceanothus sonomensis Sonoma ceanothus	-/-/1B	Chaparral on sandy, serpentinite or volcanic soils. Blooms February to April. Elevation: 215-800m.	Absent	No	None. No habitat in study area.
Centromadia parryi ssp. *parryi* Pappose tarplant	-/-/1B	Chaparral, coastal prairie, meadows and seeps, coastal salt marshes and swamps, valley and foothill grassland on vernally mesic, often alkaline sites. May-November. Elevation: 2-420m.	Absent	No	None. No habitat in study area. Grassland in study area not potential suitable habitat.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Centromadia parryi ssp. *rudis* Parry's rough tarplant	-/-/4	Valley and foothill grassland, vernal pools, in alkaline soils, vernally mesic sites and seeps. Blooms May to October. Elevation: 0-100m.	Absent	No	None. No habitat in study area. Grassland in study area not potential suitable habitat.
Chloropyron molle ssp. *molle* Soft bird's-beak	-/-/1B	Coastal salt marshes and swamps. Blooms July-November. Elevation: 0-3m.	Absent	No	None. No habitat in study area.
Chorizanthe valida Sonoma spineflower	-/-/1B	Coastal prairie, sandy. Blooms June to August. Elevation: 10-305m.	Absent	No	None. No habitat in study area.
Clarkia breweri Brewer's clarkia	-/-/4	Chaparral, cismontane woodland, coastal scrub, often on serpentinite. 215-1115m. Blooms April-June.	Absent	No	None. No habitat in study area.
Clarkia gracilis ssp. *tracyi* Tracy's clarkia	-/-/4	Openings in chaparral, sometimes on serpentinite. 65-650m elevation. Blooms April-July	Absent	No	None. No habitat in study area.
Collomia diversifolia Serpentine collomia	-/-/4	Chaparral, cismontane woodland on serpentinite, rocky or gravelly soils. Blooms May to June. Elevation: 300-600m.	Absent	No	None. No habitat in study area.
Cryptantha dissita Serpentine cryptantha	-/-/1B	Chaparral on serpentinite. Blooms April to June.	Absent	No	None. No habitat in study area.
Downingia pusilla Dwarf downingia	-/-/2B	Mesic valley and foothill grassland, vernal pools. 1-445m elevation. Blooms March-May.	Absent	No	None. No habitat in study area.
Eleocharis parvula Small spikerush	-/-/4	Marshes and swamps. Blooms April to September. Elevation: 1-3020m.	Absent	No	None. No habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Erigeron biolettii Streamside daisy	-/-/3	Broadleafed upland forest, cismontane woodland, North Coast coniferous forest on rocky and mesic sites. Blooms June-October. Elevation 30-1100m.	Absent	No	None. No habitat in study area.
Erigeron greenei Greene's narrow-leaved daisy	-/-/1B	Chaparral on serpentinite or volcanic soils. 80-1005m elevation. Blooms May-September.	Absent	No	None. No habitat in study area.
Eriogonum luteolum var. *caninum* Tiburón buckwheat	-/-/1B	Chaparral, cismontane woodland, coastal prairie, grassland on serpentinite or sandy to gravelly soils. Blooms May-September. Elevation: 0-700m.	Absent	No	None. No habitat in study area.
Eryngium jepsonii Jepson's coyote thistle	-/-/1B	Valley and foothill grassland, vernal pools on clay soils. Blooms April to August. Elevation: 3-300m.	Absent	No	None. No potential suitable habitat in study area.
Etriplex joaquinana San Joaquin spearscale	-/-/1B	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland in alkaline soils. Blooms April to October. Elevation: 1-835m.	Absent	No	None. No potential suitable habitat in study area.
Gilia capitata ssp. *tomentosa* Woolly-headed gilia	-/-/1B	Valley and foothill grassland on serpentinite, rocky soils and outcrops. Blooms May to July. Elevation: 10-220m.	Absent	No	None. No habitat in study area.
Harmonia nutans Nodding harmonia	-/-/4	Chaparral, cismontane woodland on rocky, gravelly or volcanic soils. 75-975m elevation. Blooms March-May.	Absent	No	None. No habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Helianthella castanea Diablo helianthella	-/-/1B	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, usually in rock, axonal soils, often in partial shade. Blooms March to June. Elevation: 60-1300m.	Absent	No	None. No suitable habitat in study area.
Hemizonia congesta ssp. *congesta* Congested-head hayfield tarplant	-/-/1B	Valley and foothill grassland, sometimes roadsides. Blooms April to November. Elevation: 20-560m.	Present	No	Moderate. Potential suitable habitat present in study area. Not observed during surveys.
Hesperolinon bicarpellatum Two-carpellate western flax	-/-/1B	Chaparral on serpentinite. 60-1005m elevation. Blooms May-July.	Absent	No	None. No habitat in study area.
Hesperolinon breweri Brewer's western flax	-/-/1B	Chaparral, cismontane woodland, valley and foothill grassland usually on serpentinite. Blooms May to July. Elevation: 30-945m.	Absent	No	None. No habitat in study area.
Hesperolinon sharsmithiae Sharsmith's western flax	-/-/1B	Chaparral on serpentinite. Blooms May to July. Elevation: 270-300m.	Absent	No	None. No habitat in study area.
Horkelia tenuiloba Thin-lobed horkelia	-/-/1B	Broadleafed upland forest, chaparral, valley and foothill grassland/mesic openings, sandy. Blooms May to July (August). Elevation: 50-500m.	Absent	No	None. No suitable habitat in study area.
Iris longipetala Coast iris	-/-/4	Coastal prairie, lower montane coniferous forest, meadows and seeps in mesic sites. Blooms March to May. Elevation 0 -600 m.	Absent	No	None. No habitat in study area.
Isocoma arguta Carquinez goldenbush	-/-/1B	Valley and foothill grassland in alkaline soils. Blooms August to December. Elevation: 1-20m.	Absent	No	None. No suitable habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Juglans hindsii Northern California black walnut	-/-/1B	Riparian forest, riparian woodland. Blooms April to May. Elevation: 0-440m.	Present	Yes	Black walnut trees on site are not original, historic trees and are not considered to be special status trees.
Lasthenia conjugens Contra Costa goldfields	FE/-/1B	Cismontane woodland, alkaline playas, valley and foothill grassland, vernal pools. 0-470m elevation. Blooms March-June.	Absent	No	None. No suitable habitat in study area.
Lathyrus jepsonii var. *jepsonii* Delta tule pea	-/-/1B	Freshwater and brackish marshes and swamps. Blooms May to September. Elevation: 0-5m.	Absent	No	None. No habitat in study area.
Legenere limosa Legenere	-/-/1B	Vernal pools. Blooms April to June. Elevation: 1-880m.	Absent	No	None. No habitat in study area.
Leptosiphon acicularis Bristly leptosiphon	-/-/4	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Blooms April to July. Elevation: 55-1500m.	Absent	No	None. No suitable habitat in study area. Grassland on site not typical habitat for this species.
Leptosiphon jepsonii Jepson's leptosiphon	-/-/1B	Chaparral, cismontane woodland, usually volcanic. 100-500m elevation. Blooms March-May.	Absent	No	None. No habitat in study area.
Leptosiphon latisectus Broad-lobed leptosiphon	-/-/4	Broadleafed upland forest, cismontane woodland. Blooms April-June. Elevation: 170-1500m.	Absent	No	None. No habitat in study area.
Lessingia hololeuca Woolly-headed lessingia	-/-/3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland/clay, serpentinite. Blooms June-October. Elevation: 15-305m.	Absent	No	None. No suitable habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Lilaeopsis masonii Mason's lilaeopsis	-/CR/1B	Brackish or freshwater marshes and swamps, riparian scrub. Blooms April to November. Elevation: 0-10m.	Absent	No	None. No habitat in study area.
Lilium rubescens Redwood lily	-/-/4	Broadleafed upland forest, chaparral, lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest, sometimes serpentinite, sometimes roadsides. Blooms April to September. Elevation: 30-1910m.	Absent	No	None. No habitat in study area.
Limnanthes vinculans Sebastopol meadowfoam	FE/CE/1B	Meadows and seeps, valley and foothill grassland, vernal pools, vernally mesic. 15-305m elevation. Blooms April-May.	Absent	No	None. No habitat in study area. Grassland habitat in study area not typical habitat for this species.
Lomatium repostum Napa lomatium	-/-/4	Chaparral, cismontane woodland on serpentinite. 90-830m elevation. Blooms March-June.	Absent	No	None. No habitat in study area.
Lupinus sericatus Cobb Mountain lupine	-/-/1B	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. Blooms March-June. Elevation: 275-1525m.	Absent	No	None. No habitat in study area.
Micropus amphibolus Mt. Diablo cottonweed	-/-/3	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland on rocky soils. Booms March-May. Elevation: 45-825m.	Present	No	Low. Potential grassland habitat in study area. Not observed during surveys.
Monardella viridis Green monardella	-/-/4	Broadleafed upland forest, chaparral, cismontane woodland. 100-1010m elevation. Blooms June-September.	Absent	No	None. No habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Navarretia leucocephala ssp. *pauciflora* Few-flowered navarretia	FE/CE/1B	Volcanic ash flow vernal pools. 400-855m elevation. Blooms May-June.	Absent	No	None. No habitat in study area.
Penstemon newberryi var. *sonomensis* Sonoma beardtongue	-/-/1B	Chaparral on rocky soils. 700-1370m elevation. Blooms April-August.	Absent	No	None. No habitat in study area.
Polygonum marinense Marin knotweed	-/-/3	Coastal salt or brackish marshes and swamps. (April) May-August (October). Elevation: 0-10m.	Absent	No	None. No habitat in study area.
Ranunculus lobbii Lobb's aquatic buttercup	-/-/4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools. 15-470m elevation. Blooms February-May.	Absent	No	None. No habitat in study area. Grassland habitat in study area not typical habitat for this species. This is an aquatic plant.
Rhynchospora califórnica California beaked-rush	-/-/4	Bogs and fens, lower montane coniferous forest, meadows and seeps, freshwater marshes and swamps. Blooms May to July. Elevation: 45-1010m.	Absent	No	None. No habitat in study area.
Sagittaria sanfordii Sanfords' arrowhead	-/-/1B	Assorted shallow freshwater marshes and swamps. Blooms May to October (November). Elevation: 0-650m.	Absent	No	None. No habitat in study area.
Senecio clevelandii var. *clevelandii* Clevelands' ragwort	-/-/4	Chaparral in serpentine seeps. Blooms June to July. Elevation: 365-900m.	Absent	No	None. No habitat in study area.
Sidalcea hickmanii ssp. *napensis* Napa checkerbloom	-/-/1B	Chaparral on rhyolitic soils. Blooms April-June. Elevation: 415-610m.	Absent	No	None. No habitat in study area.
Sildalcea hickmanii ssp. *viridis* Marin checkerbloom	-/-/1B	Chaparral on serpentinite. Blooms May to June. Elevation: 50-430m.	Absent	No	None. No habitat in study area.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Sidalcea keckii Keck's checkerbloom	-/-/1B	Cismontane woodland, valley and foothill grassland on serpentinite or clay soils. Blooms April to May (June). Elevation: 75-650m.	Absent	No	None. No habitat in study area.
Streptanthus hesperidis Green jewel-flower	-/-/1B	Openings in chaparral, cismontane woodland, on serpentinite or rocky soils. 130-760m elevation. Blooms May-July.	Absent	No	None. No habitat in study area.
Symphyotrichum lentum Suisun Marsh aster	-/-/1B	Brackish and freshwater marshes and swamps. Blooms April to November. Elevation: 0-3m.	Absent	No	None. No habitat in study area.
Trichosema ruygtii Napa bluecurls	-/-/1B	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, vernal pools. Blooms June to October. Elevation: 30-680m.	Absent	No	None. No habitat in study area. Grassland in study area not suitable habitat for this species.
Trifolium amoenum Two-fork clover	FE/-/1B	Coastal bluff scrub, valley and foothill grassland, sometimes on serpentinite. Elevation: 5-415m. Blooms April-June.	Present	No	Low. Potential suitable grassland habitat in study area. Not observed during surveys.
Trifolium hydrophilum Saline clover	-/-/1B	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. April-June. Elevation: 0-300m.	Absent	No	None. Typical habitat not present in study area. No alkaline soils. Not observed during surveys.
Triteleia lugens Dark-mouthed triteleia	-/-/4	Broadleafed upland forest, chaparral, coastal scrub, lower montane coniferous forest. Blooms: April to June. Elevation: 100-1000 m.	Absent	No	None. No habitat in study area.
Viburnum ellipticum Oval-leaved viburnum	-/-/2B	Chaparral, cismontane woodland, lower montane coniferous forest. Blooms May to June. Elevation: 215-1400m.	Absent	No	None. No habitat in study area.
Special Status/Sensitive Natural Communities					

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS Rank**	**Habitat Affinities and Blooming Period/Life Form**	**Habitat Present/Absent**	**Observed During Surveys?**	**Potential for Occurrence**
Creeping Rye Grass Turfs			Creeping rye (*Elymus triticoides*) is present but area is too small to be called out as a separate habitat type.	Yes	One small area was identified but it is too small to be called out as a separate grassland type.
Blue Wild Rye Meadows			Blue wildrye (*Elymus glaucus*) is present but grassland community is considered to be artificial and not truly native.	Yes	Areas with 30% or greater relative cover by blue wildrye are relatively small and were artificially seeded and therefore not truly native. The open grassland habitat on site is not the typical ecological habitat for this species.
Coastal Brackish Marsh			Absent	No	None
Northern Coastal Salt Marsh			Absent	No	None
Northern Vernal Pool			Absent	No	None
Serpentine Bunchgrass			Absent	No	None
Valley Needlegrass Grassland			Absent	Individuals observed but not as a mappable grassland area.	None. A few individuals of purple needlegrass were observed but not enough to make a separate grassland type.

NOTES:

U.S. FISH AND WILDLIFE SERVICE

FE = federally listed Endangered

FT = federally listed Threatened

CALIFORNIA DEPT. OF FISH AND WILDLIFE

CE = California listed Endangered

CR= California listed as Rare

CT = California listed as Threatened

CALIFORNIA NATIVE PLANT SOCIETY -

Rank 1B: Plants rare and endangered in California and elsewhere

Rank 2B: Plants rare and endangered in California but more common elsewhere.

Rank 3: Plants about which more information is needed – a review list.

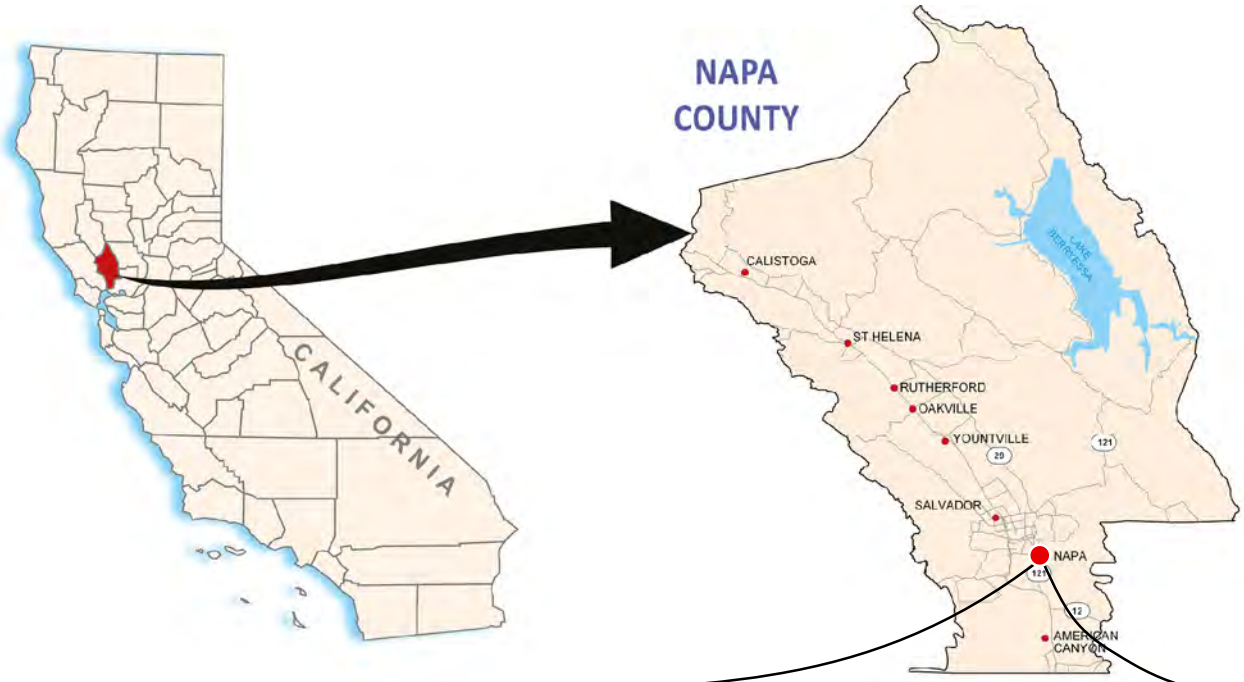
Rank 4: Plants of limited distribution – a watch list.

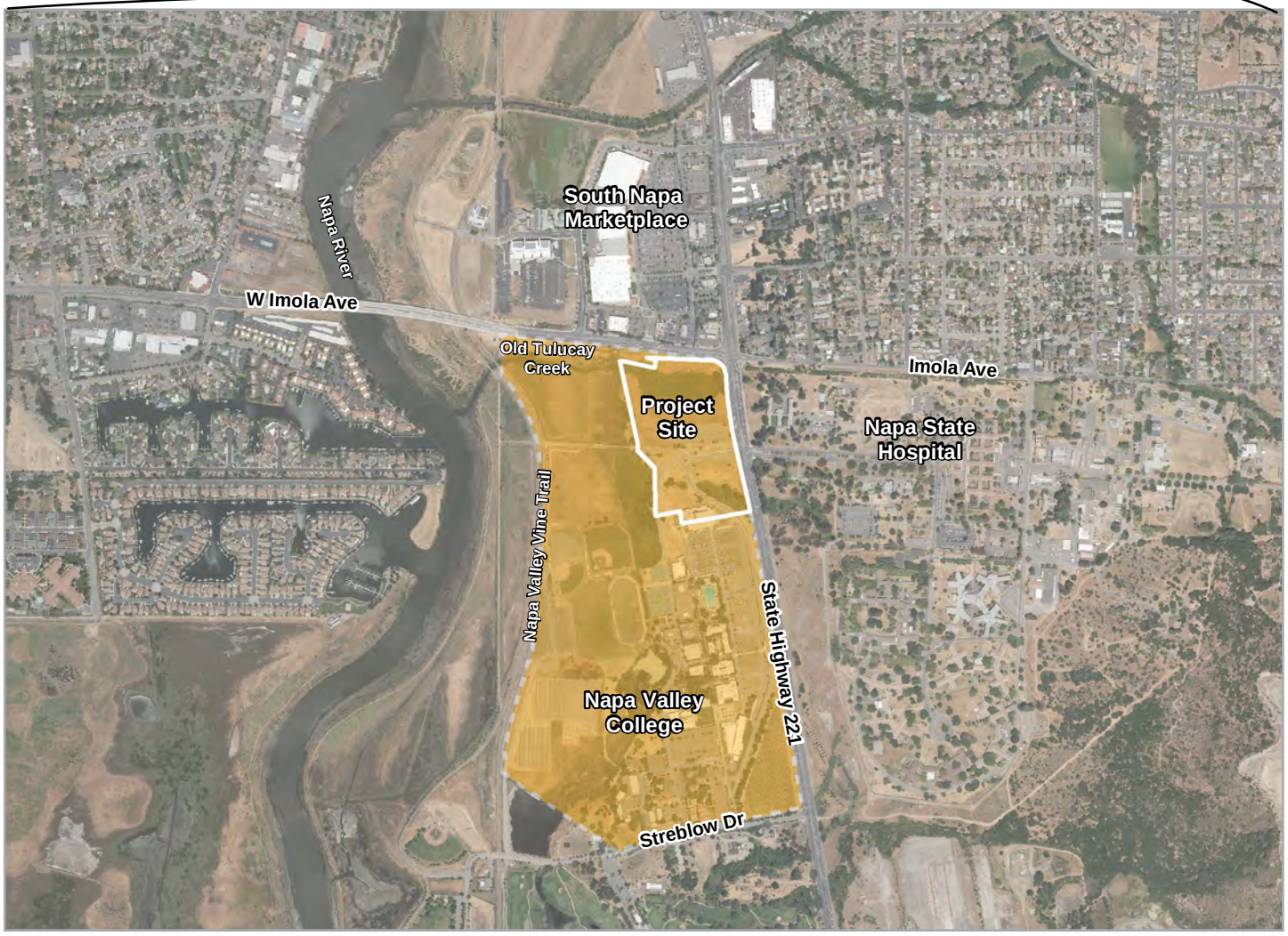
APPENDIX C

List of trees by species and diameter at breast height (see Figure 4 for tree locations)

FID Number	Species	Diameter at breast height (dbh) in inches
0	*Quercus lobata*	60
1	*Quercus agrifolia*	2
2	*Quercus agrifolia* 3 stems	1
3	*Quercus agrifolia* 2 stems	2
4	*Quercus agrifolia*	8
5	*Quercus lobata*	1
6	*Prunus* sp.	1
7	*Quercus agrifolia*	11
8	*Prunus* sp. – multistem	12 x 3-4 inch; 24 inch base
9	*Quercus agrifolia* - multistem	10 in at base
10	*Quercus agrifolia*	Two 6 inch stems
11	*Quercus agrifolia*	4 inch branched
12	*Quercus agrifolia*	18-20
13	*Quercus agrifolia*	2
14	*Quercus agrifolia*	8
15	*Quercus agrifolia*	17-18
16	*Quercus agrifolia*	18-20
17	*Quercus agrifolia*	5
18	*Quercus agrifolia*	4
19	*Juglans hindsii*	3 and 2 inches
20	*Quercus agrifolia*	8
21	*Quercus suber*	26
22	*Quercus agrifolia*	11 and 19 inches
23	*Quercus lobata*	8
24	*Juglans hindsii*	10.5
25	*Olea europea*	5 and 4 inches
26	*Quercus lobata*	13
27	*Quercus agrifolia*	11
28	*Juglans hindsii*	9
29	*Juglas hindsii*	10
30	*Quercus lobata*	3
31	*Quercus lobata*	6 and 10 inches
32	*Quercus agrifolia*	22
33	*Olea europea*	32
34	*Olea europea*	32
35	*Olea europea*	32
36	*Quercus agrifolia*	2
37	*Quercus agrifolia*	5
38	*Quercus agrifolia*	1

FID Number	Species	Diameter at breast height (dbh) in inches
39	*Quercus agrifolia*	1
40	*Quercus agrifolia*	1
41	*Quercus agrifolia*	1
42	*Quercus agrifolia*	1
43	*Quercus agrifolia*	1
44	*Quercus agrifolia*	1
45	*Quercus lobata*	2
46	*Quercus agrifolia*	1
47	*Quercus lobata*	1
48	*Quercus agrifolia*	1
49	*Quercus agrifolia*	2
50	*Quercus agrifolia*	1
51	*Quercus agrifolia*	1
52	*Quercus agrifolia*	4
53	*Quercus agrifolia*	26
54	*Juglans hindsii*	11
55	*Quercus agrifolia*	37
56	*Quercus agrifolia*	19
57	*Quercus agrifolia* – 3 stems	5.5 + 5 + 2
58	*Quercus agrifolia* – 5 stems	5 + 6 + 3 +3 + 3.5
59	*Quercus agrifolia*	1.5
60	*Quercus agrifolia* – 4 stems	3 + 2 + 2 + 2
61	*Quercus agrifolia* - 5 stems	5.5 + 5.5 + 4 + 4 + 3
62	*Quercus agrifolia*	7
63	*Quercus agrifolia* – 2 stems	6 + 1





Paper Size ANSI A

0 1,800

Feet

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere

N

Napa Valley College Student Housing Project

Regional Location Map

Project No. 11211361
Revision No. -
Date 06/30/2020

FIGURE 1

\\ghdnet\ghd\US\Santa Rosa\Projects\561\11211361\GIS\Maps\Working\Vicinity Map.mxd
Print date: 30 Jun 2020 - 15:38

Data source: . Created by: mremillard

Paper Size ANSI A

0 600

Feet

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere

N

GHD

Napa Valley College Student Housing Project

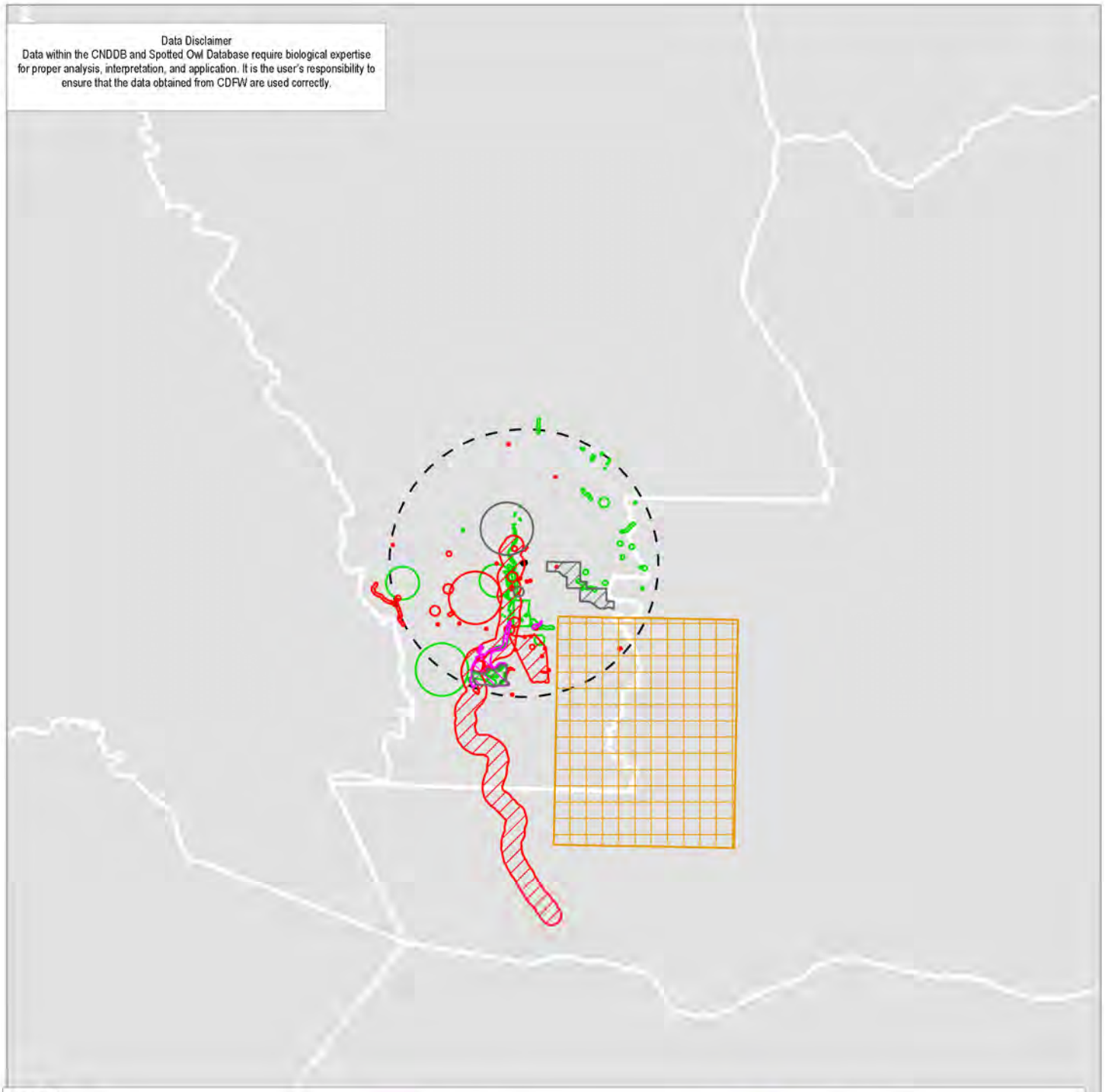
Project Area

Project No. 11211361
Revision No. -
Date 06/30/2020

FIGURE 2

\\ghdnet\ghd\US\Santa Rosa\Projects\561\11211361\GIS\Maps\Working\Project Area.mxd
Print date: 30 Jun 2020 - 15:41

Data source: . Created by: mremillard



Legend

- Stream / River
- County Boundaries
- Project Area
- 5 Mile Buffer

CNDDB

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

Paper Size ANSI A

0 1.5 3 4.5 6

Miles

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California III FIPS 0403 Feet

N

GHD

Napa Valley College
Napa Valley Student Housing

CNDDB Occurrences
5 mile radius

Project No. **11211361**
Revision No. **-**
Date **April 2020**

FIGURE 3

N:\US\Santa Rosa\Projects\66\11211361\GIS\Maps\Deliverables\11211361_Treelinventory.aprx
Print date: 17 Jul 2020 - 17:12

Data source: CNDDB, February 10th, 2020. Created by: jcrombie

Paper Size ANSI A

0 40 80 120 160

Feet

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere

N

Napa Valley College
Napa Valley Student Housing

Project No. 11211361
Revision No. -
Date August 2020

Tree Inventory

FIGURE 4

N:\US\Santa Rosa\Projects\561\11211361\GIS\Maps\Deliverables\11211361_004_TreeInventory.mxd
Print date: 12 Aug 2020 - 13:11

Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by: zporteous

Appendix E – April 16, 2020 Field Survey Report

Joslyn Curtis

April 16th, 2020

Field Survey Report

A biological reconnaissance survey and a CDFW 2018 protocol level rare plant survey were conducted on April 16th, 2020, by a GHD botanist. The biological survey aimed to identify wildlife utilization of the PSB, potential habitat for special status species, wildlife nesting/breeding habitat, and potential Sensitive Natural Communities (SNC). The biological reconnaissance survey began at about 0650 with conditions being overcast and temperatures being in the low 50 degrees Fahrenheit (°F). Special attention was paid during this time to early-morning animal activity, especially that of birds. Several mallards were seen flying over the site and many passerine species were utilizing the trees in the PSB. A pair of red-shouldered hawks were seen in a tree just outside the western edge of the Project Area. No raptor nests were seen there or in any of the trees within the Project Area. Several holes and dug-up soil was seen suggesting ground dwelling animals within the Project Area. A squirrel drey was seen in the riparian corridor to the north of the Project Area. Deer were also seen utilizing the riparian corridor and bedded down near the taller shrubs and vegetation of the Project Area. Near the northern edge of the Project Area there was a line of branch piles up from some previous vegetation trimming. While standing near these piles, rustling was heard inside them suggesting animal, likely mouse usage of these for cover. It appeared that at some point within the past 3 to 5 years a fire had occurred, at least within the northern riparian corridor as a whole patch of willows had been charred and were resprouting. Low hanging branches of the coast live oak (*Quercus agrifolia*) trees along the fringe of the riparian area were also singed. Most of the riparian corridor consisted of an inner thicket of willows with coast live oak on the edges of the corridor and an understory of Himalayan blackberry (*Rubus armeniacus*). The herbaceous grassland of the Project Area was composed of slim oats (*Avena barbata*), wildoats (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), blue wildrye (*Elymus* (*glaucus*)), Italian rye grass (*Festuca perennis*), and foxtail barley (*Hordeum murinum*). Near the west side of the Project Area, was area of shrubs which included coyote brush (*Baccharis pilularis*), California buckwheat (*Eriogonum fasciculatum*), and French broom (*Genista monspessulana*). The Project Area overall consisted of a paved, unused parking lot that has a steep incline up to a hill crest to its north. This hill then slopes down to the northern end of the Project Area where there is a riparian corridor just outside the project boundary. On the west end of the Project Area there is what looks to be a long-ago (more than10-15 years) excavated depression. Conditions of the northern creek were also assessed to determine suitability of habitat for animals that might disperse into the Project Area. Conditions of the creek were congested with vegetation and had an unconsolidated muddy bottom, with little or no gravel or cobble present, but with many roots and vegetation growing along its banks and in the water. It is unclear from the short survey how long water runs in this creek, however the lack of vegetation within its banks suggests that water is a least present for the majority of the growing season.

Focus was shifted to the rare plant survey around 1030 with transects being walked back and forth across the Project Area, with about 20 feet (ft.) between transects due to the waist high grasses covering much of the area. The area outside the fence, along the bike path, was not surveyed during this visit because it had just recently been mowed (perhaps the day before) or was in the process of being mowed (seen while the biological reconnaissance survey was being conducted). Most of the Project Area seemed to have naturalized grasses and a large component patches of native wildrye grasses. One species identified during the survey may be a special status California Rare Plant Ranked (CRPR) 1B.2 species, Bent-flowered fiddleneck (*Amsinckia lunaris*). This plant had intermediate attributed of both *A. lunaris* and *A. menziesii*. There were three location within the Project Area where the *Amsinckia* spp. occurred. The

location on the eastern end of the project area contained about 20 individuals, all flowering and a few producing immature seeds. The other two locations, one near the middle, near a patch of California poppies (*Eschscholzia californica*), and one on a little farther west, contained only one or two individuals flowering. All locations of this plant were on the lower end of the mid-slope position of the hill. A list of species that were seen in and around the Project Area was compiled during both surveys and is provided in Appendix D. Conditions evolved over the day to be sunny and temperatures in the mid 70 °F. The survey concluded around 1445.

Appendix F - April 16, 2020 On-site Species Lists

Table 11.1 On-site Species List

Scientific Name	Common Name
Mammals	
Felis catus	Domestic Cat
Lepus californicus	Black-tailed Jackrabbit
Odocoileus hemionus californicus	California Mule Deer
Sciurus griseus	Western Gray Squirrel
Birds	
Anas platyrhynchos	Mallard
Aphelocoma californica	California Scrub-jay
Buteo lineatus	Red-shouldered Hawk
Cathartes aura	Turkey Vulture
Columba livia	Rock Pigeon
Larus sp.	Gull sp.
Corvus brachyrhynchos	American Crow
Melospiza melodia	Song Sparrow
Mimus polyglottos	Northern Mockingbird
Molothrus ater	Brown-headed Cowbird
Dryobates pubescens	Downy Woodpecker
Pipilo maculatus	Spotted Towhee
Selasphorus sasin	Allen's Hummingbird
Thryomanes bewickii	Bewick's Wren
Plants	
Amsinckia (menziesii or lunaris)	Fiddleneck
Arundo donax	Giant reed
Avena barbata	Slim oat
Avena fatua	Wildoats
Baccharis pilularis	Coyote brush
Brassica sp.	Mustard
Briza minor	Little rattlesnake grass
Bromus diandrus	Ripgut brome
Bromus hordeaceus	Soft chess
Carduus pycnocephalus	Italian thistle
Carex sp.	
Conium maculatum	Poison hemlock
Convolvulaceae (Calystegia or Convolvulus)	
Cyperus eragrostis	Tall cyperus
Elymus (glaucus)	Blue wildrye
Eriogonum fasciculatum	California buckwheat
Erodium brachycarpum	White stemmed filaree
Eschscholzia californica	California poppy
Festuca perennis	Italian rye grass
Foeniculum vulgare	Fennel
Galium aparine	Common bedstraw

Genista monspessulana	French broom
Geranium dissectum	Wild geranium
Geranium purpureum	Herb robert
Helminthotheca echioides	Bristly ox-tongue
Hordeum murinum	Foxtail barley
Hypochaeris radicata	Hairy cats ear
Juglans hindsii	Northern california black walnut
Lupinus bicolor	Miniature lupine
Lysimachia arvensis	Scarlet pimpernel
Malva parviflora	Cheeseweed
Medicago polymorpha	Bur clover
Nasturtium officinale	Watercress
Persicaria sp.	smartweed
Phalaris (aquatica)	Harding grass
Plantago lanceolata	Ribwort
Prunus sp.	Stone fruit tree
Quercus agrifolia	Coast live oak
Quercus lobata	Valley oak
Raphanus sativus	Jointed charlock
Rubus armeniacus	Himalayan blackberry
Rumex (crispus)	Curly dock
Salix lasiolepis	Arroyo willow
Scandix pecten-veneris	Shepherd's needle
Sisymbrium officinale	Hedge mustard
Solanum sp.	nightshade
Sonchus asper ssp. asper	Sow thistle
Tragopogon porrifolius	Salsify
Vicia benghalensis	Purple vetch
Vicia sativa ssp. nigra	Smaller common vetch
Vicia villosa ssp. villosa	Hairy vetch

Appendix G - April 16, 2020 Field Survey Photographs

Photo 1.

Site Visit Photographs

Photo 2.

Site Visit Photographs

Photos 3.

Site Visit Photographs

Photo 4.

Site Visit Photographs

Photo 5.

Site Visit Photographs

Photo 6.

Photo 7.

Photo 8.

Site Visit Photographs

Photo 9.

Site Visit Photographs

Photo 10.

Photo 11.

Site Visit Photographs

Photo 12.

Site Visit Photographs

Photo 13.

Photo 14.

Photo 15.

Site Visit Photographs

Photo 16.

Photo 16.

Photo 17.

Photo 18.

Photo 19.

Pj

Photo 20.

Site Visit Photographs

Photo 21.

Site Visit Photographs

Appendix B Noise Assessment

NAPA VALLEY COLLEGE STUDENT HOUSING PROJECT ENVIRONMENTAL NOISE AND VIBRATION ASSESSMENT

Napa, California

July 13, 2020
Updated August 11, 2020

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GHD
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Prepared by:

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Dana M. Lodico, PE, INCE Bd. Cert.

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
429 East Cotati Avenue
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(707) 794-0400

Project: 20-074

INTRODUCTION

The project proposes to construct new student housing buildings for students, faculty, and staff on unimproved land on the Napa Campus of Napa Valley College. The project site is located at 2277 Napa-Vallejo Highway, near the campus entrance along the west side of Highway 121 and south of West Imola Avenue. The project would consist of apartments and traditional dorm-style units, study rooms, gathering spaces, a new vehicle connection and parking lot, new pedestrian connections, and new wastewater and stormwater infrastructure.

The report is divided into three sections: 1) the Setting Section provides a brief description of the fundamentals of environmental noise, summarizes applicable regulatory criteria, and discusses the results of the ambient noise monitoring survey completed to document existing noise conditions; 2) the General Plan Consistency Section discusses noise and land use compatibility utilizing policies in the City's General Plan and Municipal Code; and, 3) the Impacts and Mitigation Measures Section describes the significance criteria used to evaluate project impacts. The project was not found to result in any significant noise impacts; therefore, mitigation was not recommended.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (*frequency*) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA).* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an

average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the *sound level meter*. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level* (*CNEL*) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. - 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The *Day/Night Average Sound Level* (L_{dn} *or DNL*) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Effects of Noise

Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noises of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA DNL. Typically, the highest steady traffic noise level during the daytime is about equal to the DNL and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA DNL with open windows and 65-70 dBA DNL if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, those facing major roadways and freeways typically need special glass windows.

Fundamentals of Ground-borne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous vibration levels produce.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess ground-borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as minor cracking of building elements, or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 p.m. and 7:00 a.m.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 p.m.to 10:00 p.m. and after addition of 10 decibels to sound levels measured in the night between 10:00 p.m. and 7:00 a.m.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2013.

TABLE 3 Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings.
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential structures
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, September 2013.

Regulatory Background - Noise

The State of California and the City of Napa have established regulatory criteria that are applicable in this assessment. The State of California Environmental Quality Act (CEQA) Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. A summary of the applicable regulatory criteria is provided below.

State CEQA Guidelines. The CEQA contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would result in:

(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

(b) Generation of excessive groundborne vibration or groundborne noise levels;

(c) For a project located within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels.

2019 California Building Code, Title 24, Part 2. The current version of the California Building Code (CBC) requires interior noise levels attributable to exterior environmental noise sources to be limited to a level not exceeding 45 dBA DNL/CNEL in any habitable room.

California Collaborative for High-Performance Schools Best Practices Manual, 2009 Edition. Section EQ3.0 of the CA-CHPS Manual and Subsection A5.507.5 of Code Section 5.507 "Environmental Comfort" of the California 2016 Green Building Code contain the same standards for background noise levels and reverberation times. Because the Building Code contains greater detail on how these standards are to be applied, the standards are listed below in terms of the CA-CHPS Manual acoustical requirements:

EQ3.0. P1: Unoccupied classrooms must have a maximum background noise level of no more than 45 dBA L_{eq}. A maximum of level of 35 dBA L_{eq} is recommended.

Supplemental Annoyance and Sleep Disturbance Criteria. Though the City noise criteria are typically sufficient to achieve an acceptable interior noise environment with common environmental noise source, when dealing with loud intermittent noise sources, such as the sounding of train horns near railroad tracks or emergency vehicle sirens, the achievement of an CNEL of 45 dBA within homes may still result in maximum noise levels within interiors great enough to result in significant sleep disturbance and resident annoyance. Studies have been undertaken to determine the effect of short-term maximum noise levels on these issues. The conclusions of the studies related to the sleep disturbance typically give a probability of sleep disturbance related to the maximum noise level of the event at the sleep location and the duration of the event. A review of these data shows that limiting maximum noise levels to 55 dBA L_{max} within bedrooms will limit the probability of waking the future residents of the homes at the subject project when trains pass the site to less than five percent per occurrence[1]. Therefore, though this is not a City or State requirement, I&R recommends the adoption of additional interior sound level criteria limiting maximum noise levels from emergency vehicle sirens to 55 dBA L_{max} within bedrooms and other living spaces within the proposed residences.

City of Napa General Plan. The Health and Safety Chapter in the *Envision Napa 2020, Policy Document* sets forth policies with the goal of minimizing the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies in the City of Napa. The following policies are applicable to the proposed project:

HS-9.1 The City shall require new development to meet the exterior noise level standards set out in Table 8-1. For residential areas, these exterior noise guidelines apply to backyards; exceptions may be allowed for front yards where overriding design concerns are identified.

HS-9.2 The City shall use CEQA and the development review process to ensure that the new development does not exceed City standards.

HS-9.6 The City shall use the development and building permit review process to site new construction in ways that reduce noise levels.

HS-9.9 When feasible and appropriate, the City shall limit construction activities to that portion of the day when the number of persons occupying a potential noise impact area is lowest.

[1] Kryter Karl D., The effects of Noise on Man, Second Edition, Academic Press, Inc. London, 1985, p.444-446.

HS-9.10 The City shall encourage new development to maintain the ambient sound environment as much as possible. The City shall require new transportation-related noise sources that cause the ambient sound levels to exceed the compatibility standards in Table 8-1 to incorporate conditions or design modifications to reduce the potential increase in noise environment.

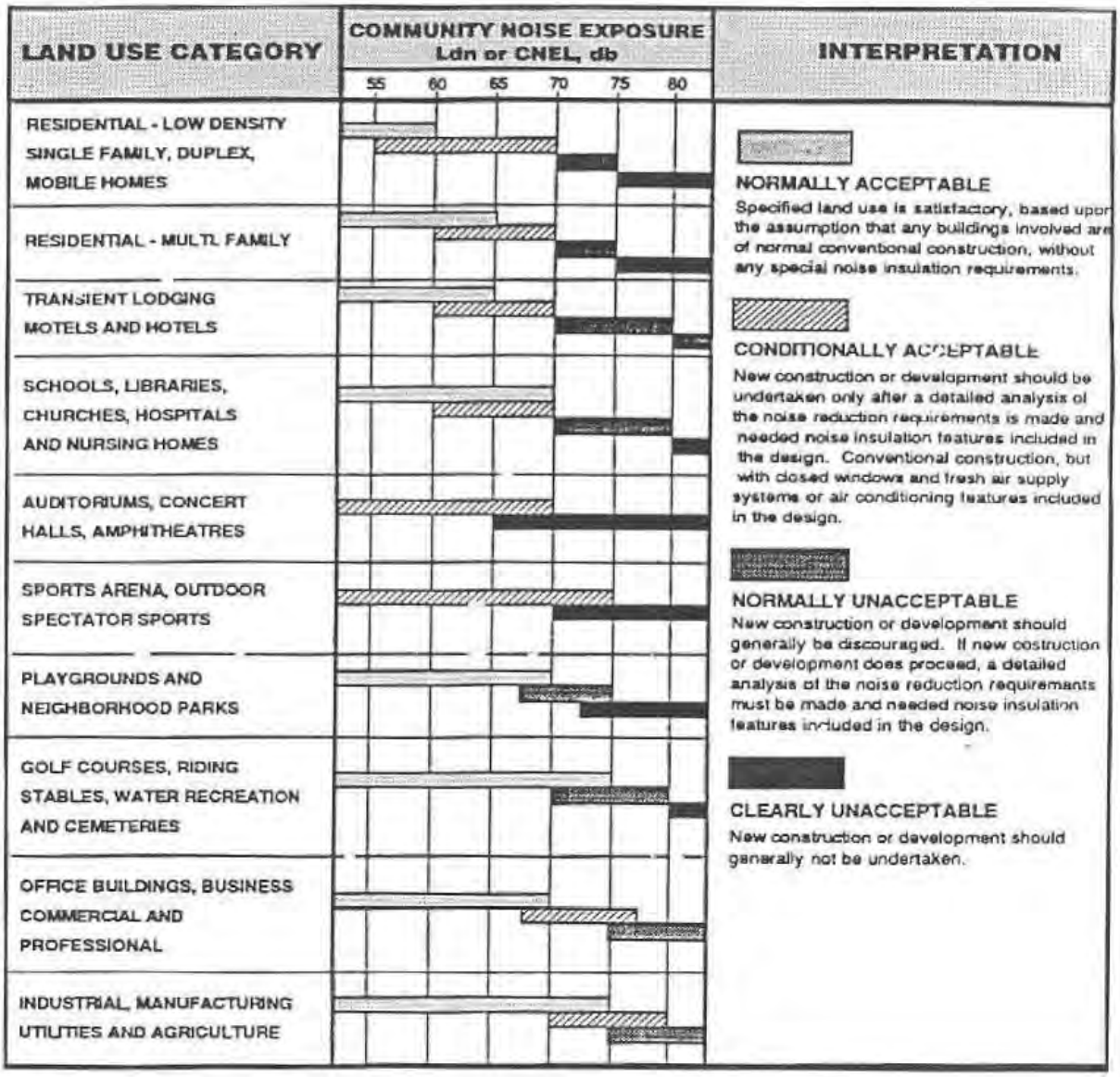
HS-9.11 The City shall regulate construction in a manner that allows efficient construction mobilization and activities, while also protecting noise sensitive land uses.

HS-9.13 The City shall require all new residential projects to provide for an interior CNEL of 45 dB or less due to exterior noise sources. To accomplish this, the City shall review all residential and other noise sensitive land uses within the 60 dB contours defined in the Table 8-2 (not shown) and Figure 8-11 (not shown) to ensure that adequate noise attenuation has been incorporated into the design of the project, or other measures are implemented to protect future sensitive receptors.

HS-9.14 The City shall encourage new development to identify alternatives to the use of sound walls to attenuate noise impacts. Appropriate techniques include site planning such as incorporating setbacks, revisions to the architectural layout such as changing building orientation to provide noise attenuation for portions of outdoor yards, and construction modifications. In the event that sound walls are the only practicable alternative, such walls should be designed to be as visually pleasing as possible, incorporating landscaping, variations in color and patterns, and/ or changes in texture or building materials.

Table 8-1

LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS



City of Napa Municipal Code. Section 17.52.310 of the Napa Municipal Code establishes the City's noise standards:

D. Development Projects. Development projects shall address noise standards and policies in the General Plan as follows:

1. Proposed residential projects and other noise sensitive land uses (such as but not limited to schools and residential care facilities) within 60 dB CNEL contours of highways, arterials and some collectors listed in the General Plan Table 8-2 (not shown) shall prepare a noise analysis as part of the project's CEQA review to identify how 60 dB CNEL noise standards will be met and incorporate needed noise attenuation measures.

3. Nonresidential projects adjacent to residential districts shall locate or design potential noise generation areas, such as, but not limited to, truck parking and loading docks, garbage collection areas, to minimize impacts on adjacent sensitive uses to the extent feasible.

Section 8.08.025 of the Napa Municipal Code regulates noise from construction activity. The applicable portion of this section states that any person engaged in construction activity … shall limit said construction activity as follows:

A. Construction activities throughout the entire duration of the project shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. There will be no startup of machines nor equipment prior to 8:00 a.m., Monday through Friday; no delivery of materials nor equipment prior to 7:30 a.m. nor past 5:00 p.m., Monday through Friday; no cleaning of machines nor equipment past 6:00 p.m., Monday through Friday; no servicing of equipment past 6:45 p.m., Monday through Friday; and construction on weekends or legal holidays shall be limited to the hours of 8:00 a.m. to 4:00 p.m., unless a permit shall first have been secured from the City Manager, or designee, pursuant to Section 8.08.050 of the code.

B. All muffler systems on construction equipment shall be properly maintained.

C. All construction equipment shall not be placed adjacent to developed areas unless said equipment is provided with acoustical shielding.

D. All construction and grading equipment shall be shut down when not actively in use.

F. As a separate, distinct, and cumulative remedy established for a violation of this section, the Police and/or the Code Enforcement Officer may issue a stop work order for violation of this section. Such order shall become effective immediately upon posting of the notice. After service of the stop work order, no person shall perform any act with respect to the subject property in violation of any of the terms of the stop work order, except such actions the city determines are reasonably necessary to render the subject property safe and/or secure until the violation has been corrected.

Existing Noise Environment

The project site is located south of West Imola Avenue (SR 121) and west of the Napa-Vallejo Highway (SR 221) in Napa, California. The area to the north of the site is primarily composed of commercial uses, including restaurants, retail, and a hotel. The area surrounding and adjacent to the site is primarily undeveloped. To the northwest, across SR 121, are commercial and residential uses, including retail, a hotel, and single and multifamily residences. To the east of the site, across SR 221, is the Napa State Hospital campus. Residences are located about 450 feet to the northeast. The area south of the project site is composed of the existing Napa Valley College campus. The Union Pacific Railroad track and the San Francisco Bay Trail are located about 630 and 710 feet to the west, respectively.

Due to the COVID-19 pandemic, a current noise monitoring survey to characterize the noise environment of the site was unable to be conducted for this study. However, measurements were

conducted by Illingworth & Rodkin, Inc. in March 2017 at a site adjacent to SR 221 and approximately 2 miles to the south of the proposed project location. Long-term noise measurement LT-1 was made approximately 115 feet from the centerline of SR 221. The noise environment at the measurement site and at nearby land uses in the vicinity resulted primarily from vehicular traffic along SR 221, local traffic, and aircraft operations associated with the Napa County Airport located to the south. Hourly average noise levels at this location ranged from 65 to 67 dBA L_{eq} during the day, and from 56 to 66 dBA L_{eq} at night. The community noise equivalent level on Wednesday, March 29, 2017 was 70 dBA CNEL. The location of measurement LT-1 relative to the Napa Valley College project site is shown in Figure 1. The daily trend in noise levels at LT-1 is shown in Figures 2 through 4.

FIGURE 1 Noise Measurement Location Relative to Project Site

Source: Google Earth, 2020

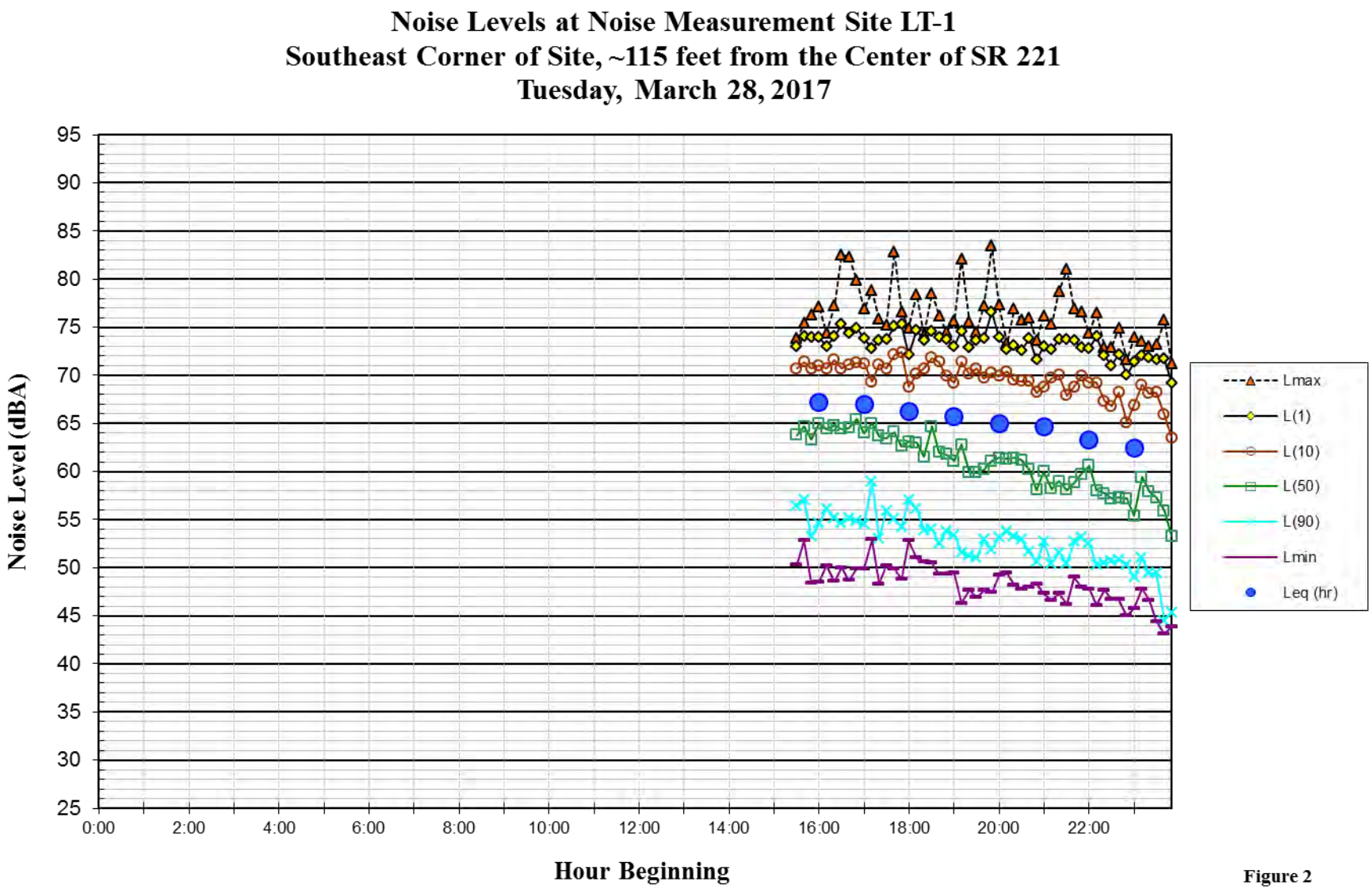
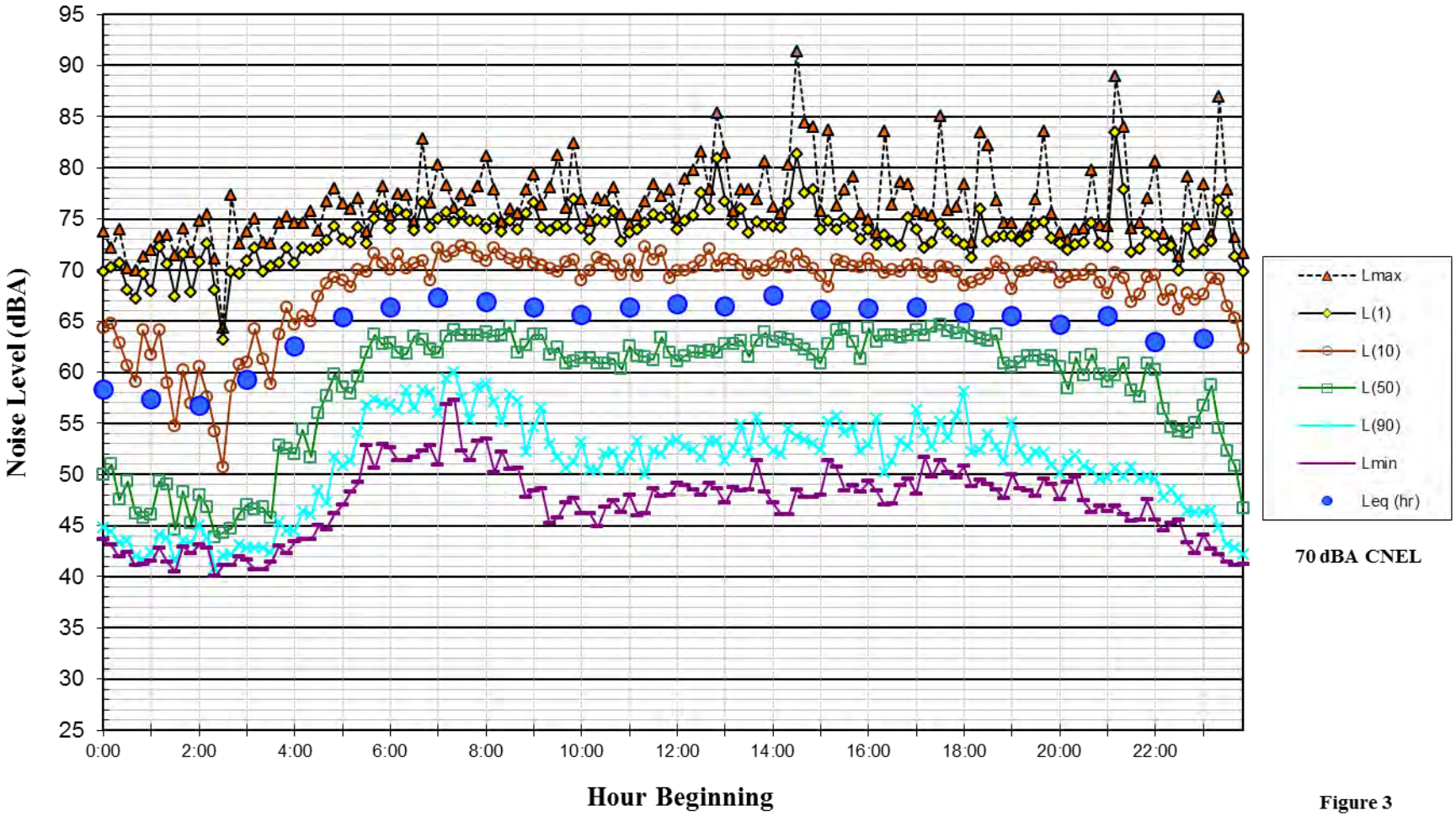

Noise Levels at Noise Measurement Site LT-1
Southeast Corner of Site, ~115 feet from the Center of SR 221
Tuesday, March 28, 2017
Noise Level (dBA)
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
Hour Beginning
Lmax
L(1)
L(10)
L(50)
L(90)
Lmin
Leq (hr)

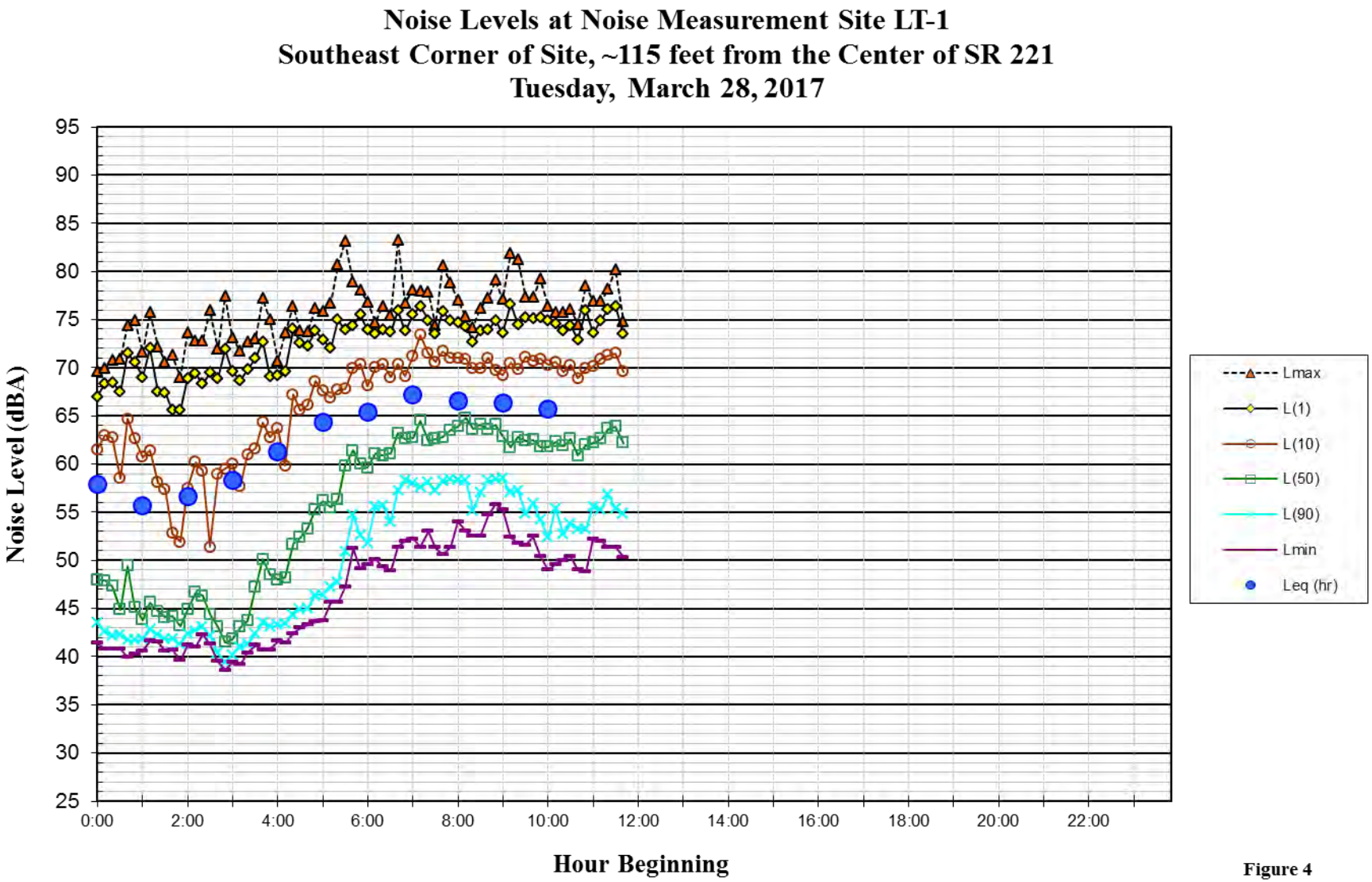
Figure 2

Noise Levels at Noise Measurement Site LT-1
Southeast Corner of Site, ~115 feet from the Center of SR 221
Wednesday, March 29, 2017



70 dBA CNEL

Figure 3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40
35
30
25
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
Hour Beginning
Lmax
L(1)
L(10)
L(50)
L(90)
Lmin
Leq (hr)

Figure 4

The City of Napa General Plan includes projected 2020 roadway noise contours for both SR 221 and SR 121/West Imola Avenue. Noise-sensitive areas are proposed as close as approximately 190 feet west of the centerline of SR 221 and approximately 450 feet south of the centerline of SR 121. At these distances, the project site would be within the 65 CNEL contour of SR 221, and outside of the 60 CNEL contour of SR 121/West Imola Avenue. These contours correlate well with the March 2017 measurement survey described above. At a distance of 115 feet from the centerline of SR 221, long-term measurement LT-1 is within the 70 CNEL noise contour.

Noise from the Napa Valley/Wine Train/Union Pacific Railroad tracks located approximately 1,000 feet west of the nearest proposed building is not anticipated to significantly contribute to the noise environment at the site. The Federal Transportation Authority's Transit Noise and Vibration Impact Assessment Manual estimates noise exposure from railroad lines at a distance of 800 feet and up to be 45 dB CNEL. The project site is located approximately 3.8 miles north of the Napa County Airport and 2.5 miles north of the 2022 55 CNEL noise contour for aircraft associated with the airport. Noise from train passbys and aircraft flyovers would be well below the noise level at the site characterized by traffic along SR221.

Based on the March 2017 measurement survey and City of Napa General Plan roadway noise contours, we can expect the noise environment of the project site to be characterized primarily by roadway traffic along SR 221, with additional roadway traffic noise from SR 121/West Imola Avenue. At approximate distances between 190 and 550 feet west of the centerline of SR 221, average noise levels at proposed site buildings are calculated to be between 60 and 67 dBA CNEL, taking into account traffic noise from SR 121.

GENERAL PLAN CONSISTENCY ANALYSIS

The impacts of site constraints such as exposure of the proposed project to excessive levels of noise and vibration are not considered under CEQA. This section addresses Noise and Land Use Compatibility for consistency with the policies set forth in the City's General Plan.

Noise and Land Use Compatibility

The applicable Napa General Plan policies were presented in detail in the Regulatory Background section and are summarized below:

- City's "normally acceptable" exterior noise level threshold for multifamily residences is 65 dBA CNEL.

- City requires that new residential projects provide for an interior noise level of 45 dBA CNEL or less due to exterior noise sources.

Future Exterior Noise Environment

The future noise environment at the project site would continue to result primarily from traffic along SR 221 and SR 121/West Imola Avenue. Existing noise levels at the site are calculated to range between 60 and 67 dBA CNEL. In a March 2015 draft environmental impact report prepared

by Caltrans for the SR 29/221 Soscol Junction Improvement Project[2], SR 221 was projected to see peak hour traffic volumes increase by 32% by the year 2039. Additionally, the City of Napa is planning to widen the section of SR 221 adjacent to the project site between Magnolia Drive and Silverado Trail from four lanes to six lanes[3]. These changes would result in a traffic noise increase of about 2 dBA CNEL over existing noise levels, bringing anticipated future noise levels at the site between 62 and 69 dBA CNEL. The noise environment throughout the site would vary depending on proximity to SR 221 and shielding provided by the proposed buildings. Noise from train passbys and aircraft flyovers, as described in the Existing Noise Environment section, are not expected to substantially contribute to the future exterior noise environment.

The site would consist of three four-story residential buildings providing a mix of apartments and traditional dorm-style units, a new vehicle connection and parking lot, and new pedestrian connections. Open space outdoor areas for residents and students include two courtyards; the Multi-Purpose Communal Space would be located in between the Residence Hall and the Apartment Building, and the Flex Building Courtyard would be located in between the Flex Building and Apartment Building. The Apartment Building and Residence Hall would shield the courtyard spaces from most direct exposure to traffic noise along SR 221. Taking shielding into account, roadway traffic noise levels at the Multi-Purpose Communal Space are anticipated to be between 51 and 56 dBA CNEL and those at the Flex Courtyard would be between 49 and 52 dBA CNEL. Noise levels at proposed outdoor use areas are anticipated to be below the City's "normally acceptable" exterior noise standard of 65 dBA CNEL.

Future Interior Noise Environment

The City's General Plan requires that residential projects implement mitigation measures such that interior noise levels do not exceed 45 dBA CNEL. The 45 dBA CNEL threshold is in line with the California Building Code which requires interior noise levels be maintained at 45 dBA CNEL or less for residences.

Interior noise levels would vary depending upon the design of the buildings (relative window area to wall area) and the selected construction materials and methods. Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA CNEL, the inclusion of adequate forced-air mechanical ventilation can reduce interior noise levels to acceptable levels by allowing occupants the option of closing the windows to control noise. Where noise levels exceed 65 to 70 dBA CNEL, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion. Attaining the necessary noise reduction from exterior to interior spaces is readily

[2] California Department of Transportation, *SR 29/221 Soscol Junction Improvement Project Environmental Impact Report/Environmental Assessment*, March 2015, https://www.nvta.ca.gov/sites/default/files/Draft-EIR-EA-Soscol-Junction-Project.pdf

[3] Napa County Transportation and Planning Agency, *Vision 2040 Moving Napa Forward*, September 16, 2015, https://www.nvta.ca.gov/sites/default/files/Vision_2040_Countywide_Plan.pdf

achievable in noise environments less than 75 dBA CNEL with proper wall construction techniques, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems. In noise environments exceeding 75 dBA CNEL, the construction materials and techniques, including smaller window and door sizes as a percentage of the total building façade facing the noise source, are necessary to reduce interior noise levels to acceptable levels and are considerably more expensive.

Future noise exposures along building façades will depend on the distance from and area of exposure to SR 221. The highest exterior noise levels are expected along the eastern façades of the Residence Hall and Apartment Building, where noise levels are anticipated to reach 69 dBA CNEL. Exterior noise levels along the southern façade of the Residence Hall are anticipated to be between 64 and 66 dBA CNEL. Exterior noise levels along the northern façade of the Apartment Building are anticipated to be between 63 and 66 dBA CNEL. Noise levels along all other façades of proposed buildings are anticipated to be below 65 dBA CNEL. Exterior elevations dated June 5, 2020 indicate exterior wall construction would consist of a variety of materials including cement plaster, wood siding, and metal panels. Assuming a credible worst-case analysis with wood siding (STC 39), closed windows, and a window to wall ratio of 40%, an exterior-to-interior noise reduction of approximately 25 dBA would be expected. Greater noise reductions would be expected along areas of façades with a lower window to wall ratio or where exterior façades feature cement plaster instead of wood siding.

Applying the minimum expected noise reduction of 25 dBA, noise levels attributable to exterior sources would not exceed 44 dBA CNEL in any rooms of the proposed buildings when windows remain closed. A schematic design submittal dated June 5, 2020 indicates that all proposed buildings will be provided with a forced air mechanical ventilation system which would allow for windows to be closed at the occupants' discretion. Future interior noise levels would be compatible with General Plan and California Building Code standards.

NOISE IMPACTS AND MITIGATION MEASURES

Significance Criteria

The following criteria were used to evaluate the significance of environmental noise resulting from the project:

1. **Temporary or Permanent Noise Increases in Excess of Established Standards:** A significant impact would be identified in the following cases:

    a. Operational Noise in Excess of Standards. A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or Municipal Code.

    b. Permanent Noise Increase. A significant impact would be identified if traffic generated by the project or project improvements/operations would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if: a) the noise level increase is 5 dBA CNEL or greater, with a future noise level of less than 60 dBA CNEL, or b) the noise level increase is 3 dBA CNEL or greater, with a future noise level of 60 dBA CNEL or greater.

    c. Temporary Noise Increase. A significant noise impact would be identified if construction-related noise would exceed applicable noise standards presented in the General Plan or Municipal Code.

2. **Generation of Excessive Groundborne Vibration:** A significant impact would be identified if the construction of the project would expose persons to excessive vibration levels. Ground-borne vibration levels exceeding the levels shown in Table 3 would have the potential to result in cosmetic damage to normal buildings.

3. **Excessive Aircraft Noise.** A significant noise impact would be identified if the project would expose people residing or working in the project area to excessive aircraft noise levels.

Impact 1: **Temporary or Permanent Noise Increases in Excess of Established Standards.** The proposed project would not generate noise levels in excess of the standards established in the City's Municipal Code at nearby sensitive receptors. **This is a less than significant impact.**

a. Permanent Noise from On-Site Operations

Operational noise sources proposed with the Project include mechanical equipment, parking, and activities in outdoor courtyard areas. The Napa General Plan establishes 65 dBA CNEL as the "normally acceptable" noise exposure level for residential land uses and 70 dBA CNEL as the "normally acceptable" noise exposure level for hospital and school uses.

The proposed project would include mechanical equipment, such as heating, ventilation, and air conditioning systems. Information regarding the number, type, and size of the mechanical equipment units to be used in the proposed project was not available at the time of this study. Typically, mechanical equipment used for multi-family residential buildings would be anticipated to generate noise levels in the range of 50 to 60 dBA at a distance of 50 feet from the equipment, depending on the equipment selected. Equipment located inside or in a fully enclosed room with a roof would not be anticipated to be audible at off-site locations.

Assuming 24-hour per day operations, mechanical equipment producing hourly average noise levels of 58 dBA L_{eq} would produce a CNEL noise level of 65 dBA CNEL. Therefore, in order to maintain noise levels at or below 65 dBA CNEL (the "normally acceptable" noise exposure level for residential land uses), project mechanical equipment should not produce noise levels exceeding 58 dBA L_{eq} at nearest residential property lines. In order to maintain noise levels at or below 70 dBA CNEL (the "normally acceptable" noise exposure level for hospital and school land uses), project mechanical equipment should not produce noise levels exceeding 63 dBA L_{eq} at the nearest hospital or school property line.

Assuming a credible worst-case analysis, with mechanical equipment generating a noise level of 60 dBA L_{eq} at 50 feet, mechanical equipment noise at the nearest residence, located approximately 650 feet southeast of the site along Magnolia Drive, would be 38 dBA L_{eq}, not taking shielding into account. At the nearest non-residential sensitive use, a Napa State Hospital building located approximately 400 feet to the east, unshielded equipment would generate a noise level of 42 dBA L_{eq}. At the Napa Valley College Performing Arts Center, located approximately 480 feet south of the project site, the noise level would be 40 dBA L_{eq}. Mechanical equipment is not anticipated to result in noise levels exceeding 60 dBA CNEL at residential uses or 70 dBA CNEL at non-residential uses and would likely not be audible above ambient levels.

The California Collaborative for High-Performance Schools (CHPS) Best Practices Manual, 2009 Edition sets a standard of 45 dBA L_{eq} for the maximum background noise level in unoccupied classrooms. Assuming a 20 dBA reduction of exterior-to-interior noise, mechanical equipment originating from the project site would have to exceed 65 dBA L_{eq} at the exterior of the classroom façade to exceed the CHPS standard at existing Napa Valley College classrooms. Again, mechanical equipment would be anticipated to be 40 dBA L_{eq} or less at the exterior of the classrooms and would not exceed the CHPS standard.

The site currently contains a parking lot for use by Napa Valley College students and faculty. The new parking lot, to be located on the west side of the project site, would increase the amount of parking at the site from about 150 spaces to 226 spaces. This increase in spaces would be offset by the shifting the parking lot to the west, further from receptors, and by the partial shielding of the parking lot by proposed site buildings. As a result, proposed parking would not result in a substantial increase over the existing parking lot noise.

The Multi-purpose Communal Space and Flex Courtyard are located 400 feet or greater from nearby noise sensitive land uses and are well shielded by the proposed site buildings. As a result, use of these facilities are not anticipated to result in substantial noise levels at nearby receptors.

Noise from on-site operations would have a **less-than-significant impact**.

b. Permanent Noise Increases from Project Traffic

A significant noise impact would occur if traffic generated by the project would substantially increase noise levels at sensitive receptors in the project vicinity. A substantial increase would occur if: a) the noise level increase is 5 dBA CNEL or greater, with a future noise level of less than 60 dBA CNEL, or b) the noise level increase is 3 dBA CNEL or greater, with a future noise level of 60 dBA CNEL or greater. For reference, traffic volumes would have to double for noise levels to increase by 3 dBA CNEL and triple for noise levels to increase by 5 dBA CNEL.

An increase in traffic noise of 3 dBA CNEL would require a doubling of traffic volume along a roadway segment. W-Trans Traffic Engineering Consultants determined that the project would result in a decrease in vehicle miles traveled. Given this, and that traffic noise in the project vicinity is characterized primarily by activity on SR 221, which is anticipated to increase by 2 dBA by 2039 in the absence of the project, it can be assumed that the project will not result in a traffic noise increase of 3 dBA CNEL or greater. This is a **less-than-significant** impact.

c. Temporary Noise Increases from Project Construction

Section 8.08.025 of the Napa Municipal Code regulates noise from construction activity. Construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, with no startup of machines nor equipment prior to 8:00 a.m., no delivery of materials nor equipment prior to 7:30 a.m. nor past 5:00 p.m., no cleaning of machines nor equipment past 6:00 p.m., and no servicing of equipment past 6:45 p.m. Construction on weekends and legal holidays is limited to the hours of 8:00 a.m. to 4:00 p.m. Additionally, construction noise reduction measures are provided.

Construction activities for individual projects are typically carried out in stages. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. Typical construction noise levels at a distance of 50 feet are shown in Tables 4 and 5. Table 4 shows the average noise level ranges by construction phase, and Table 5 shows the maximum noise level ranges for different construction equipment.

Project construction is expected to begin in the summer of 2021 and last approximately 20 months. Construction would take place within the hours defined in section 8.08.025 of the Napa Municipal Code as described above. Specific information on number of and type of construction equipment to be used per phase was not available. Impact pile driving is not proposed as a method of construction.

Using typical construction noise levels for domestic housing as shown in Table 4, noise from construction may reach up to 88 dBA L_{eq} at a distance of 50 feet. The nearest residence to the site is located approximately 650 feet southeast of the site along Magnolia Drive. At this distance, construction noise levels may reach up to 63 to 66 dBA L_{eq} during busy periods of construction when multiple pieces of equipment are in operation. Noise levels at the nearest non-residential use,

a Napa State Hospital building located approximately 400 feet to the east along SR 221 may reach up to 66 to 70 dBA L_{eq} during busy periods of construction when multiple pieces of equipment are in operation.

Existing noise at the nearest receptors would be characterized primarily by traffic along SR 221. Following this and based on the City of Napa General Plan's roadway noise contours, at their respective distances from SR 221, the nearest residence is exposed to existing traffic noise levels of approximately 66 dBA CNEL, and the Napa State Hospital building to existing traffic noise levels of approximately 69 dBA CNEL. Assuming that all construction activities for the proposed project are conducted in accordance with Section 8.08.025 of the Napa Municipal Code, noise generated by construction activities would not exceed 5 dBA over the ambient and would not be in excess of the established standards. This would be a **less-than-significant impac**t.

TABLE 4 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		**Office Building, Hotel, Hospital, School, Public Works**		**Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station**		**Public Works Roads & Highways, Sewers, and Trenches**	
	I	**II**	**I**	**II**	**I**	**II**	**I**	**II**
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

TABLE 5 Construction Equipment 50-foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes:

1 Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

2 Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

3 Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Source: Mitigation of Nighttime Construction Noise, Vibrations and Other Nuisances, National Cooperative Highway Research Program, 1999.

Mitigation Measure 1: **None required**.

Impact 2: **Generation of Excessive Groundborne Vibration due to Construction.** Construction-related vibration levels are not anticipated to result in cosmetic or structural damage to structures in the vicinity. This is a **less-than-significant impact**.

The City of Napa does not specify a construction vibration limit. For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for new residential and modern commercial/industrial structures, 0.3 in/sec PPV for older residential structures, and a limit of 0.25 in/sec PPV for historic and some old buildings (see Table 3).

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include site demolition, preparation work, foundation work, and new building framing and finishing. Pile driving, which can cause excessive levels of vibration, is not anticipated as a method of construction. Table 6 presents typical vibration levels that could be expected from construction equipment at a reference distance of 25 feet and calculated levels at other distances representative of sensitive receptors in the vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

TABLE 6 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	PPV at 400 ft. (in/sec)	PPV at 480 ft. (in/sec)	PPV at 550 ft. (in/sec)
Clam shovel drop		0.202	0.010	0.008	0.007
Hydromill (slurry wall)	in soil	0.008	0.000	0.000	0.000
	in rock	0.017	0.001	0.001	0.001
Vibratory Roller		0.210	0.010	0.008	0.007
Hoe Ram		0.089	0.004	0.003	0.003
Large bulldozer		0.089	0.004	0.003	0.003
Caisson drilling		0.089	0.004	0.003	0.003
Loaded trucks		0.076	0.004	0.003	0.003
Jackhammer		0.035	0.002	0.001	0.001
Small bulldozer		0.003	0.000	0.000	0.000

[1] Impact pile driving is not proposed as a method of construction.

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, September 2018 as modified by Illingworth & Rodkin, Inc., May 2020.

As indicated above in Table 5, vibration levels as a result of project construction would not exceed any limits recommended by Caltrans at the nearest structures. This is a **less-than-significant** impact.

Mitigation Measure 2: **None required.**

Impact 3: **Excessive Aircraft Noise Levels.** The proposed project would be located more than two miles outside of all projected future aircraft noise contours. Residents would not be exposed to excessive aircraft noise. **No impact**.

Napa County Airport is located approximately 3.8 miles south of the project site. The January 2008 Napa County Airport Master Plan Draft Environmental Assessment contains projected future aircraft noise contours for the year 2022. The project site would be located approximately 2.5 miles north of the 55 CNEL contour. There would not be excessive levels of aircraft noise at the site.

Mitigation Measure 3: **None required**