CEQA INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

NAPA VALLEY VINE TRAIL PROJECT

NAPA, CALIFORNIA

Prepared for:

Napa County Transportation and Planning Agency/
Napa Valley Transportation Authority
625 Burnell Street
Napa, California 94559

Prepared by:

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LSA Project No.RSA1303

LSA

January 2015

MITIGATED NEGATIVE DECLARATION

Project Name. Napa Valley Vine Trail Project – Oak Knoll District

Project Location. The project site extends from the Napa Valley Wine Train right-of-way to Solano Avenue, just south of Redwood Road in the City of Napa to California Drive in the Town of Yountville in Napa County, California (Figures 1 and 2). The proposed path would be located west of and run parallel to State Highway 29.

Project Description. The Napa County Transportation & Planning Agency (NCTPA) proposes to construct a new 6-mile section of the Napa Valley Vine Trail (Vine Trail) between Napa and Yountville. The project, the Vine Trail's Oak Knoll District, would connect two existing segments of the Vine Trail, the Commuter Bike Path in Napa and the Yountville Mile. The proposed Class I bicycle/pedestrian path would be located between the Napa Valley Wine Train right-of-way and Solano Avenue, all within public right-of-way. The path would be constructed in accordance with local, State, and federal requirements and will be an asphalt concrete path 10 feet in width with 2-foot shoulders. Prefabricated truss bridges would be needed to span two manmade drainage channels and modifications made to the existing Solano Avenue bridge to span Dry Creek. Proposed improvements include: ADA compliance curb ramps, two traffic signals, stop signs, fencing, and pavement markings.

Findings. It is hereby determined that, based on the information contained in the attached Initial Study, the project would not have a significant adverse effect on the environment.

Mitigation measures, necessary to avoid potentially significant effects on the environment, are included in the attached Initial Study, which is hereby incorporated and fully made part of this Mitigated Negative Declaration. The Napa County Transportation & Planning Agency has hereby agreed to implement each of the identified mitigation measures, which would be adopted as part of the Mitigation Monitoring and Reporting Program.

1/13/15
Date

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1. **Project title:**
   Napa Valley Vine Trail Project – Oak Knoll District

2. **Lead agency name and address:**
   Napa County Transportation & Planning Agency
   625 Burnell Street
   Napa, CA 94559

3. **Contact person and phone number:**
   Herb Fredricksen, Manager of Engineering
   (707) 259-5951

4. **Project location:**
   The project site extends from the Napa Valley Wine Train right-of-way to Solano Avenue, just south of Redwood Road in the City of Napa to California Lane in the Town of Yountville in Napa County, California (Figures 1 and 2). The proposed path would be located west of and run parallel to State Highway 29.

5. **Project sponsor's name and address:**
   Napa County Transportation & Planning Agency
   625 Burnell Street
   Napa, CA 94559

6. **General plan designation:**
   Napa County: Agricultural Resource, Cities

   City of Napa: Single Family Infill (SFI-1, SFI-6, SFI-10), Multifamily Residential (MFR-11, MFR-14), Single Family Residential (SFR-2), Tourist Commercial (TC-401, TC-402), Local Commercial (LC-400), Public Serving (PS-801)

   Town of Yountville: Public Facilities

7. **Zoning:**
   Napa County: AP (Agricultural Preserve), AW (Agricultural Watershed), CL (Commercial Limited)

   City of Napa: Single-Family Infill (RI-4, RI-5); Single Family Residential (RS-5); Multifamily Residential (MR); Local Commercial (CL); Tourist Commercial (CT); Public, Quasi-Public Schools, and Health Facilities (PQ)

   Town of Yountville: Public Facilities

8. **Description of project:**
   The Vine Trail Oak Knoll District Project (proposed project) is a 6-mile Class I bicycle/pedestrian trail within the public right-of-way from south of Redwood Road in the City of Napa (City) to the Town of Yountville (Figure 3). The project would connect two existing segments of the Vine Trail, the Commuter Bike Path in Napa and the Yountville Mile.

Connecting these two existing Class I paths would create an 8.6-mile bike trail and provide a readily accessible safe walking and biking path for 60 percent of Napa County's population. The proposed project would encourage alternative modes of transportation (e.g., bicycling, walking), thereby reducing the use of motorized vehicles resulting in a beneficial effect on the environment.

The path would be located between the Napa Valley Wine Train right-of-way and Solano Avenue, predominantly within public right-of-way. The path is west of and runs parallel to State Highway 29. The project would connect Park and Ride facilities in the City of Napa and Town of Yountville. The path would cross seven local streets and roads and all safety improvements and signing would conform to local and California Manual on Uniform Traffic Control Devices (California MUTCD) standards.

The proposed trail alignment would consist primarily of a 10-foot wide paved path, and 2-foot wide shoulders for a total width of 14 feet. Disturbed areas would extend beyond the edges of the path at a 2:1 maximum slope in order to conform to existing grade and provide minimal alteration of existing drainage conditions. Where constrained by property lines, easements or a change in grade such that a built up slope is not feasible, short retaining structures would be built, typically in locations where the east edge of the trail would align horizontally within an existing drainage feature. The proposed trail would cross three (3) separate drainage channels (Yountville Collector, Dry Creek and Salvador Channel). Trees would be removed with mitigated plantings within the project limits.

Construction of the proposed project would result in approximately 15,000 cubic yards of off-haul for disposal (1,000 cubic yards from the Town of Yountville, 8,500 cubic yards from Napa County, and 5,500 cubic yards from the City of Napa). Off-haul would be stockpiled, stabilized and covered in a pre-determined location within the project boundary, or removed from the site after grading and excavation activities are completed.

Staging areas would be finalized in coordination with the construction contractor. Potential staging areas to be considered include a wide gravel area to the south of Trower Avenue, and the Park and Ride location at California Avenue in the Town of Yountville. After completion of construction activities, staging areas would be returned to their previous condition or improved.

Construction access would primarily occur via established access routes used for maintenance of the drainage channels and the railroad. These access points are located at the intersections of Solano Avenue with its cross streets. Active access points would vary with the portion of the trail under construction. The access points would continue to be used for trail maintenance activities after completion of construction activities.

Existing underground utilities would remain in place, including gas and water pipelines and fiber-optic cables. Utility poles and overhead utility lines that would conflict with the proposed project would be relocated in coordination with the utility provider prior to construction of the proposed trail. Where needed, inlets or other means would be provided to convey stormwater into existing stormdrain systems and channels with minimal alteration to the existing drainage system.

No detours are anticipated for this project. Streets and roads affected by trail construction would be appropriately signed with temporary traffic control measures per Caltrans standards and the California MUTCD. After completion of the proposed trail and associated intersection improvements, temporary signage and traffic control measures would be removed.

Two drainage channels are located parallel to the proposed trail alignment: the Yountville Collector in unincorporated Napa County and the Salvador Collector in the City of Napa. The only work within these channels would include replacement of the existing culvert south of Wine Country Avenue. The proposed trail alignment would cross these channels south of Hoffman Lane and south of Wine Country Avenue. Proposed crossings would consist of pre-fabricated steel truss bridges with cast-in-drilled-hole piles located outside the top of bank to completely span the channels without impacting their beds or banks. Bridge elevation (bottom of deck) would be designed above the 100-year floodplain[1] to avoid impacting existing flows within the channels. To cross Dry Creek, the NCTPA proposes to widen the existing Solano Avenue bridge.

A detailed description of each trail segment by station number is provided below.

California Drive from Terminus of Yountville Mile to Station 0+00 (California Drive Overpass Area). To accommodate the proposed path, widening of the existing sidewalk and street crossings along California Drive would be conducted to connect the proposed trail to the Yountville Mile. Work in this area would include demolition of the existing curb, gutter, and sidewalk and installation of a new curb, gutter and sidewalk to increase the overall width of the walkway on the north side of California Drive from 10 to 14 feet. New curb ramps would be installed and crosswalks would be restriped, as needed.

Stations 0+00 to 16+00 – California Drive to Southern Limit of Yountville (1,600 feet). The trail in this segment would require approximately 1,500 feet of retaining wall along its eastern side, parallel to the existing Wine Train right-of-way. The wall is not anticipated to exceed 5 feet in height. Along the western edge of the trail, a curb is proposed to provide a barrier between automobile and bicycle traffic. Re-striping and additional paving along the western edge of Solano Avenue would be necessary to accommodate the trail and buffer zone. Approximately seven (7) trees of varying species and size would be removed in this segment to accommodate the proposed alignment. The disturbed area for this segment would be approximately 30,400 square feet (sf).

Stations 16+00 to 112+00 – Southern Limit of Yountville to Hillview Lane (9,600 feet). The trail in this segment would be located between the Wine Train right-of-way to the east and the Yountville Collector stormwater channel to the west. No permanent structures or grading would occur within 5 feet of the top of the channel bank. The trail crosses Hoffman Lane around Station 52+00. Two single-span bridges are proposed across the Yountville Collector from Stations 63+00 to 64+00. Approximately 30 trees of varying species and size would be

[1] The southernmost bridge over the Salvador Channel would be designed above the 100-year floodplain. The widening across Dry Creek would be at the same elevation as the existing bridge. No base flood elevations are mapped by the Federal Emergency Management Agency at this location. For the northernmost bridge at Hinman Creek, the bridge deck would be constructed one-foot higher than the existing railroad bridge deck to the east, well above the 100-year floodplain.

removed to accommodate the proposed alignment. The disturbed area would be approximately 134,400 sf.

Stations 112+00 to 132+00 – Hillview Lane to Darms Lane (2,000 feet). This segment would be located directly adjacent to Solano Avenue and a buffer strip approximately 5 feet wide would be provided to separate automobile and bicycle traffic. A row of approximately 23 large eucalyptus (*Eucalyptus* sp.) trees north of the Washington Street Connector (Station 127+00), several of which are diseased, would likely need to be removed to accommodate the proposed trail,. The disturbed area for this segment would be approximately 38,000 sf.

Stations 133+00 to 134+00 – Darms Lane/Dry Creek. The trail would cross Dry Creek at Darms Lane by widening the existing Solano Avenue bridge by approximately 2 feet to accommodate the required automobile lane shifting. The bridge widening would be accomplished by removing and replacing a portion of the bridge exterior barrier walls for a net increase in width of 2 feet to accommodate a reduced path width of 5 feet at this location. All work would be conducted from the existing bridge deck. The addition of concrete would not require the extension of any existing bridge piers and no work would impact or occur in the channel or bed of Dry Creek.

Stations 134+00 to 181+00 – Darms Lane to Oak Knoll Avenue (4,700 feet). South of Dry Creek, the trail alignment would be located between the Wine Train right-of-way to the east and Solano Ditch, a concrete drainage ditch to the west. Approximately 17 trees of varying species and size would need to be removed in this segment. The disturbed area would be approximately 65,800 sf.

Stations 181+00 to 219+00 – Oak Knoll Avenue to Luke Drive (3,800 feet). This segment would be located directly adjacent to Solano Avenue and a safety buffer strip approximately 5 feet wide would be provided to separate automobile and bicycle traffic. A curb and gutter would be installed between the buffer and Solano Avenue to capture stormwater runoff and convey it into the existing storm drain system on the western side of Solano Avenue. On the east side of the trail, existing grade elevations would require installation of a short retaining wall to stabilize the eastern edge of the trail. The proposed retaining wall would extend from Station 183+00 to 218+51. Approximately 14 trees, mostly non-native, would need to be removed in this segment. The disturbed area for this segment would be approximately 72,200 sf.

Stations 219+00 to 274+00 – Luke Drive to Trower Avenue (5,500 feet). The trail in this segment would run between the Wine Train right-of-way to the east and the Salvador Collector stormwater channel to the west. Several trees would likely need to be removed. At Wine Country Avenue, an existing box culvert would be extended to the south to accommodate the additional width of the trail at this intersection. An existing 155-sf concrete outfall apron south of the culvert would be removed and replaced with a culvert section of the same footprint. No temporary or permanent fill of the channel is expected. Two single-span bridges are proposed across the Salvador Collector south of Wine Country Avenue from Stations 260+00 to 261+00. Approximately nine (9) trees, including five valley oaks, would need to be removed in this segment. The disturbed area for this segment would be approximately 77,000 sf.

Stations 274+00 to 300+00 – Trower Avenue to Park and Ride at Redwood Road (3,100 feet). This segment would be located directly adjacent to Solano Avenue and a buffer strip approximately 5 feet wide would be provided to separate automobile and bicycle traffic. A short retaining wall would extend from Station 287+68 to 305+84. A curb and gutter would be installed between the buffer and Solano Avenue to capture stormwater runoff and convey it into the existing storm drain system on the western side of Solano Avenue. Several large trees immediately south of Trower Avenue, including three cottonwoods, may need to be removed. The disturbed area for this segment would be approximately 58,900 sf.

Stations 305+00 to 315+00 – Eastern Edge of Park and Ride at Redwood Road (1,000 feet). The last 1,000 feet of the trail would be constructed along the eastern edge of the existing Park and Ride facility at Redwood Road within the Wine Train right-of-way. The disturbed area at this location would be approximately 14,000 sf.

9. Surrounding land uses and setting:

The project site extends from the Napa Valley Wine Train right-of-way to Solano Avenue, just south of Redwood Road in the City of Napa to California Lane in the Town of Yountville in Napa County, California. The proposed path would be located west of and run parallel to State Highway 29. Surrounding land uses include agricultural lands within unincorporated Napa County and developed lands within the City of Napa. In Napa County and the Town of Yountville, adjacent land uses include vacant land, agricultural uses, rural residential development, vineyard/winery, golf course, and fire station. Adjacent land uses in the City of Napa include: single family and multifamily (apartments) residential uses; mobile home park; light industrial/warehouse uses; commercial development; motel/hotel; and a high school.

Topography along the project corridor is generally flat with a gentle slope eastward. The elevation profile along the project alignment varies slightly from approximately 70 to 105 feet above mean sea level (amsl), with an average elevation of approximately 95 feet amsl. Two drainage channels used for conveying stormwater runoff and seasonal flows are located parallel to and east of Solano Avenue. The Yountville Collector, in the northern portion of the proposed alignment, stretches approximately 1.7 miles from Vineyard Drive to Hillview Lane. The Salvador Collector runs approximately 1.0 mile from Luke Drive to Trower Avenue in the City of Napa. Both drainage channels along with Hinman Creek and Dry Creek, tributaries to the Napa River, flow east before discharging into the Napa River. Approximately 2 miles of the path is located within a Federal Emergency Management Agency (FEMA)-designated floodplain.

Vegetation communities within the project site include non-native annual grassland, creeping ryegrass turfs/native grassland, non-native woodland, deciduous oak woodland, riparian woodland, and freshwater wetlands. The project area also contains developed and landscaped areas. Developed areas consist of pavement, gravel, bare ground, railroad tracks or other features constructed by humans. Landscaped areas are dominated by ornamental tree plantings and are primarily associated with the southern end of the alignment within the Napa city limits. The project alignment is located within a predominantly rural agricultural setting between State Route 29 (SR 29) and Solano Avenue and is highly disturbed. Native oak trees are present throughout the project area, occurring primarily as widely spaced individuals rather than woodland stands. Several valley oaks are very large and likely constitute remnants of the

extensive valley oak savannah that historically covered the Napa Valley floor. Native oak woodland stands are often mixed with a variety of non-native escaped ornamental trees and the understory is dominated by annual grasses or dense patches of ruderal forbs.

10. **Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):**

- U.S. Army Corps of Engineers
- California Department of Fish and Wildlife
- San Francisco Bay Regional Water Quality Control Board
- California Department of Transportation (Caltrans)
- City of Napa
- Town of Yountville
- Napa County
- Napa County Flood Control and Water Conservation District

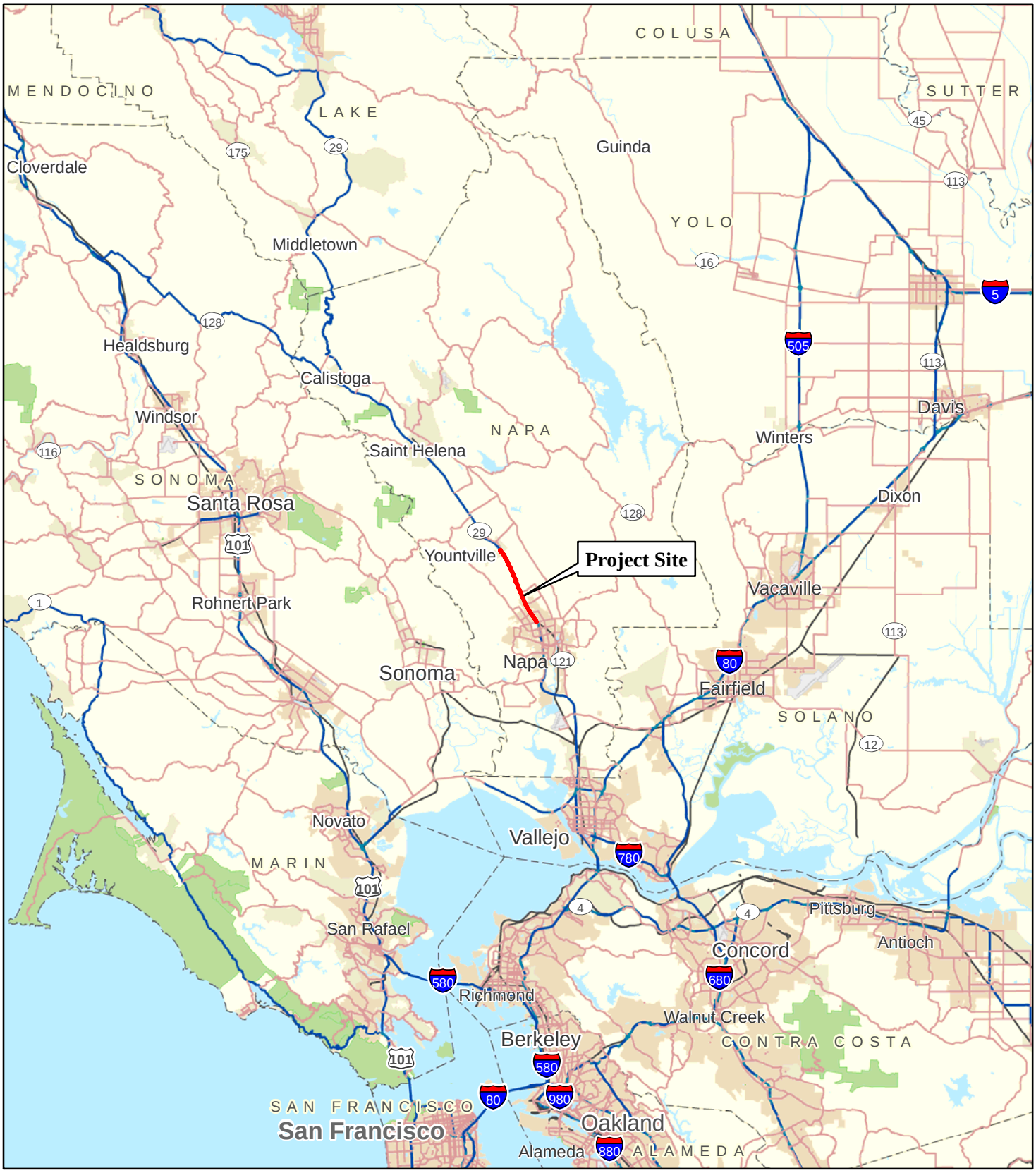

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FIGURE 1

0 5 10
MILES

SOURCE: StreetMap North America (2009)

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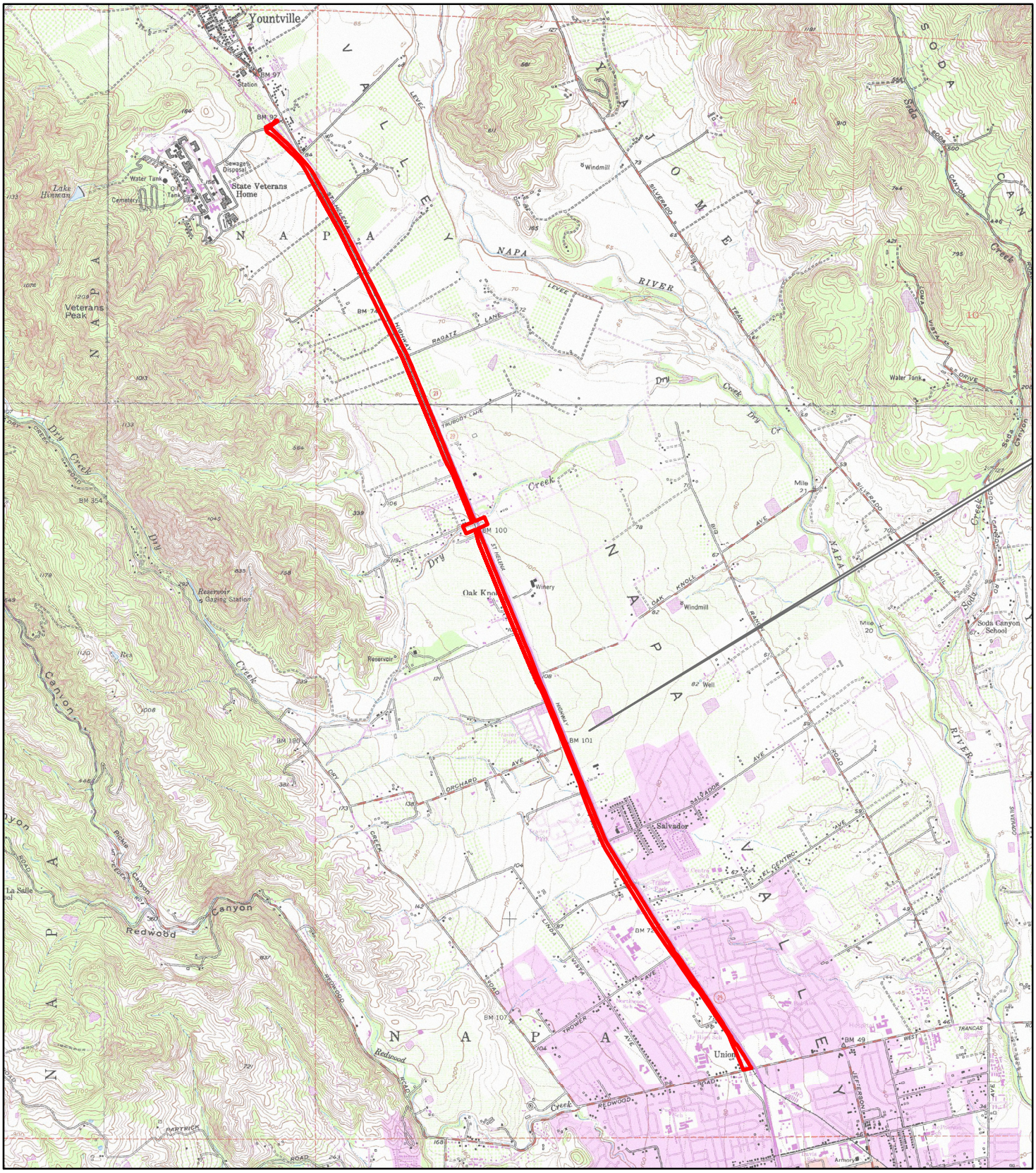
Napa Valley Vine Trail Project
Napa County, California

Regional Location



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LEGEND

Project Site

FIGURE 2

0 2000 4000

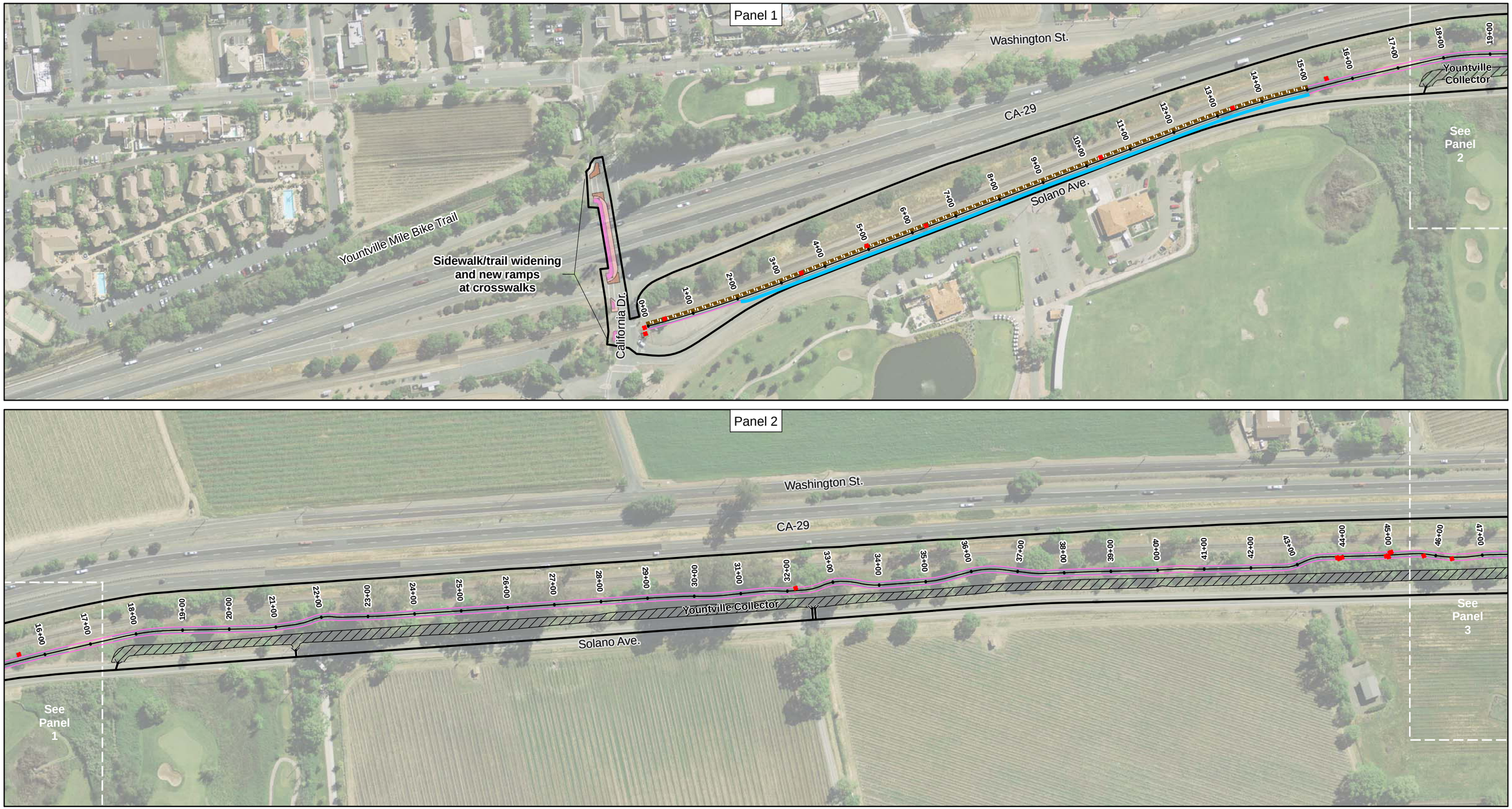
FEET

Napa Valley Vine Trail Project
Napa County, California

Site Location

SOURCE: USGS 7.5-minute Topo Quads - *Rutherford, Calif.* (1968), *Yountville, Calif.* (1968), *Sonoma, Calif.* (1980), *Napa, Calif.* (1980).

I:\RSA1303\GIS\Maps\IS-MND\Figure 2_Site Location.mxd (11/11/2014)



LEGEND

- Project Site
- Trail Shoulder
- New Retaining Wall
- New Curb and Gutter
- Tree to be Removed
- Wetland or Other Waters
- Jurisdictional Culvert

0 100 200
FEET

SOURCE: RSA (10/2014); USGS Orthoimagery (04/2011).

I:\RSA1303\GIS\Maps\IS-MND\Figure 3A_Proposed Project.mxd (11/11/2014)

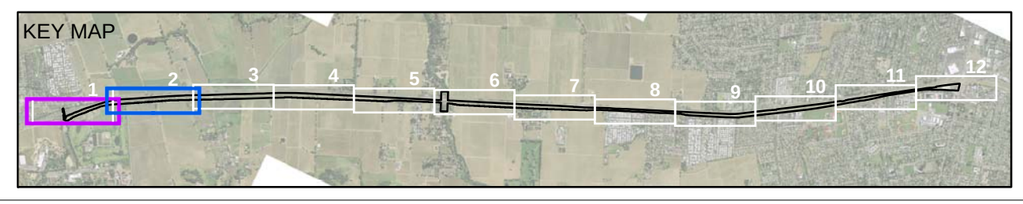
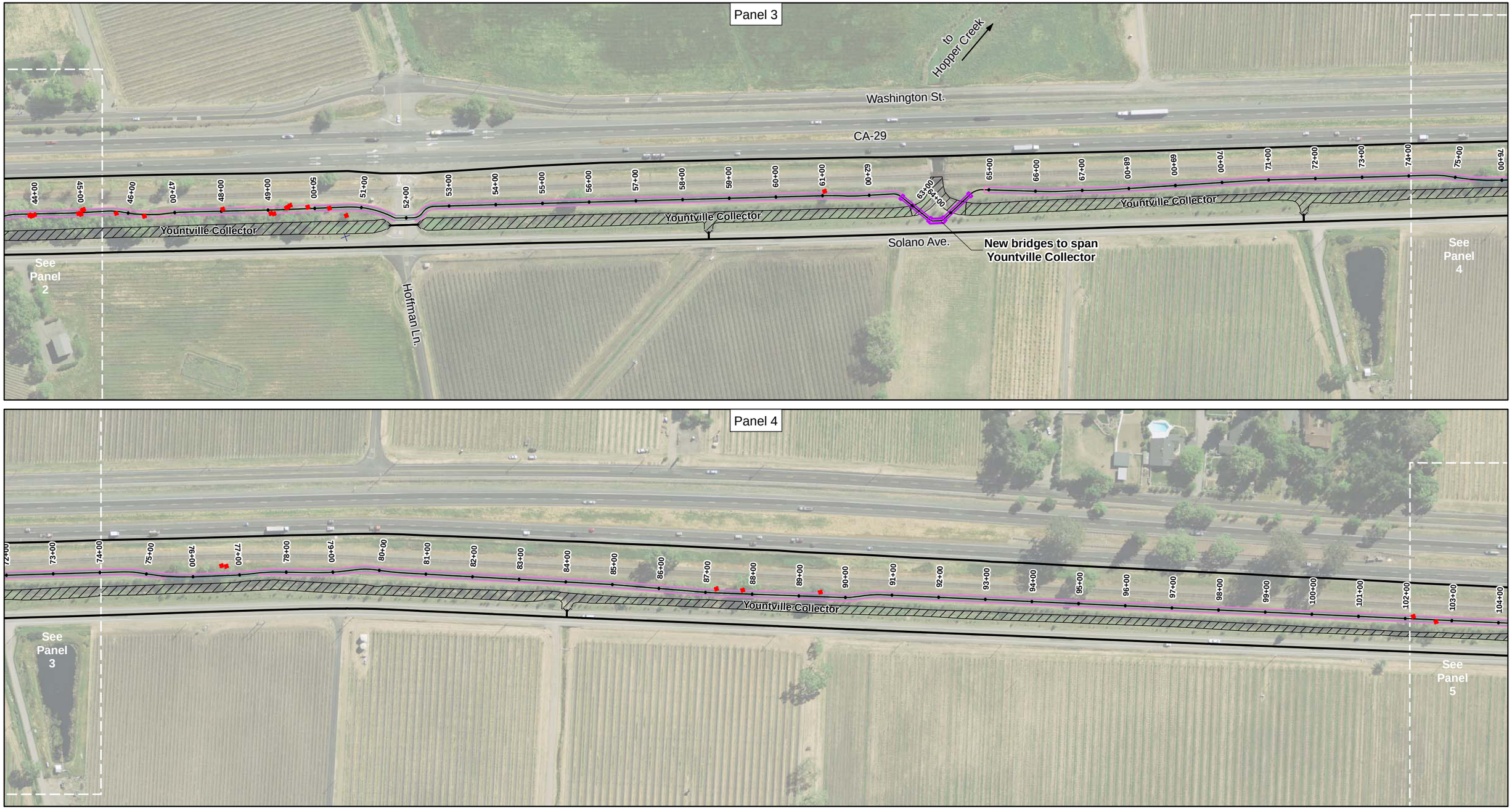


FIGURE 3A

Napa Valley Vine Trail Project
Napa County, California

Proposed Project



LEGEND

- Project Site
- Trail Shoulder
- New Retaining Wall
- New Curb and Gutter
- Tree to be Removed
- Wetland or Other Waters
- Jurisdictional Culvert

0 100 200 FEET

SOURCE: RSA (10/2014); USGS Orthoimagery (04/2011).

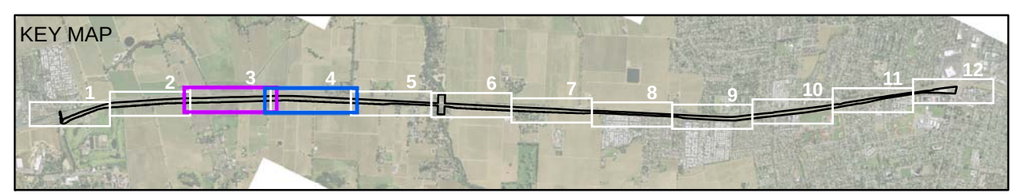


FIGURE 3B

Napa Valley Vine Trail Project
Napa County, California

Proposed Project

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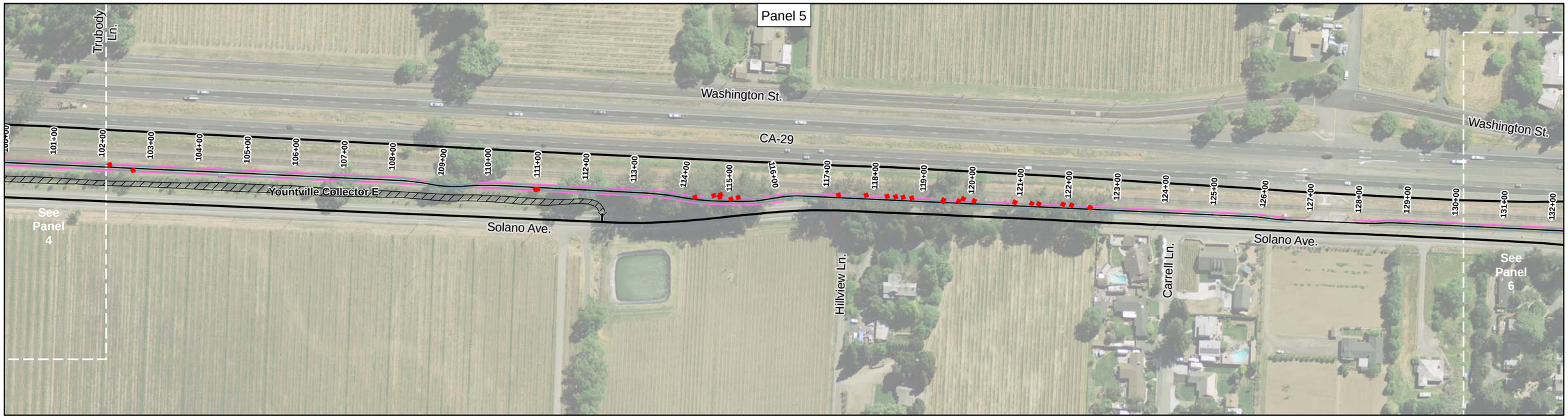

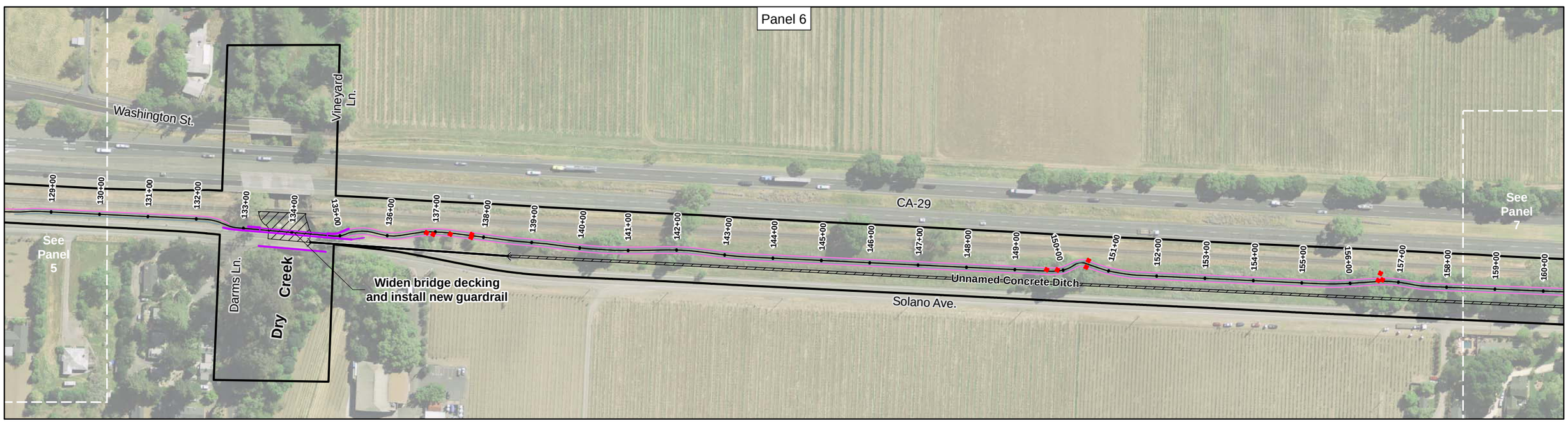

LEGEND

- Project Site
- Trail Shoulder
- New Retaining Wall
- New Curb and Gutter
- Tree to be Removed
- Wetland or Other Waters
- Jurisdictional Culvert

0 100 200
FEET

SOURCE: RSA (10/2014); USGS Orthoimagery (04/2011).

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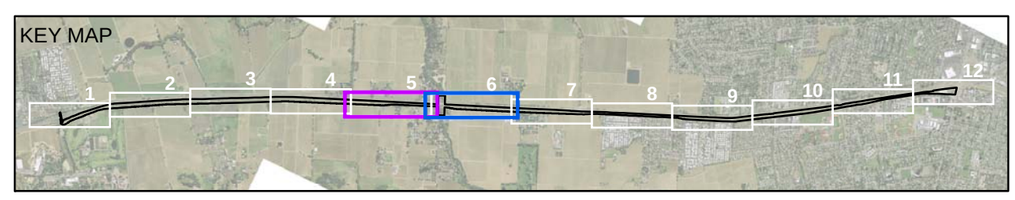
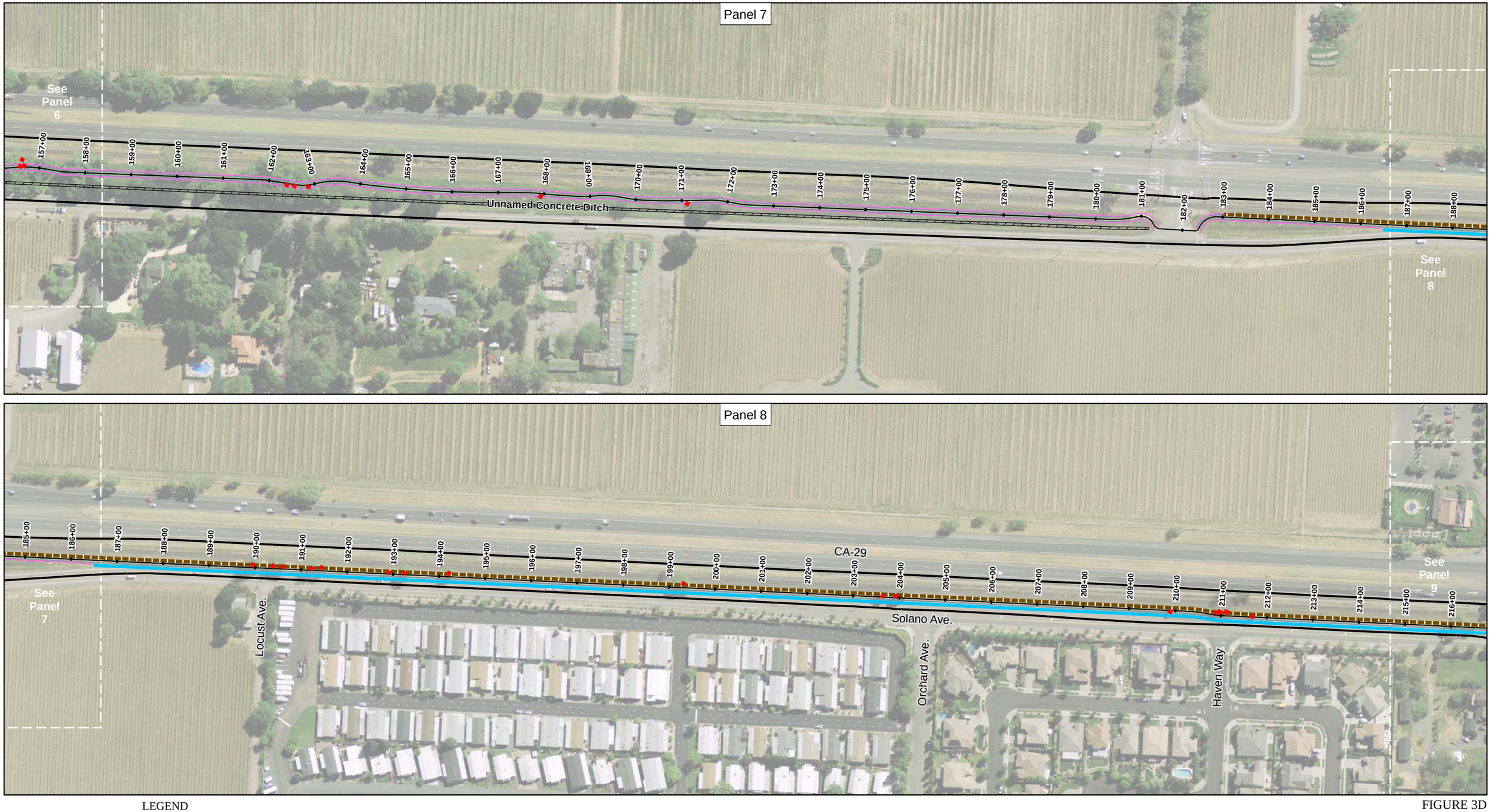


FIGURE 3C

Napa Valley Vine Trail Project
Napa County, California

Proposed Project



LEGEND

- Project Site
- Trail Shoulder
- New Retaining Wall
- New Curb and Gutter
- Tree to be Removed
- Wetland or Other Waters
- Jurisdictional Culvert

0 100 200
FEET

SOURCE: RSA (10/2014); USGS Orthoimagery (04/2011).

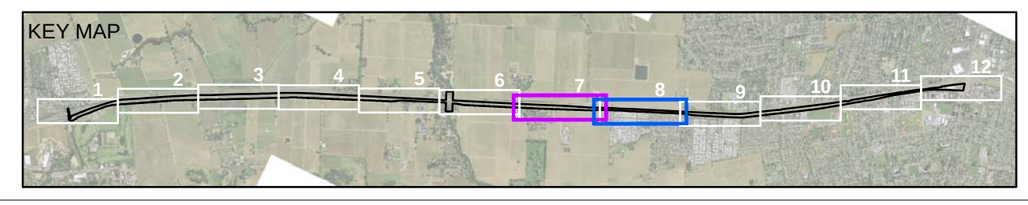


FIGURE 3D

Napa Valley Vine Trail Project
Napa County, California

Proposed Project

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LEGEND

- Project Site
- Trail Shoulder
- New Retaining Wall
- New Curb and Gutter
- Tree to be Removed
- Wetland or Other Waters
- Jurisdictional Culvert

0 100 200 FEET

SOURCE: RSA (10/2014); USGS Orthoimagery (04/2011).

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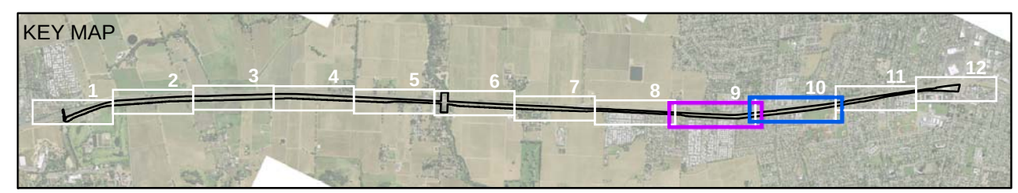
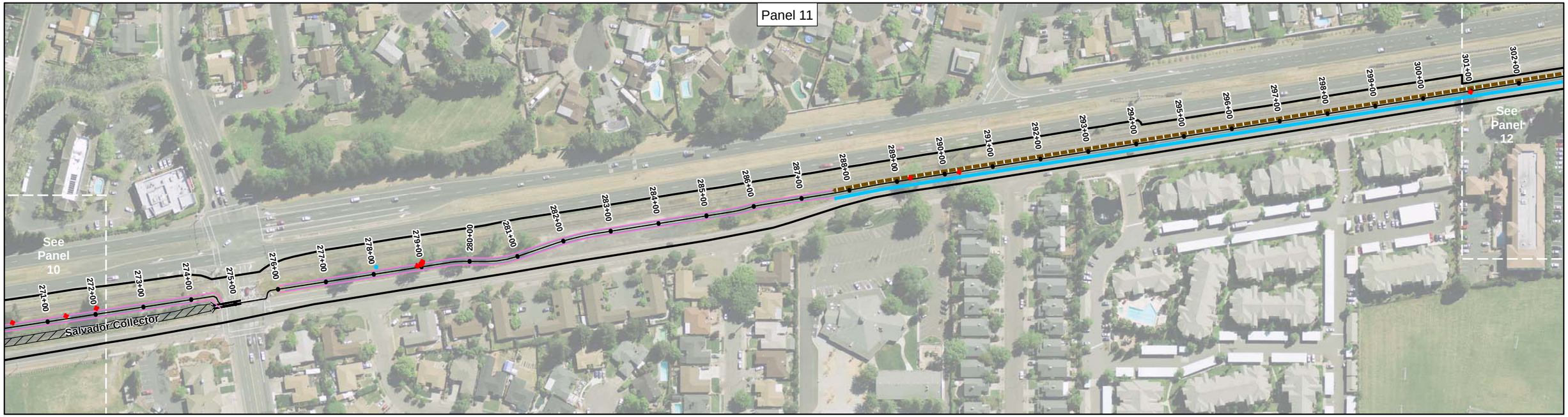
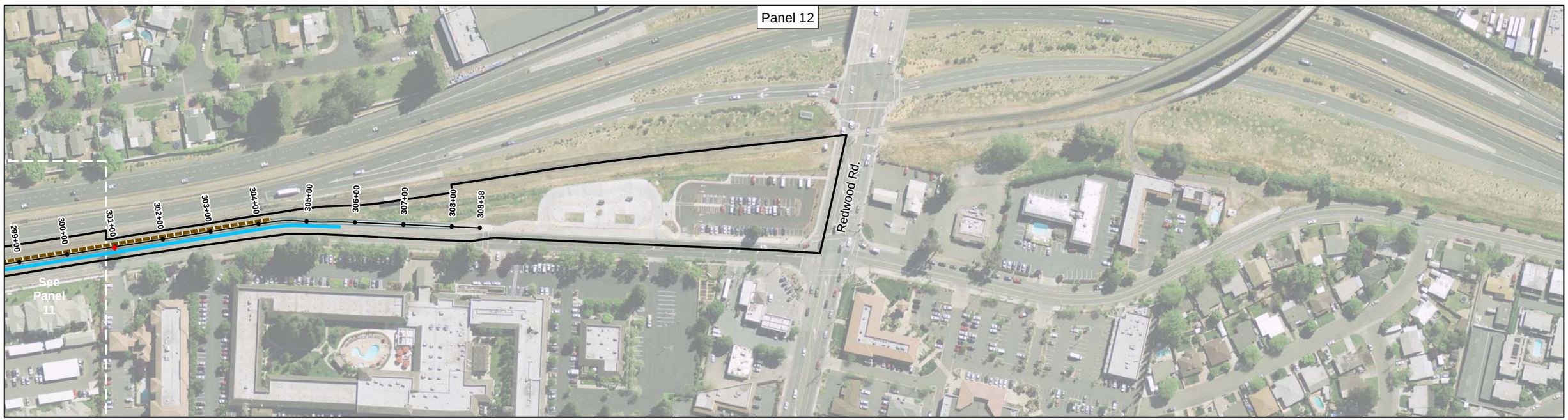


FIGURE 3E

Napa Valley Vine Trail Project
Napa County, California

Proposed Project





LEGEND

- Project Site
- Trail Shoulder
- New Retaining Wall
- New Curb and Gutter
- Tree to be Removed
- Wetland or Other Waters
- Jurisdictional Culvert

0 100 200
FEET

SOURCE: RSA (10/2014); USGS Orthoimagery (04/2011).

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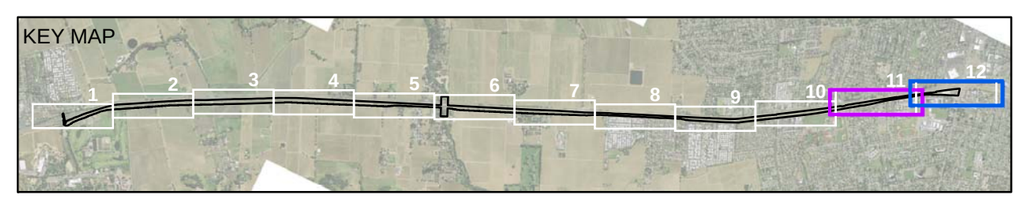

FIGURE 3F

Napa Valley Vine Trail Project
Napa County, California

Proposed Project

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" or "Potentially Significant Unless Mitigated" as indicated by the checklist on the following pages.

■ Aesthetics	❑ Agricultural/Forest Resources	■ Air Quality
■ Biological Resources	■ Cultural Resources	❑ Geology/Soils
❑ Greenhouse Gas Emissions	■ Hazards	❑ Hydrology/Water Quality
❑ Land Use/Planning	❑ Mineral Resources	■ Noise
❑ Population/Housing	❑ Public Services	■ Recreation
❑ Transportation/Traffic	❑ Utilities/Service Systems	■ 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 will be prepared.

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

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

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

❑ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kate Miller, Executive Director
Napa County Transportation & Planning Agency

1/13/15
Date

EVALUATION OF ENVIRONMENTAL IMPACTS

This section identifies the environmental impacts of this project by answering questions from Appendix G of the CEQA Guidelines, the Environmental Checklist Form. The environmental issues evaluated in this chapter include:

- Aesthetics
- Agricultural and Forest Resources
- Air Quality
- Biology
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Services Systems
- Mandatory Findings of Significance

All analyses take account the entire action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Impacts are categorized as follows:

Potentially Significant Impact is appropriate if there is substantial evidence that an effect is significant, or where the established threshold has been exceeded. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) may be required.

Less Than Significant with Mitigation Incorporated applies where the incorporation of mitigation measures would reduce an effect from Potentially Significant Impact to a Less Than Significant Impact. Mitigation measures are prescribed to reduce the effect to a less than significant level.

Less Than Significant applies when the project will affect or is affected by the environment, but based on sources cited in the report, the impact will not have an adverse effect. For the purpose of this report, beneficial impacts are also identified as less than significant. The benefit is identified in the discussion of impacts, which follows each checklist category.

A **No Impact** answer is adequately supported if referenced information sources show that the impact simply does not apply to projects like the one involved. A No Impact Answer is explained where it is based on project-specific factors as well as general standards.

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. 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) Substantially degrade the existing visual character or quality of the site and its surroundings?	❑	❑	■	❑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	❑	❑	❑	■

Affected Environment

The project site consists of public right-of-way between Solano Avenue and the Wine Train right-of-way. The proposed trail alignment extends from Redwood Road in the City of Napa through unincorporated Napa County to the Town of Yountville. The southernmost portion of the alignment (beginning at Redwood Road and continuing about 700 feet north) is currently developed with sidewalks, a bus depot, and asphalt-paved Park-n-Ride along the east side of Solano Avenue. Much of the remainder of the project site consists of a relatively narrow strip of undeveloped land bounded to the east by the Napa Valley Wine Train tracks and to the east by a shallow drainage ditch which parallels the east side of Solano Avenue. The majority of the project site is unimproved and vegetated with low grasses and ground cover, with sporadic clusters of mature trees in the central and northern areas of the site. Existing improvements within the project area are generally limited to underground utilities and box culverts that carry runoff in the Solano Avenue drainage ditch beneath Salvador and Wine Country Avenues. Topography along the project corridor is generally flat with a gentle slope eastward. The elevation profile along the project alignment varies slightly from approximately 70 to 105 feet above mean sea level (amsl), with an average elevation of approximately 95 feet amsl.

The existing visual setting reflects a combination of both manmade and natural conditions. Manmade conditions include single family and multifamily (apartments) residential uses; mobile home park; light industrial/warehouse uses; commercial development; motel/hotel; a high school; golf course; fire station; roadway infrastructure (e.g., Solano Avenue, SR 29, Park-n-Ride lot); and the Wine Train tracks. Undeveloped agricultural and vineyard lands surround the project site in the unincorporated area of Napa County. As described above, the majority of the project corridor is vegetated and some areas support clusters of mature trees of varying species and size. Views to and from the project

corridor vary widely depending on location (e.g., in unincorporated Napa County or the City of Napa).

The path would be constructed in accordance with local, State, and federal requirements and would consist of an asphalt concrete path 10 feet in width with shoulders within the public right-of-way. Vegetation would need to be grubbed within the proposed trail alignment and approximately 107 trees of various species, size and condition would need to be removed. Mitigation planting would follow local requirements.

Discussion

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. No scenic vistas are identified in the Napa County General Plan[2] to or from the project site. However SR 29 between the City of Napa city limits and the Town of Yountville is designated as County scenic roadway subject to the Viewshed Protection Program. The County's 2001 Viewshed Protection Ordinance[3] is intended to preserve the unique scenic quality of Napa County and protect the ridgelines and hillsides of the County from insensitive development. The proposed trail alignment is not located along the ridgelines or hillsides of the County; therefore, implementation of the proposed project would not conflict with the County's Viewshed Protection Ordinance.

The City of Napa General Plan[4] also designates SR 29 as a scenic corridor. The southernmost portion of the project alignment within the City of Napa is designated as a visual gateway. Per Policy LU-1.5 in the Napa General Plan, the City shall establish gateway and scenic corridor design guidelines for both public and private development to ensure attractive entrances to the city. Greenways, open space, riparian corridors, wetland areas and agricultural land shall be considered as important visual components in gateway locations.

Limited scenic vistas are possible along the project corridor due to the relatively flat topography and the surrounding urban development. Visible elements of the proposed project would include the proposed trail, retaining walls, and bridges over the two unnamed drainage channels, drainage improvements, and associated intersection improvements (e.g., crosswalks, signals). The majority of the project elements would be at-grade and are not expected to impair surrounding views. Proposed retaining walls would be a maximum of five feet high and are proposed within the developed area of Napa where scenic vistas are impeded by surrounding development. Implementation of the proposed project would require trimming and/or removal of vegetation and trees (approximately 107 trees) within the project corridor, including

[2] Napa County, 2009. Napa County General Plan. 23 June. Available online at: http://www.countyofnapa.org/generalplan/ (Accessed October 8, 2014).
[3] Napa County, 2014. Napa County Code, Chapter 18.106. Available online at: https://www.municode.com/library/ca/napa_county/codes/code_of_ordinances?searchRequest=%7B%22searchText%22:%22viewshed%22,%22pageNum%22:1,%22resultsPerPage%22:25,%22booleanSearch%22:false,%22stemming%22:true,%22fuzzy%22:false,%22synonym%22:false,%22contentTypes%22:%5B%22CODES%22%5D,%22productIds%22:%5B%5D%7D&nodeId=TIT18ZO_CH18.106VIPRPR (accessed October 22, 2014).
[4] City of Napa, 2010 (as amended). Envision Napa 2020, City of Napa General Plan. May. Available online at: http://www.cityofnapa.org/index.php?option=com_content&view=article&id=417&Itemid=531 (Accessed October 8, 2014).

approximately 73 trees identified as significant or protected trees by the City of Napa, Napa County or Town of Yountville. As outlined in the project description, mitigation planting would be installed as part of the proposed project. These activities would not result in substantial adverse impacts to scenic views, given the limited extent of tree removal over the length of the proposed alignment. Removal/trimming of trees associated with project construction would not substantially degrade scenic vistas along the project alignment. Therefore, the impact of the project on scenic vistas would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?

Potentially Significant Unless Mitigation Incorporated. A scenic corridor is associated with a road that has been designated by either Caltrans or a local agency, such as Napa County, as being a scenic highway or road or determined to be eligible for such a designation. Scenic highways are recognized as having exceptional scenic qualities or as affording panoramic views. According to the Napa County General Plan[5], approximately 280 miles of county-designated scenic roadways are located in Napa County, including SR 29 in the vicinity of the proposed project. Although none of these roads are officially designated as Scenic Highways by the State of California, segments of SR 29, SR 121, and SR 221 are eligible for scenic highway designation.

As described above, the proposed project would construct a new trail facility (e.g., asphalt path, bridges over the drainage channels, drainage improvements, and retaining walls) and associated intersection improvements (e.g., crosswalks, signage) within the public right-of-way between Solano Avenue and the Wine Train right-of-way, just west of SR 29. The proposed project would not be located near any rock outcroppings or historic buildings and, therefore, would not impact such resources.

The proposed project would result in tree removal and trimming in order to accommodate the proposed trail alignment. As described further in Section IV (e), the proposed project would require the removal of approximately 73 trees identified as “significant” or protected trees by the City of Napa, Napa County, or Town of Yountville. Implementation of Mitigation Measures BIO-13 through BIO-16, described in Section IV (e) would reduce potential impacts associated with removal of significant or protected trees within a scenic highway to less than significant.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. As described above, the proposed project is a multi-use trail with associated improvements. The project corridor is largely disturbed and bounded by existing infrastructure (e.g., Solano Avenue, Napa Wine Train tracks). Surrounding land uses vary from urban development (e.g., residential, commercial, public uses) to undeveloped land (e.g., rural residential, viticulture, agriculture). The project site is visible from surrounding public sites, including local roadways, adjacent development, and public facilities (e.g., school, golf course).

[5] Napa County, 2009.

Implementation of the proposed project would result in the installation of a multi-use trail and associated improvements, including bridges over the unnamed drainage channels, drainage improvements, retaining walls, crosswalks, signage and culvert widening. As described in Section I (a), the majority of the project elements would be at-grade and proposed retaining walls would be a maximum of five feet high. As described previously, project construction would require the removal of approximately 107 trees within the project alignment, including 73 trees designated as significant or protected trees by the City of Napa, Napa County or Town of Yountville. Mitigation planting would be installed as part of the proposed project. Due to the limited extent of tree removal over the entire length of the proposed alignment and the visual character of the project alignment (e.g., right-of-way between railroad tracks and Solano Avenue), these activities would not substantially degrade the visual quality of the site. Therefore, the impact of the proposed project on the existing visual character or quality of the site and its surroundings 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?

No Impact. Streetlights, vehicle head and tail lights, and lighting associated with existing development provide the existing sources of light and glare in the project area. The proposed project would include construction of a new multi-use trail and associated intersection improvements. No light standards would be installed as part of the proposed project. Therefore, the proposed project would not create a new source of light or glare, which would adversely affect day or nighttime views.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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 a 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 forestland to non-forest use?	❑	❑	❑	■

Affected Environment

Approximately 47.33 acres of the project area are mapped as Prime Farmland by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP).[6] The remaining

[6] California Department of Conservation, Division of Land Resource Protection, 2011. *Napa County Important Farmland 2010.* May. Available online at: ftp://ftp.consrv.ca.gov/pub/dlrp/fmmp/pdf/2010/nap10.pdf (accessed October 9, 2014).

45.42 acres of the project area are mapped as Urban and Built-Up Land. As defined in the FMMP, Prime Farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. These lands must have been used for irrigated agricultural production at some time during the four years prior to mapping. Urban and Built-Up Land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10 acre parcel.

According to the Napa County Zoning Ordinance[7], the City of Napa Zoning Ordinance[8], and the Town of Yountville Zoning Ordinance[9], portions of the project alignment are zoned for agricultural use.

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. A total of three parcels, adjacent to the project alignment, are under a Williamson Act contract.[10] One parcel is designated as Williamson Act – Prime Agricultural Land. Two parcels are designated as Williamson Act – Non-Prime Agricultural Land, which includes land enrolled under California Land Conservation Act contract but does not meet any of the criteria for classification as Prime Agricultural Land. Most Non-Prime Land is in agricultural use such as grazing or non-irrigated crops or other open space uses which are compatible with agriculture and consistent with local general plans.

No forest land or timberland is identified on or near the project site, and the project site is not zoned for forest or timber uses.

Discussion

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 a non-agricultural use?

Less Than Significant Impact. As described above, portions of the project alignment are mapped as Prime Farmland. However, the proposed trail alignment would be constructed between the Napa Valley Wine Train right-of-way and Solano Avenue, within public right-of-way. Implementation of the proposed project would convert some land designated as Prime Farmland to a Class I trail facility. The project corridor is not currently in agricultural use and is designated as public right-of-way. Therefore, this impact would be less than significant.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less Than Significant Impact. Portions of the project site are zoned for agricultural use. However, implementation of the proposed project would not convert the site to a non-agricultural use. The proposed project would not interfere with surrounding agricultural

[7] Napa County, 2014. Napa County Code, Title 18 Zoning. Available online at: https://library.municode.com/HTML/16513/level1/TIT18ZO.html (accessed October 9, 2014).
[8] City of Napa, 2014. Napa Municipal Code, Title 17. September. Available online at: http://qcode.us/codes/napa/ (accessed October 9, 2014).
[9] Town of Yountville, 2014. Town of Yountville Municipal Code, Title 17. Available online at: http://www.townofyountville.com/index.aspx?page=61 (accessed October 9, 2014).
[10] California Department of Conservation, Division of Land Resource Protection, 2013. *Napa County Williamson Act FY 2013/2014.* Available online at: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Napa_13_14_WA.pdf (accessed October 9, 2014).

activities after project completion or during construction. As described above, the proposed project would entail construction of a Class I trail facility and associated intersection improvements. The proposed project would be constructed within public right-of-way that is not currently in agricultural use. Therefore, the proposed project would not conflict with existing agricultural production or existing zoning for agricultural use. Three parcels adjacent to the proposed alignment are under Williamson Act contract. However, the proposed project would be constructed within the existing public right-of-way, which is not under Williamson Act contract. This impact would be less than significant.

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))?*

No Impact. The project area contains no forest or timberland and is not zoned for forest land, timberland, or timberland production.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. See response II(c) above.

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?*

No Impact. The proposed project would not involve other changes in the existing environment, which could result in the conversion of farmland to non-agricultural use. See responses II (a) and II (c) above.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management 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) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❑	■	❑	❑
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	❑	■	❑	❑
d) Expose sensitive receptors to substantial pollutant concentrations?	❑	■	❑	❑
e) Create objectionable odors affecting a substantial number of people?	❑	❑	❑	■

Affected Environment

The proposed project is located in Napa County within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In Napa and the rest of the air basin, exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

The Air Monitoring Program of the BAAQMD operates a 28-station monitoring network which provides the data required to determine whether the Bay Area is in compliance with State and federal air quality standards. Pollutant monitoring results for the years 2011 to 2013 at the Napa County ambient air quality monitoring station is described below.

Ozone levels, as measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State and federal agencies. The reduction of peak concentrations represents progress in improving public health; however the Bay Area still exceeds the State standard for 1-hour and 8-hour ozone levels. In addition, the Bay Area was designated as a nonattainment area for the federal 8-hour ozone level. Exceedances of the State's 1-hour standard have not been recorded at the Napa air monitoring station from 2011 to 2013. In addition, there has been one exceedance of the State

standard over the 3-year period and no exceedances of the federal 8-hour standard during the 3-year period.[11]

National and State standards have also been established for fine particulate matter (diameter 2.5 microns or less, $PM_{2.5}$), over 24-hour and yearly averaging periods. Fine particulate matter, because of the small size of individual particles, can be especially harmful to human health. Fine particulate matter is emitted by common combustion sources such as cars, trucks, buses and power plants, in addition to ground-disturbing activities. $PM_{2.5}$ levels exceeded the federal 24-hour standards six times in 2011 and 2013 and one time in 2012.

The Bay Area is an unclassified area for the federal PM_{10} standard and a nonattainment area at the State level. An "unclassified" designation signifies that data does not support either an attainment or nonattainment status. One exceedance of the state PM_{10} standard was recorded in 2011. No exceedances of the federal PM_{10} standards have been recorded at the monitoring station 2011 to 2013. Furthermore, no exceedances of the State or federal carbon monoxide (CO) standards have been recorded at the monitoring stations during the 3-year period. The Bay Area is currently considered an attainment area for State and federal CO standards.[12]

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The air quality plan applicable to the project area is the Bay Area Air Quality Management District's (BAAQMD) Bay Area 2010 Clean Air Plan (Clean Air Plan), which was adopted on September 15, 2010.[13] The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest heath risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project: 1) supports the goals of the Clean Air Plan; 2) includes applicable control measures from the Clean Air Plan; and 3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan. An evaluation of the project's consistency with each of these criteria is provided below. As described below, the proposed project would not conflict with or obstruct implementation of the Clean Air Plan and this impact would be less than significant.

Napa and the project site are located in the San Francisco Bay air basin and are within the jurisdiction of the BAAQMD. The proposed project would construct a 6 mile Class I bicycle/pedestrian path in Napa County which would connect two existing segments of the Vine Trail. The project would be consistent with applicable Clean Air Plan measures, including the Transportation Control Measure (TCM) D-1 Bicycle Access and Facility Improvements, and TCM D-2, Pedestrian Access and Facilities Improvements, which includes the expansion of

[11] California Air Resources Board, 2014. iADAM Air Quality Data Statistics. Available at http://www.arb.ca.gov/adam/. (accessed October 22, 2014)
[12] Ibid.
[13] Bay Area Air Quality Management District, 2010. *Bay Area 2010 Clean Air Plan*. September 15.

bicycle and pedestrian facilities serving employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers. As such, the project would not conflict with the strategies outlined in the Clean Air Plan for bringing the area into compliance, therefore; this impact is considered less-than-significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Potentially Significant Unless Mitigation Incorporated. Air pollutant emissions associated with the proposed project would occur over the short-term in association with construction activities, such as vehicle and equipment use. The project would not generate long-term regional emissions as described below.

Short-Term (Construction) Emissions. Construction activities could generate exhaust emissions from utility engines, on-site heavy duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting construction crews. Exhaust emissions during construction would vary daily as construction activity levels change. The use of construction equipment would result in localized exhaust emissions.

Project construction emissions were estimated using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RoadMod) which provides a methodology specifically for quantifying the emission impacts of linear construction projects and is approved for use on projects within the BAAQMD. The model was used to estimate vehicle exhaust and fugitive dust emissions from the proposed project construction. Construction-related emissions are presented in Table A.

Results indicate project construction would result in average daily emissions of 5 pounds per day of ROG, 49 pounds per day NO_x, 24 pounds per day PM_{10}, and 22 pounds per day of $PM_{2.5}$. Due to the limited extent of the proposed project construction duration, the estimated short-term emissions of criteria pollutants as a result of project construction are expected to be below emissions thresholds established by the BAAQMD, as shown in Table A.

Table A: Project Construction Emissions in Pounds/Day

Project Construction Phase	ROG	NO_x	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Unmitigated Construction Emission Estimates	5	49	24	22
BAAQMD Daily Thresholds	54	54	82	54
Exceed Threshold?	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., September 2014.

Fugitive dust emissions are associated with excavation, land clearing, exposure, and cut-and-fill operations. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. On a limited basis, sensitive receptors in the vicinity and on-site workers may be exposed to blowing dust, depending on the prevailing wind. BAAQMD specifies mitigation measures for dust control related to construction projects. These mitigation measures are intended to reduce PM_{10}

emissions to less-than-significant levels during the construction period. Implementation of Mitigation Measure AIR-1, described below would reduce this short-term construction period air quality impact to a less than significant level.

Mitigation Measure AIR-1: Consistent with guidance from the Bay Area Air Quality Management District, the following controls shall be implemented at the construction site to control construction emissions:

- 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.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points regarding maximum idling time.
- 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.
- The contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Napa County Transportation and Planning Agency phone number shall also be visible to ensure compliance with applicable regulations.

Long-Term (Operational) Emissions. Long-term air emissions impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase vehicle trip emissions. No stationary sources of emissions are proposed as part of the project. Once completed, the proposed project would not generate significant vehicle or other emissions. Therefore, long-term operation of the proposed project would not contribute substantially to an existing or projected air quality violation.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Potentially Significant Unless Mitigation Incorporated. As discussed in Section III.b, with implementation of Mitigation Measure AIR-1, construction of the proposed project would not be expected to result in significant levels of criteria air pollutants or pollutant precursors, while operation of the project would not generate air emissions. Therefore, construction and operation of the project would not significantly contribute cumulatively to pollution levels in the air basin. This impact is considered less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Unless Mitigation Incorporated. Construction of the proposed project may expose surrounding land uses to airborne particulates and fugitive dust, as well as a small quantity of pollutants associated with the use of construction equipment (e.g., diesel-fueled vehicles and equipment). Implementation of Mitigation Measure AIR-1, described above, would reduce construction-related emissions to a less than significant level. As discussed in Section III.b, the proposed project would not result in any long-term air quality impacts. Therefore, nearby sensitive receptors would not be exposed to substantial pollutant concentrations.

e) Create objectionable odors affecting a substantial number of people?

No Impact. The *BAAQMD CEQA Guidelines* lists potential odor sources that could cause significant environmental impacts. The types of operations that would occur on the project site are not included in this list and would not generate objectionable odors.

Some objectionable odors could be generated from the operation of diesel-powered construction equipment during the project construction period. However, these odors would be short-term in nature and would not result in permanent impacts to surrounding land uses, including sensitive receptors in the vicinity of the project site. Implementation of the proposed project would not create objectionable odors affecting a substantial number of people or subject persons to objectionable odors. Therefore, this impact would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES.				
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 Wildlife 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 Wildlife or U.S. Fish and Wildlife Service?	❑	■	❑	❑
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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?	❑	❑	❑	■

<u>Affected Environment:</u>

The following section is summarized from the Natural Environmental Study[14] prepared for the proposed project. Vegetation communities within the project area include non-native annual grassland, creeping ryegrass turfs/native grassland, non-native woodland, deciduous oak woodland, riparian woodland, and freshwater wetlands. The project area is located within a predominantly rural

[14] LSA Associates, Inc. 2014. Natural Environmental Study Vine Trail's Oak Knoll District Project, California Blvd., Town of Yountville to Redwood Road, City of Napa. June.

agricultural setting between SR 29 and Solano Avenue and is highly disturbed. Native oak trees are present throughout the project area, but occur primarily as widely spaced individuals rather than woodland stands. The project area also includes two other cover types, developed and landscaped. Developed areas are those consisting of pavement, gravel, bare ground, railroad tracks, or other features constructed by humans. Landscaped areas are dominated by ornamental tree plantings and are primarily associated with the southern end of the project alignment within the Napa City limits. Ornamental trees observed in the project area include tree of heaven (*Ailanthus altissima*), and sweet gum (*Liquidambar styraciflua*). Vegetation communities are described as follows:

- **Non-native Annual Grassland.** Annual grassland is the dominant vegetation type in the project area, occurring along nearly its entire length as open grassland as well as woodland understory. Dominant species include wild oat (*Avena fatua*) and rye grass (*Festuca perennis*). Ruderal forbs such as Italian thistle (*Carduus pycnocephalus*), wild radish (*Raphanus sativa*), and mustard (*Brassica* sp.) grow throughout the grassland as both dense patches as well as scattered individuals. Several patches of Himalayan blackberry (*Rubus discolor*) and California rose (*Rosa californica*) are also present. Although the grassland is dominated by non-native annuals and ruderal species, native forbs such as deerweed (*Acmispon americanus* var. *americanus*) and smooth scouring rush (*Equisetum laevigatum*) are present in the northern portion of the project area.

  Numerous trees grow throughout the grassland as isolated individuals and were likely planted as landscaping. Native emergent trees in the grassland include valley oak (*Quercus lobata*), Oregon white oak (*Q. garryana*), California black walnut (*Juglans californica*), and Fremont cottonwood (*Populus fremontii*). Non-native and/or ornamental trees include tree-of-heaven (*Ailanthus altissima*), sweetgum (*Liquidambar styraciflua*), and black locust (*Robinia pseudoacacia*).
- **Creeping Ryegrass Turfs/Native Grassland.** This vegetation type is comprised of 15 stands totaling 0.138 acre (ac) in size where creeping ryegrass (= beardless wild rye) (*Elymus triticoides*)[15] is the dominant species (i.e., at least 50 percent cover) in the herbaceous layer, in contrast to the adjacent ruderal vegetation, where non-native annual grasses dominate. This vegetation type is recognized as a special-status natural community. A small area of native grasses and forbs that appear to have been planted as a native grassland restoration site is present just north of the parking lot at the southern end of the project area; species observed in this area include purple needle grass (*Stipa pulchra*), blue wild-rye (*Elymus glaucus*), red fescue (*Festuca rubra*), big squirreltail (*Elymus multisetus*), lupine (*Lupinus* sp.), and California poppy (*Eschscholzia californica*).
- **Non-native Woodland.** Two stands of large blue gum (*Eucalyptus globulus*) trees are present in the project area: one along Solano Avenue between Carrell Lane and Hillview Lane approximately 0.2 mile north of Dry Creek (South Grove), and another between Vineyard View Drive and an unnamed access road approximately 0.5 mile south of the northern project area

[15] The common and scientific names of this species have changed since the publication of the CDFW alliance list in 2010. The species formerly known as creeping ryegrass (*Leymus triticoides*) is now known as beardless wild rye (*Elymus triticoides*) in the most recent edition of *The Jepson Manual* (Jepson Flora Project 2013). For the purposes of this IS/MND, the common name of "creeping ryegrass" has been retained due its more widespread use by agency biologists and planners, and its use in official publications referencing vegetation alliances (Sawyer et al. 2009) and special-status natural communities (CDFG 2010).

boundary (North Grove). The North Grove consists of three stands of five trees each while the South Grove consists of two stands of eight trees and five trees. Many of the trees in both groves are very large, exceeding 3 feet diameter-at-breast-height (DBH) and growing over 100 feet tall.

- **Deciduous Oak Woodland.** In a few areas in the northern portion of the project area, oaks, walnuts, and escaped ornamental or orchard trees grow in close enough proximity to form a closed or semi-closed canopy. Such stands are typically dominated or co-dominated by valley oak, Oregon white oak, and California black walnut, with smaller almond (*Prunus* sp.) and walnut trees in the understory. The herbaceous layer of these stands is dominated by non-native annual grasses and/or dense patches of Italian thistle or wild radish.
- **Riparian Vegetation.** Riparian vegetation in the project area is limited to mature riparian woodland adjacent to Dry Creek west of the Solano Avenue bridge and numerous Fremont cottonwoods that have been planted along the eastern edge of the Yountville Collector south of Hoffman Lane as part of a riparian restoration project implemented by the Napa County Flood Control and Water Conservation District. No riparian vegetation is present east of the existing bridge over Dry Creek where bridge widening will occur. Dominant trees along the creek west of Solano Avenue include Fremont cottonwood and California black walnut with a shrub layer dominated by willows (*Salix* sp.) and valley oak saplings. A few large ornamental blue gum trees are present along the top of the northern bank. Although the riparian restoration area south of Hoffman Lane provides some habitat value for native wildlife, it does not yet support a multi-layered vegetation structure (i.e., canopy, subcanopy, and dense understory shrub layer) characteristic of mature riparian forest or woodland, and thus is of lower habitat quality than the woodland along Dry Creek.
- **Freshwater Wetlands.** Freshwater wetlands are confined to the drainage channels parallel to Solano Avenue (i.e., Yountville and Salvador Collectors). Cover varies from dense stands of cattails (*Typha latifolia*, *T. angustifolia*) and tules (*Schoenoplectus acutus*) to more open reaches of low-growing aquatic plants such as nutsedge (*Cyperus eragrostis*), watercress (*Rorippa nasturtium-aquaticum*), floating primrose-willow (*Ludwigia peploides*), evening primrose (*Oenothera elata*), and Uruguay water-primrose (*Ludwigia hexapetala*).

Special-status Plants. Table B provides a list of special-status species that could potentially occur in the region surrounding the project area. Of the 76 plant species listed in the table, 65 were eliminated from consideration due to a lack of habitat (e.g., chaparral, coniferous forest, vernal pools, and serpentinite) or because they are considered extirpated from the area (i.e., Northern California black walnut). Freshwater marsh habitat is present for Lyngbye's sedge (*Carex lyngbyei*), johnny-nip (*Castilleja ambigua* ssp. *ambigua*), small spikerush (*Eleocharis parvula*), delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), California beaked rush (*Rynchospora californica*), and saline clover (*Trifolium depauperatum* var. *hydrophilum*), but LSA did not detect any of these species during botanical surveys.

Similarly, LSA did not detect white seaside tarplant (*Hemizonia congesta* ssp. *congesta*), Lobb's aquatic buttercup (*Ranunculus lobbii*), Napa bluecurls (*Trichostema ruygtii*), or two-fork clover (*Trifolium amoenum*) in the annual grassland portions of the BSA, presumably due to its highly disturbed condition.

During the focused botanical survey on May 6, 2013, LSA observed Sanford's arrowhead (*Sagittaria sanfordii*), a California Rare Plant Rank 1B species, growing at approximately 12 locations in the Yountville Collector between Hoffman Lane and Vineyard View Drive. On July 7, 2013, LSA observed that most of the vegetation within this channel reach, including most of the Sanford's arrowhead, had been cleared for purposes of channel maintenance. The species was not observed in any other portions of the channel, despite the availability of similar habitat.

Table B: Special-status Species Potentially Occurring in the Vicinity of the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
PLANTS						
Henderson's bent grass	*Agrostis hendersonii*	3	Mesic grassland, vernal pools. Elevation: 70–305 meters (m). Blooms April to June.	N	N	Not detected during botanical surveys. Mesic grassland and vernal pools absent from BSA.
Franciscan onion	*Allium peninsulare* var. *franciscanum*	1B	Clay or volcanic soils in oak woodland and annual grassland. Elevation: 52–300 m. Blooms May to June	N	N	Not detected during botanical surveys. Suitable soils not present.
Napa false indigo	*Amorpha californica* var. *napensis*	1B	Openings in mixed evergreen forest, chaparral, and oak woodland. Elevation: 120–1,200 meters (m). Blooms April to July	N	N	Not detected during botanical surveys. BSA too disturbed.
Twig-like snapdragon	*Antirrhinum virga*	4	Rocky, serpentine soils in chaparral and coniferous forest. Elevation: 100–2,015 m. Blooms June to July	N	N	Chaparral and coniferous forest absent from BSA
Modest rockcress	*Arabis modesta*	4	Chaparral and coniferous forest. Elevation: 120–800 m. Blooms March to July	N	N	Chaparral and coniferous forest absent from BSA
Baker's manzanita	*Arctostaphylos bakeri* ssp. *bakeri*	1B	Serpentinite in mixed evergreen forest and chaparral. Elevation: 75–300 m. Blooms February to April.	N	N	Chaparral and forest absent from BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Sonoma canescent manzanita	*Arctostaphylos canescens* ssp. *sonomensis*	1B	Chaparral and coniferous forest. Elevation: 180–1,675 m. Blooms January to June.	N	N	Chaparral and forest absent from BSA
Rincon Ridge manzanita	*Arctostaphylos stanfordiana* ssp. *decumbens*	1B	Chaparral and oak woodland. Elevation: 75–370 m. Blooms February to May.	N	N	Chaparral and oak woodland absent from BSA
Clara Hunt's milk vetch	*Astragalus claranus*	FE, ST, 1B	Serpentinite or volcanic, rocky soils in chaparral, oak woodland, and annual grassland. Elevation: 75–275 m. Blooms March to May	N	N	Serpentinite and rocky soils absent from BSA
Cleveland's milk-vetch	*Astragalus clevelandii*	4	Serpentinite seeps in chaparral, oak woodland, and riparian forest. Elevation: 200–1,500 m. Blooms June to September.	N	N	Serpentinite seeps absent from BSA
San Joaquin spearscale	*Atriplex joaquiniana*	1B	Alkali soils in chenopod scrub, meadows, seeps, playas, and annual grassland. Elevation: 1–835 m. Blooms April to October.	N	N	Alkali soils absent from BSA
Alkali milk-vetch	*Astragalus tener* var. *tener*	1B	Alkaline playas, clay grassland, and vernal pools. Elevation 1–60 m. Blooms March to June.	N	N	Alkaline playas, clay grassland, and vernal pools absent from BSA
Big-scale balsamroot	*Balsamorhiza macrolepis*	1B	Chaparral, oak woodland, annual grassland. Elevation: 90–1,555 m. Blooms March to June.	N	N	Not detected during botanical surveys. Chaparral and oak woodland absent from BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Sonoma sunshine	*Blennosperma bakeri*	FE, SE, 1B	Mesic annual grassland and vernal pools. Elevation: 10–110 m. Blooms March to May.	N	N	Not detected during botanical surveys. Mesic grassland and vernal pools absent from BSA.
Narrow-anthered brodiaea	*Brodiaea leptandra*	1B	Volcanic soils in mixed evergreen forest, chaparral, oak woodland, coniferous forest, and annual grassland. Elevation: 110–915 m. Blooms May to July	N	N	Volcanic soils absent from BSA
Brewer's calandrinia	*Calandrinia breweri*	4	Sandy or loamy disturbed sites and burns in chaparral and coastal scrub. Elevation: 10–1,220 m. Blooms March to June.	N	N	Chaparral and coastal scrub absent from BSA
Mt. Diablo fairy lantern	*Calochortus pulchellus*	1B	Chaparral, oak woodland, riparian woodland, annual grassland. Elevation: 30–840 m. Blooms April to June.	N	N	Not detected during botanical surveys
Small-flowered calycadenia	*Calycadenia micrantha*	1B	Roadsides, rocky talus and scree, sparsely vegetated areas in chaparral, meadows and seeps, and annual grassland. Elevation: 5–1,500 m. Blooms June to September.	N	N	Rocky soils absent from BSA
Lyngbye's sedge	*Carex lyngbyei*	2	Brackish or freshwater marshes and swamps. Elevation: 0–10 m. Blooms April to August.	Y	N	Not detected during botanical surveys

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Tiburon paintbrush	*Castilleja affinis* var. *neglecta*	1B	Serpentinite in annual grassland. Elevation: 60–400 m. Blooms April to June.	N	N	Serpentinite absent from BSA
Johnny-nip	*Castilleja ambigua* ssp. *ambigua*	4	Coastal bluff scrub, coastal scrub, coastal prairie, marshes and swamps, annual grassland, venal pool margins. Elevation: 0–435 m. Blooms March to August.	Y	N	Not detected during botanical surveys
Mead's owl's-clover	*Castilleja ambigua* ssp. *meadi*	1B	Gravelly, volcanic, and clay soils in meadows and seeps and vernal pools. Elevation: 450–475 m, blooms April to May.	N	N	Meadows, seeps, and vernal pools absent from BSA
Rincon Ridge ceanothus	*Ceanothus confusus*	1B	Volcanic soils or serpentinite in chaparral, coniferous forest, and oak woodland. Elevation: 75–1,065 m. Blooms February to June.	N	N	Volcanic soils and serpentinite absent from BSA
Calistoga ceanothus	*Ceanothus divergens*	1B	Serpentinite or rocky soils in chaparral. Elevation: 170–950 m. Blooms February to April.	N	N	Chaparral absent from BSA
Holly-leaved ceanothus	*Ceanothus purpureus*	1B	Volcanic, rocky soils in chaparral and oak woodland.	N	N	Volcanic, rocky soils absent from BSA
Sonoma ceanothus	*Ceanothus sonomensis*	1B	Sandy, serpentine, or volcanic soils in chaparral. Elevation: 215–800 m. Blooms February to April.	N	N	Chaparral absent from BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Pappose tarplant	*Centromadia parryi* ssp. *parryi*	1B	Mostly alkaline soils in chaparral, coastal prairie, meadows and seeps, coastal salt marsh, and mesic annual grassland. Elevation: 0–420 m. Blooms May to November.	N	N	Alkaline soils not present in BSA
Parry's rough tarplant	*Centromadia parryi* ssp. *rudis*	4	Alkaline soils and vernally mesic seeps in annual grassland and vernal pools. Elevation: 0–100 m. Blooms May to October.	N	N	Alkaline soils and vernal pools absent from BSA
Sonoma spineflower	*Chorizanthe valida*	FE, SE, 1B	Sandy soils in coastal prairie. Elevation: 10–305 m. Blooms June to August.	N	N	Coastal prairie absent from BSA
Brewer's clarkia	*Clarkia breweri*	4	Chaparral, oak woodland, and coastal scrub. Elevation: 215–1,115 m. Blooms April to June.	N	N	Chaparral, oak woodland, and coastal scrub absent from BSA.
Tracy's clarkia	*Clarkia gracilis*	4	Openings in chaparral. Elevation: 65–650 m. Blooms April to July.	N	N	Chaparral absent from BSA
Serpentine collomia	*Collomia diversifolia*	4	Serpentinite, rocky or gravelly substrate in chaparral and oak woodland. Elevation: 300–600 m. Blooms May to June.	N	N	Chaparral and oak woodland absent from BSA
Serpentine cryptantha	*Cryptantha clevelandii* var. *dissita*	1B	Serpentinite in chaparral. Elevation: 395–580 m. Blooms April to June.	N	N	Chaparral absent from BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Dwarf downingia	*Downingia humilis*	2B	Mesic grassland and vernal pools. Elevation: 1–445 m. Blooms March to May.	N	N	Mesic grassland and vernal pools absent from BSA
Small spikerush	*Eleocharis parvula*	4	Marshes and swamps. Elevation: 1–3,020 m. Blooms April to September.	Y	N	Not detected during botanical surveys
Streamside daisy	*Erigeron biolettii*	3	Rocky and mesic substrates in mixed evergreen forest, oak woodland, and coniferous forest. Elevation: 30–1,100 m. Blooms June to October.	N	N	Forest and woodland absent from BSA
Greene's narrow-leaved daisy	*Erigeron greenei*	1B	Chaparral. Elevation: 80–1,005 m. Blooms May to September.	N	N	Chaparral absent from BSA
Tiburon buckwheat	*Erigonum caninum*	1B	Serpentinite or sandy, gravelly substrates in chaparral, oak woodland, coastal prairie, annual grassland. Elevation: 0–700 m. Blooms May to September.	N	N	Serpentinite and sandy soils absent from BSA
Woolly-headed gilia	*Gilia capitata* ssp. *tomentosa*	1B	Serpentinite and rocky outcrops in coastal bluff scrub and annual grassland. Elevation: 10-–220 m. Blooms May to July.	N	N	Serpentinite and rocky outcrops absent from BSA
Nodding harmonia	*Harmonia nutans*	4	Rocky, gravelly, volcanic soils in chaparral and oak woodland. Elevation: 75–975 m. Blooms March to May	N	N	Chaparral and oak woodland absent from BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Diablo helianthella	*Helianthella castanea*	1B	Rocky soils in chaparral/oak woodland interface. Elevation: 60–1,300 m. Blooms March to June.	N	N	Chaparral and oak woodland absent from BSA
White seaside tarplant	*Hemizonia congesta* ssp. *congesta*	1B	Annual grassland, sometimes along roadsides. Elevation: 20–560 m. Blooms April to November.	Y	N	Not detected during botanical surveys
Two-carpellate western flax	*Hesperolinon bicarpellatum*	1B	Chaparral. Elevation: 60–1,005 m. Blooms May to July.	N	N	Chaparral absent from BSA
Brewer's western flax	*Hesperolinon breweri*	1B	Serpentinite in chaparral, oak woodland, and annual grassland. Elevation: 30–900 m. Blooms May to July	N	N	Serpentinite absent from BSA
Tehama County western flax	*Hesperolinon tehamense*	1B	Serpentinite in chaparral and oak woodland. Elevation: 100–1,250 m. Blooms May to July.	N	N	Serpentinite absent from BSA
Thin-lobed horkelia	*Horkelia tenuiloba*	1B	Mesic openings and sandy soils in mixed evergreen forest, chaparral, and annual grassland. Elevation: 50–500 m. Blooms May to August.	N	N	Sandy soils absent from BSA. Not detected during botanical surveys.
Coast iris	*Iris longipetala*	4	Mesic soils in coastal prairie, coniferous forest, and meadows and seeps. Elevation: 0–600 m. Blooms March to May.	N	N	Not detected during botanical surveys

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Northern California black walnut	*Juglans californica* var. *hindsii*	1B	Riparian forest and woodland. Elevation: 0–440 m. Blooms April to May.	N	N	Naturalized specimens present in BSA but lack of riparian woodland and forest precludes native occurrence.
Contra Costa goldfields	*Lasthenia conjugens*	FE, CH, 1B	Vernal pools, swales, and moist alkaline depressions. Elevation: 0–470 m. Blooms March to June.	N	N	Vernal pools absent from BSA
Delta tule pea	*Lathyrus jepsonii* var. *jepsonii*	1B	Freshwater and brackish marshes and swamps. Elevation: 0–4 m. Blooms May to September.	Y	N	Not detected during botanical surveys
Legenere	*Legenere limosa*	1B	Vernal pools. Elevation: 1–880 m. Blooms April to June.	N	N	Vernal pools absent from BSA
Bristly leptosiphon	*Leptosiphon acicularis*	4	Chaparral, oak woodland, coastal prairie, and annual grassland. Elevation: 55–1,500 m. Blooms April to July.	N	N	Not detected during botanical surveys
Jepson's leptosiphon	*Leptosiphon jepsonii*	1B	Usually volcanic soils in chaparral and oak woodland. Elevation: 100–500 m. Blooms March to May.	N	N	Chaparral and oak woodland absent from BSA
Broad-lobed leptosiphon	*Leptosiphon latisectus*	4	Mixed evergreen forest and oak woodland. Elevation: 170–1,500 m. Blooms April to June.	N	N	Mixed evergreen forest and oak woodland absent from BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Woolly-headed lessingia	*Lessingia hololeuca*	3	Clay soils and serpentinite in mixed evergreen forest, coastal scrub, coniferous forest, and annual grassland. Elevation: 15–305 m. Blooms June to October.	N	N	Clay soils and serpentinite absent from BSA.
Redwood lily	*Lilium rubescens*	4	Mixed evergreen forest, chaparral, and coniferous forest. Elevation: 30–1,910 m. Blooms April to September.	N	N	Forest and chaparral absent from BSA
Sebastopol meadowfoam	*Limnanthes vinculans*	1B	Vernally mesic meadows and seeps, annual grassland, and vernal pools. Elevation: 15–305 m. Blooms April to May.	N	N	Vernal pools absent from BSA
Napa lomatium	*Lomatium repostum*	4	Serpentinite in chaparral and oak woodland. Elevation: 90–830 m. Blooms March to June.	N	N	Serpentinite absent from BSA
Cobb Mountain lupine	*Lupinus sericatus*	1B	Mixed evergreen forest, chaparral, oak woodland, and coniferous forest. Elevation: 275–1,525 m. Blooms March to June.	N	N	Forest, chaparral, and oak woodland absent from BSA
Mt. Diablo cottonweed	*Micropus amphibolus*	3	Rocky substrates in mixed evergreen forest, chaparral, oak woodland, and annual grassland. Elevation: 45–825 m. Blooms March to May.	N	N	Rocky substrates absent from BSA
Green monardella	*Monardella viridis*	4	Mixed evergreen forest,	N	N	Forest, chaparral, and oak

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
	ssp. *viridis*		chaparral, and oak woodland. Elevation: 100–1,010 m. Blooms June to September.			woodland absent from BSA
Few-flowered navarretia	*Navarretia leucocephala* ssp. *pauciflora*	1B	Vernal pools. Elevation 400–855 m. Blooms May to June.	N	N	Vernal pools absent from BSA
Sonoma beardtongue	*Penstemon newberryi* var. *sonomensis*	1B	Chaparral. Elevation 700–1,370 m. Blooms April to August.	N	N	Chaparral absent from BSA
Lobb's aquatic buttercup	*Ranunculus lobbii*	4	Mesic soils in oak woodland, coniferous forest, annual grassland, and vernal pools.	Y (grassland)	N	Not detected during botanical surveys
California beaked-rush	*Rhynchospora californica*	1B	Bogs and fens, coniferous forest, seeps, and freshwater marshes. Elevation: 45–1,010 m. Blooms May to July.	Y	N	Not detected during botanical surveys
Sanford's arrowhead	*Sagittaria sanfordii*	1B	Shallow freshwater marshes and swamps. Elevation: 0–650 m. Blooms May to October.	Y	Y	LSA observed this species in the flood control channel approx. 1,700 feet north of Hoffman Lane during the May 6 botanical survey.
Cleveland's ragwort	*Senecio clevelandii* var. *clevelandii*	4	Serpentinite seeps in chaparral. Elevaion: 365–900 m. Blooms June to July.	N	N	Chaparral absent from BSA
Napa checkerbloom	*Sidalcea hickmanii* var. *napensis*	1B	Chaparral. Elevation: 415–610 m. Blooms April to June.	N	N	Chaparral absent from BSA
Marin checkerbloom	*Sidalcea hickmanii* var. *viridis*	1B	Chaparral. Elevation: 50–430 m. Blooms May to	N	N	Chaparral absent from BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
			June.			
Keck's checkerbloom	*Sidalcea keckii*	1B	Serpentinite and clay soils in oak woodland and annual grassland. Elevation: 75–650 m. Blooms April to June.	N	N	Serpentinite and clay soils absent from BSA
Green jewel-flower	*Streptanthus breweri* var. *hesperidis*	1B	Serpentinite and rocky substrates in chaparral and oak woodland. Elevation: 130–760 m. Blooms May to July.	N	N	Serpentinite and rocky substrates absent from BSA
Napa bluecurls	*Trichostema ruygtii*	1B	Chaparral, oak woodland, coniferous forest, annual grassland, and vernal pools. Elevation: 30–680 m. Blooms June to October.	Y (grassland)	N	Not detected during botanical surveys
Two-fork (=showy Indian) clover	*Trifolium amoenum*	FE, 1B	Coastal bluff scrub and annual grassland. Elevation: 5–415 m. Blooms April to June.	Y (grassland)	N	Not detected during botanical surveys
Saline clover	*Trifolium depauperatum* var. *hydrophilum*	1B	Marshes and swamps, mesic alkaline grassland, and vernal pools. Elevation: 0–300 m. Blooms April to June.	Y	N	Not detected during botanical surveys
Dark-mouthed triteleia	*Triteleia lugens*	4	Mixed evergreen forest, chaparral, coastal scrub, and coniferous forest. Elevation: 100–1,000 m. Blooms April to June.	N	N	Forest, chaparral, and scrub absent from BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Oval-leaved viburnum	*Viburnum ellipticum*	2B	Chaparral, oak woodland, and coniferous forest. Elevation: 215–1,400 m. Blooms May to June.	N	N	Chaparral, oak woodland, and coniferous forest absent from BSA
INVERTEBRATES						
Conservancy fairy shrimp	*Branchinecta conservatio*	FE	Large, cool-water vernal pools with moderately turbid water	N	N	Vernal pools absent from BSA
California freshwater shrimp	*Syncaris pacifica*	FE, SE	Low-elevation and low-gradient perennial coastal streams with exposed tree roots, undercut banks, and/or overhanging woody debris or vegetation.	N	N	Reach of Dry Creek within BSA does not contain adequate streamside cover.
FISH						
Delta smelt	*Hypomesus transpacificus*	FE, ST, CH	Lower tidal reaches of large rivers flowing into the San Francisco estuary and open waters of the estuary.	N	N	BSA located outside known range of species. No tidal rivers or streams present in BSA or vicinity.
Longfin smelt	*Spirinchus thaleichthys*	ST	Bays, estuaries, and nearshore oceanic waters.	N	N	BSA located outside known range of species. No tidal rivers or streams present in BSA or vicinity.
Steelhead (central California coast DPS[16])	*Oncorhynchus mykiss irideus*	FT, CSC, CH	Coastal streams from Russian River south to Aptos Creek (Santa Cruz Co.), including streams tributary to San Francisco and San Pablo Bays.	Y	Y	Known to occur in Dry Creek (Leidy et al. 2005).

[16] DPS = distinct population segment

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Steelhead (Central Valley DPS)	*Oncorhynchus mykiss irideus*	FT, CH	Central Valley and foothill rivers and streams with cold water and deep (3 feet or greater) pools and runs; for spawning requires clean, silt-free gravel (0.5-5 inches) beds, with clear flowing water and shaded stream reaches. Spawning adults occur during winter high water.	N	N	BSA located outside known range of this DPS. Does not occur in streams tributary to San Francisco Estuary (excepting Sacramento and San Joaquin Rivers).
Chinook salmon (Central Valley spring-run ESU[17])	*Oncorhynchus tshawytscha*	FT, ST	Freshwater habitat: cold water and deep pools and runs; for spawning requires clean, silt-free gravel beds, with clear flowing water	N	N	BSA located outside known range of this ESU. Does not occur in smaller streams tributary to San Francisco Estuary.
Chinook salmon (Sacramento River winter-run ESU)	*Oncorhynchus tshawytscha*	FE, SE	Freshwater habitat: cold water and deep pools and runs; for spawning requires clean, silt-free gravel beds, with clear flowing water.	N	N	BSA located outside known range of this ESU. Does not occur in streams tributary to San Francisco Estuary.
AMPHIBIANS AND REPTILES						
California red-legged frog	*Rana draytonii*	FT, CH, CSC	Ponds, streams, drainages and associated uplands; requires areas of deep, still, and/or slow-moving water for breeding.	Y	N	Flood control channel and Dry Creek provide aquatic habitat but species not detected during 2013 protocol-level survey.

[17] ESU = evolutionarily significant unit

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Foothill yellow-legged frog	*Rana boylii*	CSC	Partly shaded, shallow streams and riffles with a rocky substrate.	Y	U	Reach of Dry Creek within BSA provides high-quality habitat.
Western pond turtle	*Actinemys marmorata*	CSC	Ponds, streams, drainages, and associated uplands.	Y	U	Species not detected to date but drainage channels and Dry Creek provide high-quality aquatic habitat and grassland adjacent to channel marginally suitable for nesting.
BIRDS						
White-tailed kite	*Elanus leucurus*	CFP	Open grasslands, meadows, or marshes. Requires dense-topped trees or shrubs for nesting and perching.	Y	U	Species not detected to date but numerous trees provide suitable nest sites and grassland suitable for foraging.
Bald eagle	*Haliaeetus leucocephalus*	SE	Lakes, reservoirs, rivers, lagoons, and seashores; usually nest in large trees or snags near water.	N	N	Large water bodies and associated large trees or snags absent from BSA.
Swainson's hawk	*Buteo swainsoni*	ST	Open grasslands and agricultural fields. Nests in large trees such as valley oak, cottonwood, or eucalyptus.	Y	U	Large trees in BSA provide suitable nest sites but foraging habitat is limited due to absence of low-growing agricultural crops in vicinity. Little is known about the foraging habits of this species in the Napa Valley.
California least tern	*Sternula antillarum browni*	FE, SE, CFP	Sandy beaches, alkali flats, hard-pan surfaces (salt ponds).	N	N	BSA located outside known range of this species. Habitat not present.
Northern spotted owl	*Strix occidentalis caurina*	FT	Old-growth forests or mixed stands of old growth and mature trees.	N	N	Old-growth coniferous forest absent from BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale
Loggerhead shrike	*Lanius ludovicianus*	CSC	Open grasslands and woodlands with scattered shrubs, fence posts, utility lines, or other perches. Nests in dense shrubs and lower branches of trees.	Y	U	Species not detected to date but numerous trees suitable for nesting and grassland suitable for foraging.
Tricolored blackbird	*Agelaius tricolor*	CSC	Nests in dense vegetation near open water, forages in grasslands and agricultural fields.	N	N	Cattail stands in flood control channel too small to support a nesting colony.
MAMMALS						
Pallid bat	*Antrozous pallidus*	CSC	Roosts in caves, tunnels, buildings, under bridges, and in tree hollows; forages over a variety of habitats.	Y	Y	Active night roost observed under Solano Avenue bridge over Dry Creek during June 10 nighttime CRLF survey. Underside of bridge too open to be used as a maternity roost, however.
Townsend's big-eared bat	*Corynorhinus townsendi*	SC	Requires spacious cavern-like structures for roosting, typically caves or mines but also in large hollows of trees, attics and abandoned buildings, lava tubes, and under bridges. Forages over a variety of habitats.	Y	U	No known occurrences within 5 miles of BSA (CDFW 2013). Solano Avenue bridge over Dry Creek suitable for night roosting but too open to be used as a maternity/daytime roost. No other large spacious cavities or structures observed in BSA.
Salt-marsh harvest mouse	*Reithrodontomys raviventris*	FE, SE, CFP	Tidal salt marshes of San Francisco Bay and its tributaries. Requires tall, dense pickleweed (*Salicornia* sp.) for cover.	N	N	BSA located outside known range of species. Tidal salt marsh absent from BSA and vicinity.
American badger	*Taxidea taxus*	CSC	Open, dry habitats (e.g., grasslands) with friable soils.	N	N	No badger dens observed in BSA during reconnaissance-level surveys.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present (Y/N)	Species Present (Y/N/U)	Rationale

Status:
FE = federally endangered
FT = federally threatened
CH = federal critical habitat designated
SE = State endangered
ST = State threatened
SC = State candidate
SR = State rare
CSC = California Species of Special Concern
CFP = California Fully Protected Species
1B = California Rare Plant Rank 1B (rare, threatened, or endangered in California and elsewhere)
2 = California Rare Plant Rank 2 (rare, threatened, or endangered in California but more common elsewhere)
CEQA = impacts may be considered significant under CEQA

Source: LSA Associates, 2014

Special-status Animals. Based on a review of the California Natural Diversity Database (CNDDB), the USFWS online species list, and observed habitat conditions, LSA identified 21 special-status animal species as potentially occurring in the project vicinity (Table B). Species with ranges outside the upper Napa Valley and/or those requiring specific habitat conditions not present in the vicinity of the project area were eliminated from consideration and are not discussed further. Excluded species and the rationale for their exclusion include the following:

Suitable Aquatic Tidal Marsh/Bay/Delta Waterways Not Present

- Delta smelt (*Hypomesus transpacificus*) (Threatened)
- Central Valley steelhead (*Oncorhynchus mykiss*) (Threatened)
- Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) (Threatened)
- Sacramento River winter-run Chinook salmon (Endangered)
- California least tern (*Sternula antillarum browni*) (Endangered)
- Salt marsh harvest mouse (*Reithrodontomys raviventris*) (Endangered)

Six of the remaining 14 species (Conservancy fairy shrimp, California freshwater shrimp, bald eagle, northern spotted owl, tricolored blackbird, and American badger) are not expected to occur due to a lack of habitat.

The drainage channels parallel to Solano Avenue contain several pools and abundant freshwater marsh vegetation that provide suitable habitat for California red-legged frogs. However, LSA did not find any red-legged frogs during a protocol-level survey of the project area between June and August 2013. The species is typically considered extirpated from the Napa Valley (Mark Jennings, USFWS, pers. comm. with David Muth) and has not been documented from any locations within 9 miles of the project area. As such, California red-legged frog is presumed absent from the project area and vicinity.

Special-status Natural Communities. The CNDDB does not identify any special-status natural communities within 5 miles of the project area. As mentioned above, LSA observed approximately 15 stands (totaling 0.14 acres) of creeping ryegrass turfs in the project area. This vegetation type is recognized as a special-status natural community by the CDFW (CDFG 2010) and Napa County. The project area also supports approximately 7 acres of wetlands/freshwater marsh. This vegetation type is also considered as a special-status natural community by both the County and CDFW.

The riparian woodland along Dry Creek west of Solano Avenue is also considered a special-status natural community due to its habitat value for native wildlife and the limited distribution of native riparian plant communities in California.

Discussion

a) Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

Potentially Significant Unless Mitigation Incorporated. Potential impacts to special-status plant and wildlife species are described below.

Special-status Plants. As described above, Sanford's arrowhead has been observed growing in the Yountville Collector drainage channel north of Hoffman Lane during project surveys. On July 7, 2013, LSA observed that most of the vegetation within this channel reach, including most of the Sanford's arrowhead, had been cleared for purposes of channel maintenance. The species was not observed in any other portions of the channel. Project construction would not involve any vegetation clearing within the drainage channels, including at the known location of Sanford's arrowhead. As such, the proposed project would not result in impacts to this species.

Special-status Animals. The project area contains known or potential habitat for several special-status animal species, as described below.

Central California Coast steelhead. The Central California Coast (CCC) distinct population segment (DPS) steelhead is federally threatened and includes all naturally spawned populations of steelhead in coastal streams from the Russian River to Aptos Creek, and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers; and tributary streams to Suisun Marsh. CCC steelhead are known to occur in Dry Creek and may also occasionally occur in the northern portion of the Yountville Collector, which receives flow from Hinman Creek at its northern end. CCC steelhead are not expected to occur in the Salvador Collector due to the lack of year-round flows and the presence of an underground box culvert at its northern end, which would prevent upstream migration to any potential spawning habitat (which appears to be absent). Dry Creek is included in the San Pablo Hydrological Unit of NMFS-designated critical habitat for CCC steelhead, but neither the Yountville nor Salvador Collectors are included.

No construction would occur in the stream channel or bed of Dry Creek and thus no direct impacts on aquatic habitat are expected. Implementation of the SWPPP and associated BMPs (described below), in accordance with RWQCB guidelines, would control erosion and prevent construction-related runoff from entering Dry Creek and the Yountville Collector. These measures would preclude any potential water quality impacts on CCC steelhead. In addition, the following mitigation measure shall be implemented to minimize potential construction-related effects on steelhead:

> **Mitigation Measure BIO-1:** Construction activities associated with widening the existing Solano Avenue bridge over Dry Creek shall be limited to the non-migratory period for steelhead (May through October).

Foothill Yellow-legged Frog. The foothill yellow-legged frog (*Rana boylii*) is a California Species of Special Concern that occurs along open, sunny stream courses with riffles, pools, at least some cobble-sized substrate, and favors clear pools with slow currents, backwaters, or off-channel pools for egg laying and rearing of tadpoles. Although LSA has not observed any

foothill yellow-legged frogs in the project area to date, the reach of Dry Creek within the project area provides suitable physical conditions due to the presence of pools with undercut banks and cobble-sized substrate. However, Dry Creek is connected to the Napa River, which is known to support numerous introduced predators such as American bullfrog, warm water game fish, and crayfish. The project is not expected to impact foothill yellow-legged frog since no construction would occur in the stream channel or bed of Dry Creek.

Western Pond Turtle. Western pond turtle is a California Species of Special Concern. Pond turtles occur in a wide variety of aquatic habitats, including ponds, lakes, marshes, rivers, streams, and irrigation ditches that typically have a rocky or muddy bottom and contain stands of aquatic vegetation (Stebbins 2003). LSA did not observe any pond turtles during its protocol-level survey for California red-legged frog, which covered all potential aquatic habitats within the project area.

The project is expected to have minimal impact on western pond turtle aquatic habitat or turtles occurring in such habitat since most work would occur outside the drainage channels or streams. Culvert replacement work south of Wine Country Avenue would involve temporary work within the Salvador Collector (i.e., removal of existing concrete outfall apron and installation of new concrete culvert pipe) but no temporary or permanent fill of the channel is expected. If present, pond turtles nesting along the trail alignment could be impacted by construction activities. Grading and minor excavation activities could result in mortality of adult females and loss of egg clutches. Such impacts are unlikely, however, given the low habitat quality for nesting and the lack of pond turtle observations between June and August 2013 during the protocol-level red-legged frog survey.

Increased human use of the BSA due to the construction of a new pedestrian and bike path would further limit upland habitat suitability for western pond turtles, if present in the BSA. However, given that upland habitat quality adjacent to the drainage channels and streams is already compromised by existing human disturbance (e.g., vehicle traffic on unimproved maintenance road, weed abatement, railroad maintenance), the further reduction in upland habitat quality is not expected to be significant.

Implementation of the following mitigation measure would reduce potential impacts to western pond turtle to less than significant.

> **Mitigation Measure BIO-2:** The NCTPA shall implement the following measures to minimize potential construction-related impacts to western pond turtle:
>
> - At least 15 days prior to any ground disturbance, the NCTPA shall submit the names and qualifications of the proposed monitoring biologist(s) to CDFW for review and approval.
> - The CDFW-approved biologist shall conduct environmental awareness training for all contractors working adjacent to aquatic habitat during project construction. The training shall include a review of environmental laws and avoidance and minimization measures being implemented to reduce or avoid impacts on special-status species, including pond turtles. Training shall also be provided to any new workers who do not attend the initial training session prior to their beginning work.

- Exclusion fencing shall be installed along the upper banks of any drainage channel paralleling the work area (e.g., Yountville and Salvador Collectors) to prevent pond turtles from entering the work area. At the three stream crossings, the fencing will follow the top-of-bank and extend to the railroad tracks. The fencing shall consist of silt fabric (or similar material such as ERTEC E-Fence™) at least 3 feet high. The lower 6 inches of the fabric shall be buried in the ground to prevent animals from crawling under the fence. Orange plastic mesh construction fencing shall be installed around the outside perimeter (i.e., approximately 1 foot outside) of the silt fencing to identify its location (unless orange ERTEC E-Fence™ is used). Fencing shall remain in place and maintained in good condition throughout the construction period. Fence installation shall be conducted under the supervision of the CDFW-approved biologist.
- Within 24 hours of any construction adjacent to or within aquatic pond turtle habitat, the CDFW-approved biologist shall survey the work area for pond turtles. If any pond turtles are found in the work area, the biologist shall move them to nearby suitable habitat a minimum of 300 feet upstream or downstream (i.e., whichever is furthest away from current and future construction) of the work area. Pond turtle relocation activities would only be conducted under a CDFW 1602 Streambed Alteration Agreement or project-specific Memorandum of Understanding (MOU) authorizing such relocation activities. The biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photos) to assist him or her in determining whether translocated animals are returning to their original point of capture.
- After exclusion fencing has been installed, the CDFW-approved biologist will visit the work area(s) on a weekly basis to confirm that the fence is still functional and to document avoidance of aquatic habitat.
- Disturbance to existing grades and vegetation shall be limited to the actual work area and necessary access routes. Placement of all staging areas, roads, and other facilities shall avoid and limit disturbance to aquatic habitat.
- All construction-related holes shall be covered at the end of each work day to prevent entrapment of pond turtles.
- All fueling and maintenance of vehicles and other equipment and staging areas will occur at least fifty (50) feet from any riparian habitat or water body. The NCTPA shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the contractor shall provide written documentation that it has prepared a plan to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of appropriate measures to take should a spill occur.

Swainson's Hawk. Swainson's hawk is State-listed as threatened. LSA has not observed any Swainson's hawks in or near the project area, although the numerous trees provide suitable nest sites. The project area has limited habitat value for Swainson's hawk foraging. The loss of approximately 7 acres of annual grassland and ruderal vegetation due to trail construction does not constitute a significant impact on Swainson's hawk foraging habitat since the habitat value

of uplands within the project area for foraging Swainson's hawks is expected to be extremely low due to abundant ruderal vegetative cover and limited space over which to forage due to the presence of two heavily trafficked roads on either side as well as the Napa Valley Wine Train tracks. However, activities associated with construction of the proposed project could impact Swainson's hawk if they are nesting in the project area during construction.

Implementation of the following mitigation measures would reduce potential impacts to Swainson's hawk to less than significant:

Mitigation Measure BIO-3: The NCTPA shall implement the following measures to minimize construction-related impacts to Swainson's hawk:

- In the year of project construction, a qualified biologist shall survey the project area and adjacent lands for nesting Swainson's hawks using a slightly modified protocol adapted from the Swainson's Hawk Technical Advisory Committee's (SHTAC) *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*[18]. Although the surveys will cover the entire BSA and immediately adjacent lands, it is not logistically feasible to survey within 0.5 mile of the entire 6-mile trail alignment. Instead, the 0.5-mile search radius will only apply to those areas where removal of large trees (i.e., larger than 24 inches DBH) will occur. Four surveys shall be conducted: one during SHTAC survey period II (March 20 to April 5), two during survey period III (April 5 to April 20), and one during survey period V (June 10 to July 30). If construction is scheduled to commence in April or May, the period V survey may be substituted with an additional survey in period II or III. Survey period dates may be adjusted based on the nesting chronology of previous Swainson's hawk nests in the lower Napa Valley.
- If any active Swainson's hawk nests are found in or within 0.25 mile of the work area(s), the biologist shall determine an appropriate sized buffer around the nest in which no work will be allowed until the young have fledged or the nest fails. The size of the buffer shall initially be 0.25 mile as per standard CDFW requirements, but may be reduced to 300 feet if regular (bi-weekly or weekly) nest monitoring by a qualified biologist demonstrates that the nesting pair are not disturbed by construction activities outside the buffer. Given the existing disturbance levels on both sides of the project alignment (i.e., Highway 29 and Solano Avenue traffic, channel and railroad maintenance activities, pedestrians and cyclists along Solano Avenue, four daily passes by Napa Valley Wine Train), it is likely that any Swainson's hawks choosing to nest in the project area would tolerate moderate disturbance levels. The buffer may be further reduced to 100 or 200 feet as the nesting period commences since adult hawks are much more tolerant of disturbance once the young have hatched.

Mitigation Measure BIO-4: If any Swainson's hawks are found nesting in trees proposed for removal during the above-described survey, the NCTPA shall apply for a

[18] Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. May 31. http://www.dfg.ca.gov/wildlife/nongame/docs/swain_proto.pdf (accessed September 11, 2013).

Fish and Game Code Section 2081 incidental take permit (ITP) from CDFW pursuant to CESA. As part of the ITP application, the NCTPA and/or its representative shall prepare a mitigation plan that identifies compensatory measures for the loss of the nest tree(s), such as replacement via replanting on or off site or protection of known nest trees. The ratio of new trees planted to trees impacted shall be based on up-to-date knowledge of Swainson's hawk habitat use in the Napa Valley as well as the location of proposed mitigation activities.

Loggerhead Shrike and While-Tailed Kite. The white-tailed kite (*Elanus leucurus*) is designated by the CDFW as a Fully Protected Species. This species nests in densely foliaged trees and large shrubs located near suitable foraging habitat (e.g., grasslands, marshes, agricultural fields). Loggerhead shrike (*Lanius ludovicianus*) is a California Species of Special Concern that occur in open areas with scattered shrubs, trees, posts, fences, utility lines, and other perches. Although neither of these species has been observed in the project area, both are known to breed in the Napa Valley (Berner et al. 2003) (although shrikes are less common) and the numerous trees within the project area provide suitable nest sites.

If conducted during the nesting season (February 1 to August 31), vegetation removal activities could directly impact the above special-status bird species by removing trees or shrubs that support active nests. Construction-related disturbance could also indirectly impact nesting birds by causing adults to abandon nests, resulting in nest failure and reduced reproductive potential. Implementation of the following mitigation measures would reduce potential impacts to loggerhead shrike and white-tailed kite to less than significant.

Mitigation Measure BIO-5: To the extent feasible, vegetation removal activities shall occur during the non-nesting season (September 1 to January 31). For any construction activities conducted during the nesting season, a qualified biologist shall conduct a preconstruction nest survey of all trees and other suitable nesting habitat in and within 250 feet of the limits of work. The survey shall be conducted no more than 15 days prior to the start of work. If the survey indicates the presence of nesting birds, the biologist shall determine an appropriate sized buffer around the nest in which no work would be allowed until the young have successfully fledged (or the nest has been abandoned). The size of the nest buffer shall be determined by the biologist and shall be based on the nesting species and its sensitivity to disturbance. In general, buffer sizes of up to 250 feet for raptors and 50 feet for other birds should suffice to prevent substantial disturbance to nesting birds, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

Pallid Bat. Pallid bat (*Antrozous pallidus*) is a California Species of Special Concern that inhabits low-elevation arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and higher elevation coniferous forests. LSA biologist David Muth observed several Brazilian free-tailed bats (*Tadarida brasiliensis*) and pallid bats (*Antrozous pallidus*) roosting under the Solano Avenue bridge over Dry Creek during the California red-legged frog nighttime survey on June 10, 2013. The bridge does not contain any expansion joints or other enclosed spaces suitable for pallid bat maternity or daytime roosts. Despite the abundance of oaks within the project area, LSA did not observe any large tree cavities suitable for bat roosting during the field surveys.

Implementation of the following mitigation measure would reduce potential impacts to pallid bat to less than significant:

> **Mitigation Measure BIO-6:** Work activities shall not occur on or within 100 feet of the Solano Avenue bridge over Dry Creek between sunset and sunrise. Airspace access to the bridge shall remain approximately the same, and bird-exclusion netting shall not be used. No lighting that would illuminate the underside of the bridge shall be used. Combustion equipment, such as generators, pumps, and vehicles are not to be parked, nor operated, under or adjacent to the bridge. Personnel are not to be present under the bridge during the evening or at night.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Potentially Significant Unless Mitigation Incorporated. Creeping ryegrass turfs have a State rarity ranking of S3 in the CDFW list of vegetation alliances and are thus considered a special-status natural community. This vegetation type occurs on poorly drained floodplains, drainage and valley bottoms, mesic flat to sloping topography, and marsh margins. Creeping ryegrass is a widespread species that is a component of many vegetation alliances and is a common understory plant in riparian forests. Approximately 15 stands totaling approximately 0.138 acres of creeping ryegrass turfs are located in the project area between Vineyard View Drive and the Redwood Road Park and Ride. All of these stands have at least 50 percent cover of creeping ryegrass. Although five creeping ryegrass stands are located far enough outside the trail alignment to be avoided, complete avoidance of the remaining stands is not feasible due to space limitations.

Trail construction will directly impact approximately 0.084 ac of creeping ryegrass turfs. In addition, trail construction adjacent to existing stands may result in indirect impacts to this community by creating a new source of bare soil that could easily be colonized by invasive weeds. Such weeds could spread into the creeping ryegrass stands and permanently alter its species composition. Eventually some of the stands may disappear as creeping ryegrass is replaced by non-native invasive plants. Implementation of the following mitigation measures would reduce potential impacts to this sensitive natural community to less than significant.

> **Mitigation Measure BIO-7:** To compensate for the loss of 0.084 ac of creeping ryegrass turfs, the NCTPA will plant 0.084 ac of replacement grassland (1:1 ratio) elsewhere within the BSA pursuant to Napa County's "no net loss" of sensitive biotic communities policy (General Plan Policy CON-17). Newly planted creeping ryegrass stands will be installed with creeping ryegrass plugs salvaged from impacted stands. The entire replanting effort shall be conducted with approximately 5-inch by 5-inch plugs due to increased likelihood of survival. The creeping ryegrass replanting effort shall be conducted by following a restoration plan prepared by a qualified restoration ecologist familiar with native grassland restoration techniques in California. The plan shall include the following components, at a minimum:

- Salvage and/or recovery requirements, including clearly defined goals focusing on plant establishment (stability, succession, reproduction) and non-native species control measures.
- Locations and procedures for replanting of salvaged plant material including seeds.
- Specification of a three-year post-construction maintenance period (including irrigation when required), and monitoring program by a qualified restoration team to ensure that project goals and performance standards are met. The monitoring program shall include provisions for remedial actions to correct deficiencies, as needed. The NCTPA shall submit annual reports and a final report subject to approval by the County to document the progress of the revegetation effort. If revegetation is not successful, an additional period of correction and monitoring shall be specified.

Mitigation Measure BIO-8: To prevent construction workers and equipment from entering creeping ryegrass stands, orange plastic construction fencing shall be installed along the edges of the stands so that they are easily visible to workers as Environmentally Sensitive Areas (ESA). The fencing shall be installed under the guidance of a qualified botanist practiced in the identification of creeping ryegrass, native bunchgrasses, and grassland communities.

Wetlands are also considered sensitive natural communities by the County and the CDFW as described in their *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.* As described further in Response IV(c) below, approximately 7.003 acres of wetlands have been identified in the project area.

To minimize impacts on jurisdictional waters and aquatic wildlife habitat, the proposed project has been designed to avoid filling the flood control channels by using prefabricated clear-span truss bridges at the two channel crossings (Yountville and Salvador Collector). Installation of the bridges would not require any work or equipment within the ordinary high water mark (OHWM) of the stream channels. Removal of a 155-square foot concrete apron and replacement with a concrete culvert of the same footprint immediately south of Wine Country Avenue would require work within the Salvador Collector channel. Replacement of the concrete apron with a culvert would be a regulated activity that would require permits from the U.S. Army Corps of Engineers (Corps) (Clean Water Act [CWA] Section 404), Regional Water Quality Control Board (RWQCB) (CWA Section 401), and CDFW (Fish and Game Code Section 1602 Streambed Alteration Agreement). No temporary or permanent fill beyond the existing concrete apron footprint (e.g., no loss of wetland acreage) is expected. Access roads and construction staging areas would be included in the permitted activity. Work associated with replacement of the concrete apron shall be consistent with regulatory requirements as specified in the permits and as such would not result in impacts to jurisdictional waters.

Trail construction would not result in any permanent or temporary fill of jurisdictional waters. However, construction may result in indirect impacts such as excess sediment or pollutants entering the drainage channels and Dry Creek if not contained properly. Implementation of the mitigation measures below would reduce such impacts to less than significant.

Mitigation Measure BIO-9: The contractor shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with RWQCB guidelines. The SWPPP shall include the following major components, at a minimum:

- A comprehensive erosion and sediment control plan, depicting areas to remain undisturbed and providing specifications for revegetation of disturbed areas.
- A list of potential pollutants from building materials, chemicals, and maintenance practices to be used during construction and the specific control measures to be implemented to minimize release and transport of these constituents in runoff.
- Specifications and designs for the appropriate best management practices (BMPs) (see below) for controlling drainage and treating runoff in the construction phase.
- A program for monitoring all control measures that includes schedules for inspection and maintenance and identifies the party responsible for monitoring.
- A site map that locates all water quality control measures and all restricted areas to be left undisturbed.

Mitigation Measure BIO-10: BMPs will be implemented as recommended or required by the RWQCB and the County to protect water quality. These measures will include, but are not limited to, the following: (1) a moratorium on grading during a rain event; (2) a requirement that erosion and sediment control measures be installed prior to unseasonable rain storms; (3) prohibiting erosion or sediment control measures within vegetated areas; (4) limiting the extent of disturbed soil to the minimum area that can be protected prior to a forecasted rain event and the minimum area needed to complete the proposed action; (5) delineating and protecting environmentally sensitive areas to prevent construction impacts; (6) installing fiber rolls as appropriate to control sediment and erosion; (7) spill and litter control (e.g., installing temporary impervious debris containment netting to prevent cement and/or debris from falling into Dry Creek during bridge widening work); (8) control of fuels and other hazardous materials; (9) management of temporary sewage facilities to prevent water quality impacts; (10) liquid waste management; and (11) preserving existing vegetation wherever possible.

Mitigation Measure BIO-11: All jurisdictional areas located adjacent to, but outside of, the construction footprint shall be avoided during construction and no fill shall be allowed to enter these areas. Exclusion fencing shall be installed to mark the limits of the construction footprint. A biological monitor shall oversee the installation of the fencing and monitor the work area on a weekly basis to ensure avoidance of aquatic habitat.

Mitigation Measure BIO-12: During project construction, no soil or other construction materials shall be stored in or allowed to enter the drainage channels or Dry Creek. All stockpiled fill and other materials shall be kept at least 50 feet from the channel edges.

c) Would the project have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potentially Significant Unless Mitigation Incorporated. A preliminary wetland delineation by LSA (2013) and subsequent field verification with the Corps identified 7.003 acres of waters of the United States within the project area, including 2.685 acres of other waters (2.502 acres of streams and 0.183 acres of culverts) and 4.318 acres of wetlands (i.e., wetland swale, including Yountville Collector and Segment C of the Salvador Collector). The 4.318 acres of wetland swale consist of portions of the Yountville and Salvador Collectors that are dominated by freshwater marsh vegetation (i.e., cattails and tules); LSA originally identified these areas as other waters of the United States (channelized stormwater collector channels) but the Corps requested that they be identified as wetlands during its verification site visit.

As described in Response IV(b) above, trail construction would result in indirect impacts to jurisdictional waters such as excess sediment or pollutants entering drainage channels and Dry Creek. Implementation of Mitigation Measures BIO-9 through BIO-12 described above would reduce potential impacts to jurisdictional waters to less than significant.

d) Would the project 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 Impact. Wildlife species expected to occur in the project area are those adapted to urban and agricultural semi-rural habitats of the Central Coast Range bioregion. The numerous oak and blue gum trees in the project area provide nesting and foraging habitat for woodland species such as downy woodpecker (*Picoides pubescens*), Nuttall's woodpecker (*Picoides nuttallii*), western scrub-jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*), white-breasted nuthatch (*Sitta carolinensis*), western bluebird (*Sialia mexicanus*), and American robin (*Turdus migratorius*). The same trees are also likely to provide stopover foraging habitat for common Nearctic-Neotropical migrant species such as Pacific-slope flycatcher (*Empidonax difficilis*), warbling vireo (*Vireo gilvus*), yellow warbler (*Setophaga petechia*), black-throated gray warbler (*S. nigrescens*), and hermit warbler (*S. occidentalis*). Dense stands of cattails and thistles provide nesting habitat for common species such as song sparrow (*Melospiza melodia*), red-winged blackbird (*Agelaius phoeniceus*), and lesser goldfinch (*Spinus psaltria*). Although no raptor nesting has been observed to date, the larger trees within the project area provide nesting habitat for red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*B. lineatus*), Cooper's hawk (*Accipiter cooperi*), great horned owl (*Bubo virginianus*), and American kestrel (*Falco sparverius*).

Two amphibian and one reptile species have been observed in the project area: Sierran treefrog (*Pseudacris sierra*), American bullfrog (*Lithobates catesbeiana*), and western fence lizard (*Sceloporus occidentalis*). Additional amphibians and reptiles expected to occur include arboreal salamander (*Aneides lugubris*), California slender salamander (*Batrachoseps attenuatus*), western toad (*Anaxyrus boreas*), southern alligator lizard (*Elgaria multicarinatus*), western skink (*Plestidon skiltonianus*), racer (*Coluber constrictor*), gopher snake (*Pituophis catenifer*), common garter snake (*Thamnophis sirtalis*), common kingsnake (*Lampropeltis getula*), and Pacific rattlesnake (*Crotalus oreganus*).

Evidence (i.e., burrows or runways) of Botta's pocket gopher (*Thomomys bottae*) and California vole (*Microtus californica*) were observed throughout the project area. As described

above, several Brazilian free-tailed bats (*Tadarida brasiliensis*) and pallid bats (*Antrozous pallidus*) were observed roosting under the Solano Avenue bridge over Dry Creek. Additional common mammal species that likely forage in and move through the BSA include Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), northern raccoon (*Procyon lotor*), coyote (*Canis latrans*), and black-tailed deer (*Odocoileus hemionus*).

The proposed project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of wildlife nursery sites. Impacts to wetlands and drainages on the project site would generally be avoided (see Section (c) above). The proposed trail alignment would be located at grade level, and therefore, would not substantially obstruct wildlife movement. The nests of all native bird species are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. Impacts to nesting birds would be mitigated through implementation of Mitigation Measure BIO-5 described above.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Potentially Significant Unless Mitigation Incorporated. The proposed trail alignment is subject to the local policies and ordinances of three jurisdictions: City of Napa, Napa County, and the Town of Yountville. The proposed project's consistency with these policies is detailed below.

City of Napa Protected Trees. According to the tree inventory prepared for the proposed project,[19] no Significant Trees as identified on the City's Registry of Significant Trees[20] are present in the project area.

Approximately 29 trees within the Napa city limits, including 10 black locusts (*Robinia pseudoacacia*), two silver wattles (*Acacia dealbata*), two tree-of-heaven (*Ailanthus altissima*), one Japanese privet (*Ligustrum japonicum*), two Monterey cypress (*Cupressus macrocarpa*), two walnuts (*Juglans* sp.), one Canary Island date palm (*Phoenix canariensis*), three Fremont cottonwoods, four valley oaks, and two unknown species (surveyed but not included in arborist report) would need to be removed. All of these trees presumably qualify as street trees under the City municipal code since they occur in the public right-of-way. Implementation of the following mitigation measure would reduce impacts to City of Napa trees to less than significant.

> **Mitigation Measure BIO-13:** Prior to removing any street trees, the NCTPA shall complete and submit a Street Tree Pruning and Removal Application to the City of Napa Parks & Recreation Services Department. Approval of tree removals requires the replanting of new trees within six (6) months of the removal. The new trees shall be selected by the NCTPA from the City's Master Street Tree list and planted to City specifications.

[19] Pramuk, Bill, 2013. Arborist Report, Vine Trail Solano, Napa. Prepared for Reichers Spence, Inc. October.
[20] City of Napa, 2011. City of Napa Registry of Significant Trees. http://www.cityofnapa.org/images/CRD/Trees/Info/significanttreeregistry_revised80211.pdf (Accessed September 4, 2013).

Napa County Oak Trees. The deciduous oak woodland stands in the northern portion of the project area contain numerous native oak species that have been prioritized for protection under Policy CON-24 of the Napa County General Plan[21].Approximately 35 valley oaks and 2 live oaks would need to be removed from portions of the project area within unincorporated Napa County. The removal of oaks would conflict with Napa County General Plan Policy CON-24, which requires mitigation for oak woodland loss at a 2:1 ratio. Specifically, the County requires mitigation in the form of preservation of oak woodlands, additional avoidance or minimization measures, or enhancement through replanting and/or management. Implementation of the following mitigation measures would reduce impacts to Napa County oak trees to less than significant:

Mitigation Measure BIO-14: The trail has been designed to avoid protected native trees as much as possible, with large valley oaks given the highest priority for protection. The project shall implement all tree protection specifications recommended by the consulting arborist and shall be included on all construction plans. These tree protection specifications include:

- The general contractor and grading contractor are required to meet with the project consulting arborist at the site prior to beginning work to review all work procedures, access routes and tree protection measures.
- The boundaries of all tree protection zones (TPZs) shall be staked in the field.
- Trees to be removed that have branches extending into canopies of trees to remain must be removed by a qualified arborist, not by demolition or construction contractors.
- Any necessary brush clearing within TPZs shall be accomplished with hand-operated equipment.
- Trees removals shall be performed so as to prevent damage to branches, trunks and roots of protected trees.
- Trees to be removed from within a TPZ shall be removed by a qualified arborist. Stumps shall be cut low as possible. If stump grinding is preferred by the owner or contractor, grinding shall not be deep enough to damage woody roots of adjacent protected trees.
- All downed brush and trees shall be removed from TPZs either by hand or with equipment sitting outside the TPZ, by lifting the material out, not by skidding across the ground.
- Chipped brush and wood from removed trees or pruning may be placed in TPZs up to 6 inches deep and not piled against tree trunks.
- Roots or other underground features to be removed where a TPZ would be disturbed shall be done so as to minimize disturbance. Equipment shall operate from outside

[21] Napa County, 2009.

the TPZ. The project consulting arborist shall be on site during all operations within the TPZ to monitor activity.

- Any pruning required for site preparation shall be performed by a qualified arborist and in accordance with current professional standards.[22]
- A 4 foot 'HiVis'[23] or comparable barrier fence, affixed with locking zip-ties to steel T posts shall be erected to fully enclose TPZs, or partially enclose them as indicated on *Grading and Drainage Plan: Tree Protection Specifications.*
- Any tree damage resulting from grading or other site preparation work shall be reported to the project consulting arborist within 6 hours so that remedial action can be taken. Timeliness is critical.
- If temporary access pathways for vehicles must pass over TPZs, a bed of 6 inches of coarse wood chip mulch shall be installed to protect the soil and roots. If the soil is wet or heavy vehicles are needed, the project consulting arborist may require placement of protective geogrid[24] under the mulch.
- The general contractor and subcontractors are required to meet on site with the project consulting arborist to review all work procedures, access routes, storage areas and tree protection measures.
- Tree protection fences erected before site grading shall remain in place throughout the construction phase and may not be relocated, detached or removed without written permission of the project consulting arborist.
- Construction trailers, traffic, parking and storage areas must remain outside of fenced areas at all times.
- All underground utilities and drainage or irrigation lines shall be routed outside the TPZs. If lines must traverse a TPZ they shall be tunneled or bored under trees. If tunneling or boring is not feasible, alternative methods may be used with consultation and approval by the project arborist.
- No materials, equipment, spoil or waste or washout water may be deposited, stored, or parked within a TPZ.
- Additional tree pruning required for clearance during construction must be performed by a qualified arborist and not by construction personnel.
- Any herbicides or soil stabilization chemicals placed under paving or roadways must be safe for use around trees and labeled for that use. Hydrated lime shall not be used for road base stabilization within 50 feet of trees. Any pesticides used on site must be tree-safe and not easily transported by water.
- If injury should occur to any tree during construction, it should be evaluated as soon as possible by the project consulting arborist so that appropriate treatments can be applied in a timely fashion. Tagged tree numbers should be specified.

[22] Pruning standards set forth in ANSI A300 Part 1-2008, *Pruning* and ISA Best Management Practices *Tree Pruning* 2008.
[23] Orange, plastic mesh barrier fencing, Forestry Suppliers Inc.
[24] Geogrid: plastic mesh such as Tensar TriAx TX 160 Geogrid

- Any grading, trenching, construction, demolition or other work that is expected to encounter tree roots must be monitored by the project consulting arborist. Tagged tree numbers should be specified.
- The project consulting arborist may require the general contractor to apply supplementary irrigation for protected trees that have received root damage in the course of grading or construction work.
- Erosion control devices shall be installed to prevent siltation and erosion within TPZs where deemed necessary by the project consulting arborist.
- Before grading, pad preparation, or excavation for foundations, footings, walls, or trenching, any tree with a TPZ within or adjacent to such a location shall be evaluated by the project consulting arborist and contractor in order to establish a plan that will prevent or minimize tree damage. Such plans may include manual or pneumatic excavation[25] to expose and evaluate roots, alternative construction techniques, root pruning supervised by the project arborist.
- Any woody roots damaged during grading and construction shall be exposed back to sound tissue by the contractor and evaluated by the project consulting arborist for further action, which might include cleanly severing damaged roots back to tight cambium or excising damaged bark.
- If temporary access pathways for vehicles must pass over a TPZ, a bed of 6 inches of coarse wood chip mulch shall be installed to protect the soil and roots. If the soil is wet or heavy vehicles are needed, the arborist may require placement of protective geogrid under the mulch.
- Spoil from trenches or other excavations shall not be placed within TPZs.
- No burn piles, debris, garbage or other waste materials shall be placed within TPZs.
- Maintain fire-safety around trees. No heat sources, flame, ignition sources or smoking is allowed near mulch piles or trees. To prevent spontaneous combustion, fresh wood and brush chip piles shall not exceed 3 feet in height and 6 feet in width.
- Where construction of the Vine Trail is necessary within TPZs, grade cuts should not exceed 6 inches in depth.
- Where roots interfere with grade cuts or construction, roots up to 4 inches in diameter may be cleanly severed with a sharp saw. Resulting disconnected roots and other woody debris shall be removed from the excavation.
- Where roots over 4 inches in diameter interfere with grading within a TPZ every effort shall be made to preserve them. Options may include carefully removing the soil above and around them and backfilling with road base gravel.

Removal of any oaks infected by the Sudden Oak Death pathogen *Phytophthora ramorum* shall follow the California Oak Mortality Task Force's *Sudden Oak Death*

[25] Pneumatic excavation: Air Spade or Air Knife, requiring a trailer mounted air compressor.

Guidelines for Arborists, including limiting the disposal of infested material to within Napa County.

Mitigation Measure BIO-15: To compensate for the removal of oak trees in unincorporated Napa County, the NCTPA shall replace any removed trees with two in-kind replacement oak plantings elsewhere in the project area for every tree removed (i.e., 2:1 mitigation ratio), consistent with Policy CON-24 of the Napa County General Plan.

Town of Yountville Trees. Seven (7) trees within the project area occur within the Town of Yountville limits: one Oregon ash, (*Fraxinus latifolia*), one olive (*Olea europea*), one willow (*Salix laevigata*), two coast live oaks, one plum (*Prunus* sp.), and one ornamental ash (*Fraxinus* sp.) Only the Oregon ash, willow, and oaks are native trees protected under the Town's municipal code.[26] All seven trees within the Town limits, including the three native species would need to be removed due to conflicts with the trail alignment. Implementation of Mitigation Measure BIO-14, described above, and the following mitigation measure would reduce potential impacts to Town of Yountville trees to less than significant.

Mitigation Measure BIO-16: Prior to removing the native trees from within Town limits, the NCTPA shall apply to the Town Planning Officer for a tree permit pursuant to Section 12.16.010 of the municipal code. Replacement plantings (one for each removed tree) shall be selected from the Town's Master Tree List.

f) Would the project 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 proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

[26] Town of Yountville, 2003.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	❑	■	❑	❑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	❑	■	❑	❑
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❑	■	❑	❑
d) Disturb any human remains, including those interred outside of formal cemeteries?	❑	■	❑	❑

Affected Environment:

This section assesses potential cultural resource impacts that may result from implementation of the proposed project. Specifically, this analysis addresses the issues identified in Question V (a-d) of the Environmental Checklist found in Appendix G of the *CEQA Guidelines* and listed above. Broadly speaking, the impact scenarios most germane to the proposed project are related to pre-contact archaeology (e.g., the disturbance of archaeological deposits associated with Native American inhabitation of the project site) and human remains (e.g., the disturbance of Native American burials and related mortuary remains). Impacts to paleontological resources could also occur.

LSA conducted background research, consisting of a records search and Sacred Lands File research, to inform the baseline conditions for cultural resources in the project area. The research was done to identify previously recorded cultural resources in and adjacent to the project site that may be subject to project-related impacts. On October 20, 2014, LSA staff conducted a records search (NWIC #14-0517) for the project site at the Northwest Information Center (NWIC), Rohnert Park, California. The NWIC is the official state repository for cultural resource records and reports in a 16-county area, including Napa County. The records search indicates that approximately 5 percent or less of the project site has been previously studied for cultural resources. One cultural resource, P-28-000966, the Napa Valley Southern Pacific Railroad, has been identified in the project site.

On October 20, 2014, LSA staff submitted a Sacred Lands File search request with the Native American Heritage Commission (NAHC). On October 31, 2014, NAHC Associate Government Program Analyst Katy Sanchez responded in a facsimile transmission and stated that "The search indicates the potential of Native American cultural resources in the Rutherford and Yountville Quads that may be impacted. For specific information regarding the sites in these areas, please contact the Mishewal-Wappo Tribe of Alexander Valley for information." LSA contacted Mishewal-Wappo Chairperson Gabaldon and on November 14, 2014, Chairperson Gabaldon emailed a map to LSA that showed an arrow pointing toward the project site at Vineyard View Drive with the message "Ka'lmus Wappo Village." As a result of receiving this information, LSA conducted an additional records search (NWIC #14-0650) and background research to obtain previously recorded information about

the location of "Ka'lmus." McClellan (1953) identifies the Wappo settlement of "Kaimus" to the north of Yountville and the project site, and Sawyer (1978) identifies a Wappo settlement called "Caymus" at the same general location of "Kaimus."

General Archaeological Sensitivity. The project site is mapped as sensitive for buried prehistoric archaeological deposits as it is situated in a geologic setting that has been shown to contain buried archaeological cultural resources (Meyer and Rosenthal 2007). Archaeological cultural resources may be present in the project site at the location identified by the Mishewal-Wappo tribe as "Ka'lmus."

Discussion:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Potentially Significant Unless Mitigation Incorporated. The proposed project would excavate and grade in areas that have been disturbed by excavation and grading for roadways, a railroad, underground utilities including water, gas, and communications, overhead utilities, and storm water drainage facilities. Excavation in these areas has a low likelihood of impacting previously intact archaeological deposits due to prior disturbance, except at the location identified by the Mishewal-Wappo tribe as "Ka'lmus,"where archaeological cultural resources may be present at any depth.In addition, the locations of the piles at Dry Creek also have a higher likelihood of containing previously undisturbed archaeological deposits due to the greater depth of the piles. Such archaeological deposits, if intact, may qualify as historical resources under Public Resources Code (PRC) §21084.1 due to potential eligibility for inclusion in the California Register of Historical Resources (CRHR). If project construction encounters and disturbs archaeological deposits that qualify as historical resources, this would result in a material impairment of the deposits' ability to convey their significance (i.e., diminish their scientific data value) and result in a significant impact under *CEQA Guidelines* §15064.5(b).

The implementation of Mitigation Measure CULT-1, described below, would mitigate this potential impact to less than significant.

Mitigation Measure CULT-1: A qualified professional archaeologist shall monitor the spoils produced during augering at Dry Creek and all ground-disturbing activities at the location identified by the Mishewal-Wappo tribe as "Ka'lmus" within 250 feet of Vineyward View Drive. The monitoring shall continue until the pile augering is complete, grading and excavation at the location of "Ka'lmus" is complete, or until the monitoring archaeologist, based on field observations, is satisfied that there is no likelihood of encountering intact archaeological deposits.

If prehistoric or historic-period archaeological deposits are identified during the monitoring, or during construction in portions of the project site *not* being monitored, project-related impacts to such resources shall be avoided, if feasible. An attempt at impact avoidance shall be undertaken in consultation with the monitoring archaeologist, or an archaeologist shall be retained to provide recommendations if the discovery is made in the non-monitored portions of the project site. If avoidance is not feasible, the deposits shall be evaluated for their CRHR eligibility. If the deposits are not eligible, a

determination shall be made as to whether they qualify as a "unique archaeological resource" under requirements and definitions of *CEQA Guidelines* §15064.5 (c) and PRC §21083.2.

If the evaluation determines that the deposit is neither a historical nor unique archaeological resource, the avoidance of potential impacts to the deposit is not necessary. If the deposit is eligible, impacts to the resource shall be mitigated. Mitigation may consist of excavating the archaeological deposit in accordance with a data recovery plan (see *CEQA Guidelines* §15126.4(b)(3)(C)) developed in consultation with descendant community representatives; recording the resource; preparing a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate. Upon completion of the evaluation and, if necessary, mitigation, the archaeologist shall prepare a draft report to document the methods and results of the investigation(s). The draft report shall be submitted to the Napa County Transportation and Planning Agency, the descendant community involved in the investigation(s), and the Northwest Information Center.

Mitigation Measure CULT-1 would mitigate this potential impact to a less-than-significant level by pursuing impact avoidance through monitoring to identify archaeological deposits prior to their disturbance or destruction. In the event that avoidance is not feasible, the actions described above would mitigate the impact to a sensitive resource by recovering, through documentation and excavation, the scientifically consequential data contained in the deposit that would otherwise be lost due to construction-related disturbance. Mitigation would be done in consultation with descendant communities that attach religious or cultural significance to the deposits. The utilization of the approach described in Mitigation Measure CULT-1 would offset the damage to the resource by the realization of its data potential, which justifies its CRHR eligibility, through scientific excavation and analysis.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Potentially Significant Unless Mitigation Incorporated. The sensitivity statement and discussion presented above, applies here, as well. The project site is mapped as sensitive for buried prehistoric archaeological deposits as it is situated in a geologic setting that has been shown to contain buried archaeological cultural resources. Such deposits, if intact, may qualify as historical resources under PRC §21084.1 due to potential eligibility for inclusion in the CRHR. If they so qualify, they shall be treated as historical resources consistent with *CEQA Guidelines* §15064.5(c)(1-2). If the deposits do not so qualify but do qualify as unique archaeological resources as defined in PRC §21083.2, then their disturbance by project construction would result in a material impairment of the deposits' ability to convey their significance (i.e., diminish their scientific data value) and result in a significant impact under *CEQA Guidelines* §15064.5(b).

The implementation of Mitigation Measure CULT-1, described previously, would mitigate this potential impact to a less than significant level.

As is the case with the previous discussion, Mitigation Measure CULT-1 would mitigate this

potential impact to a less than significant level by pursuing impact avoidance through archaeological monitoring. In the event that avoidance is not feasible, the actions described above would mitigate the impact to a sensitive resource by recovering, through documentation and excavation, the scientifically consequential data contained in the deposit that would otherwise be lost due to construction-related disturbance. Mitigation would be done in consultation with descendant communities that attach religious or cultural significance to the deposits. The utilization of the approach described in Mitigation Measure CULT-1 would offset the damage to the resource by the realization of its data potential, which justifies its CRHR eligibility, through scientific excavation and analysis.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Unless Mitigation Incorporated. The paleontological sensitivity of the project site was assessed by reviewing *Flatland Deposits – Their Geology and Engineering Properties and Their Importance to Comprehensive Planning* (Helley et al. 1979). The southern portion of the project site consists of Pleistocene Epoch (2 million years ago to 11,800 years ago) alluvium. This alluvium may contain paleontological (fossil) resources. There is little likelihood of encountering intact paleontological resources during grading and excavation to a depth of approximately 2 feet below ground surface. At depths below 2 feet, there is a greater likelihood of encountering such resources. Should such resources, if present and intact, be encountered and disturbed by project construction, then a significant impact under CEQA would occur.

The implementation of Mitigation Measure CULT-2, described below, would mitigate this potential impact to a less than significant level.

> **Mitigation Measure CULT-2:** Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with Napa County Transportation and Planning Agency representatives, and make recommendations for the treatment of the discovery. If the find is determined to be significant, and project activities cannot avoid impacting the resource, the impact to the resource shall be mitigated in accordance with the recommendations of the consulting paleontologist. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations of the investigation shall be prepared and submitted to the Napa County Transportation and Planning Agency, and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

Mitigation Measure CULT-2 would mitigate this potential impact to a less-than-significant level by incorporating impact avoidance through on-site evaluation by a qualified paleontologist. In the event that avoidance is not possible, the mitigation would treat the potential loss of a sensitive resource by recovering, through documentation and excavation, the

scientifically consequential data represented by the fossil discovery that would otherwise be lost due to construction-related disturbance. In this way, the damage to the resource would be offset by the realization of its data potential.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Potentially Significant Unless Mitigation Incorporated. The sensitivity statement and discussion presented in Impact Question A, above, applies to this scenario, as well. Due to the project site's sensitivity for buried archaeological cultural resources, the project site is considered sensitive for the potential occurrence of Native American burials. For descendant communities, such burials represent a physical, tangible connection to their ancestors and are, therefore, imbued with a traditional cultural significance. Accordingly, should such burials be present in the project site and be discovered after project construction commences, such an encounter could disturb the sanctity and physical integrity of the graves and any potential items of cultural patrimony, resulting in a significant impact under CEQA.

The implementation of Mitigation Measure CULT-1, described previously, and CULT-3, described below, would mitigate this potential impact to a less-than-significant level. Mitigation Measure CULT-3 is intended to address the potential occurrence of human remains *after* archaeological monitoring. The potential for encountering human remains during archaeological monitoring would be addressed by Mitigation Measure CULT-1.

> **Mitigation Measure CULT-3:** If human remains are encountered during project construction, work within 25 feet of the discovery shall be redirected and the Napa County Coroner notified immediately. At the same time, the archaeologist who served as monitor or consulting archaeologist during the implementation of Mitigation Measure CULT-1 shall be contacted to assess the situation, in consultation with the descendant community also involved with the pre-construction testing, as well as the Coroner's representative. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD), which will likely be the representative of the descendant community already involved, to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the investigation's methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The draft report shall be submitted to the Napa County Transportation and Planning Agency, the descendant community involved in the treatment of the resources, and the Northwest Information Center.

Mitigation Measures CULT-1 and CULT-3 would mitigate this potential impact to a less-than-significant level by pursuing impact avoidance through collaborative consultation and co-management of human burial impacts with descendant community representatives. In the event that avoidance is not feasible, the project would treat the potential disturbance of human remains in accordance with the regulatory requirements of the procedures described in

Mitigation Measure CULT-3, above, which parallel the core requirements of California Health and Safety §7050.5. This treatment would address the disposition of the remains in a way that respectfully incorporates the wishes of the descendant community representatives.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to 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 risks to life or property?	❑	❑	■	❑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	❑	❑	❑	■

Affected Environment

A Geotechnical Investigation[27] was prepared, which summarizes subsurface investigation, laboratory soils testing, engineering analysis, and geotechnical design recommendations for the proposed project. The following summarizes the results of the geotechnical investigation.

Napa County lies within the Coast Ranges geomorphic province of California, partially characterized by its active seismicity and abundant landsliding and erosion. The regional bedrock geology consists

[27] Miller Pacific, 2013. Geotechnical Investigation, Vine Trail – Oak Knoll District, Napa, California. October.

of complexly folded, faulted, sheared, and altered sedimentary, igneous, and metamorphic rock of the Jurassic-Cretaceous age (65-190 million years ago) Franciscan Complex. Within central and northern California, the Franciscan rocks are locally overlain by a variety of Cretaceous and Tertiary-age sedimentary and volcanic rocks which have been deformed by tectonic activity. The youngest geologic units in the region are Quaternary-age (last 1.8 million years) sedimentary deposits, which partially fill most of the valleys.

Regional geologic mapping indicates that the project site is underlain by a variety of Pleistocene (11,000 to 1.8-million years old) and Holocene (younger than 11,000 years) alluvial deposits. Alluvium is generally composed of variable quantities of silt, clay, sand, and gravel, and by definition is transported and deposited by flowing water. Pleistocene deposits are typically more dissected than younger alluvium and are often somewhat lithified or cemented into weak sedimentary rocks. Holocene alluvium is typically relatively unconsolidated. Where deposited in stream channel, terrace, or floodplain environments, alluvial deposits are commonly moderately- to well-sorted, whereas alluvial fan deposits (emplaced where streams emanate from nearby mountains onto the valley floor) are typically poorly-sorted. These deposits generally grade from coarser to finer material farther from the mountain front.

The alluvial materials described above are derivative of the various bedrock formations underlying the Mayacamas Mountains which rise to maximum elevations of about +2,700 feet along the western side of Napa Valley. Bedrock formations within the Mayacamas generally include sedimentary rocks of the Jurassic-Cretaceous age Franciscan Complex and Cretaceous Great Valley Complex as well as a variety of Tertiary-age volcanic rocks.

The results of the subsurface exploration generally confirms the regionally-mapped geology. The project site is underlain by a variety of alluvial deposits which exhibit a wide range of composition (i.e. proportions of clays, silts, sands and gravels) but are generally moderately- to well-consolidated. None of the borings encountered bedrock, and none of the borings encountered soft, compressible, organic, or otherwise deleterious materials which would impede project advancement or require significant mitigation.

An “active” fault is one that shows displacement within the last 11,000 years and, therefore, is considered more likely to generate a future earthquake than a fault that shows no sign of recent rupture. The California Geologic Survey has mapped various active and inactive faults in the region. The nearest known active fault to the site is the West Napa Fault, which crosses the proposed Vine Trail alignment near its northern terminus at California Avenue.

Based on the subsurface exploration, historic groundwater data, and experience with other sites in the area, it is likely that groundwater exists within about 20-feet of the ground surface year-round at most locations along the alignment. Groundwater will be shallower in areas near seasonal channels (including Dry Creek, Hinman Creek, and Salvador Channel), and may be much shallower during the winter months and following periods of heavy rain. Water may be at or above the ground surface during especially heavy rainfall and flooding periods.

Discussion

a) Expose people or structures to 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.

No Impact. Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone[28]; therefore, the potential for fault rupture at the site is low. The project would not result in construction of habitable structures and therefore would not expose people or structures to potential substantial adverse effects from the rupture of a known earthquake fault.

ii) Strong seismic ground shaking?

Less Than Significant Impact. The project site and the entire San Francisco Bay Area is in a seismically active region subject to strong seismic ground shaking. Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground-shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. The potential for strong seismic shaking at the project site is high, as evidenced by the recent earthquake in Napa.[29] Due to its immediate proximity, the West Napa Fault presents the highest potential for severe ground shaking.

The most significant adverse impact associated with strong seismic shaking is potential damage to structures and improvements. No habitable structures would be constructed as part of the proposed project; however, implementation of the proposed trail alignment would increase the use of the project site. The Geotechnical Investigation includes design recommendations for site preparation and grading; foundation, retaining wall, and abutment design; paving strategies; review of plans; and intermittent monitoring during construction. In addition, the proposed project would be designed and constructed consistent with the most current version of the California Building Code, which includes specifications for site preparation, such as compaction requirements for foundations. Therefore, with incorporation of geotechnical recommendations, compliance with building code requirements, and oversight of earthwork activities by a California licensed geotechnical engineer, the potential impacts associated with ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

[28] State of California Department of Conservation, 2013. Earthquake Fault Zone Maps. Available online at: http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm (Accessed October 16, 2014).
[29] On August 24, 2014, an earthquake centered south of the City of Napa near the West Napa Fault affected the City of Napa and surrounding areas. The earthquake measured 6.0 on the moment magnitude scale.

Less Than Significant Impact. Liquefaction is the transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Soils most susceptible to liquefaction are loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts and gravels with poor drainage, or those capped by or containing seams of impermeable sediment.

The vast majority of the planned alignment is mapped regionally[6] as lying within a zone of "moderate" liquefaction susceptibility. The Dry Creek channel and adjacent floodplain (which extends roughly from Darms Lane to a point about 1/3-mile south) are mapped as having "very high" and "high" susceptibility levels, respectively, while that portion of the planned alignment extending from Wine Country Avenue to Salvador Avenue is mapped as lying in a zone of "low" liquefaction susceptibility.

Loose alluvial soil composed of poorly-graded sand with gravel was encountered in the upper five feet of one of the borings, drilled within the Dry Creek channel, but loose granular deposits were not encountered in any of the other borings. These loose sands in the channel bottom would be susceptible to liquefaction but are attributed to scour and deposition in the channel and were not encountered in adjacent borings. Alluvial deposits such as those encountered throughout the project area commonly contain discontinuous seams and lenses of loose granular materials and, given the relatively shallow water table, there may be some risk of localized liquefaction along the proposed alignment. The risk of liquefaction will likely be higher where the stream channels cross the alignment, including at the proposed bridge locations.

Given the relative lack of liquefiable materials encountered, gentle creekbank inclinations and preliminary bridge abutment locations at Hinman Creek and Salvador Channel (where planned abutments are set back five feet or more from channel banks), the risk of lateral spreading and liquefaction-induced settlements at these locations is relatively low.[30] At Dry Creek, where the southern channel bank is relatively steep, the risk of lateral spreading and related settlements are judged to be moderate. There is also some risk of localized sand boils throughout the alignment following a seismic event.

The primary impact associated with potential liquefaction is lateral spreading and settlement at the southern bank of Dry Creek. The Geotechnical Investigation recommends that the bridge abutments at the Dry Creek crossing be supported on deep foundations bearing on firm, non-liquefiable materials in order to reduce the potential for damage as a result of liquefaction-related phenomena. Foundation recommendations for the three bridges and other project structural features are also included in the Geotechnical Investigation. With implementation of the recommendations included in the Geotechnical Investigation and compliance with California Building Code requirements, impacts associated with liquefaction would be less than significant.

iv) Landslides?

[30] Miller Pacific Engineering, 2013.

No Impact. The proposed project is located on gently sloping terrain and the potential for landslide is low. The project would not result in any new habitable structures and therefore would not expose people or structures to potential substantial adverse effects from landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Sandy soils on moderate slopes or clayey soils on steep slopes are susceptible to erosion when exposed to concentrated water runoff. The project site is relatively flat in most areas so the risk of widespread erosion affecting the asphalt-paved pathway would be minor. Erosion and scour is a potential hazard along the banks of the shallow drainage channels that parallel the western side of the planned trail. Indications of significant erosion damage were not observed along the channel during site exploration, but future heavy rainfall or flood events could trigger new erosion.

Both sides of the 90-degree bends in the drainage channel at Hinman Creek (northern bridge) are protected against erosion by concrete facing as is the outside 90-degree bends of the Salvador Channel. With this concrete facing, the risk of erosion is substantially reduced and the inside bends (adjacent to the planned bridge abutments) are less prone to erosion damage at the Salvador Channel.

At Dry Creek, the northern channel bank is moderately-inclined and does not appear to have significant “hardscape” erosion protection. The southern bank is much steeper, inclined near 1:1 (horizontal:vertical), but is armored with sacked concrete. As with the other areas of the proposed alignment, significant indications of ongoing scour or erosion were not observed at the Dry Creek Bridge site, but high creek flows or a major storm even could induce damage that could become progressively worse. Deep foundations for the Dry Creek Bridge would reduce erosion risks to the structure, but channels in the project area should be periodically monitored in the future and any significant erosion should be evaluated and repaired, as appropriate.

Construction specifications require the preparation of a Stormwater Pollution and Prevention Plan (SWPPP) prior to any ground disturbance activities as required by the National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Construction (Order 2009-009-DWQ). The SWPPP will provide the details of the erosion control measures to be applied on the project site during the construction period, including Best Management Practices (BMPs) for erosion control that are recognized by the Regional Water Quality Control Board (RWQCB).

For the Dry Creek bridge, deep foundations, as required for liquefaction mitigation, would provide sufficient mitigation for potential undermining of abutments by scour and erosion. For the Hinman Creek and Salvador Channel bridges, where planned abutments are set back from the gently-inclined creek banks, the foundations, as designed, would provide adequate mitigation for erosion and scour. Implementation of a SWPPP and the recommendations provided in the Geotechnical Investigation would reduce potential impacts related to soil erosion or the loss of topsoil to less than significant.

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?

Less Than Significant Impact. As described above, the potential for hazard from landslide is low; however, the potential for liquefaction is moderate to high. Therefore, the potential for liquefaction induced lateral spreading is also moderate to high. The project site is not located on Karst formations and has not been subjected to mining activities; thus, the risk of subsidence or collapse is expected to be low. The proposed trail alignment would be designed and constructed with adequate foundations and bedding in accordance with the recommendations in the 2013 Geotechnical Investigation and the California Uniform Building Code to address the possible effects of unstable soils. No significant geologic hazards to the proposed project from landslide, lateral spreading, subsidence, liquefaction, or collapse would occur. This impact would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. Fine-grained soils throughout the site exhibit a range of plasticity indices from non-plastic to highly plastic, so some seasonal movement of near-surface soils and associated flatwork could occur. Significant distress as a result of expansive soils is not anticipated and the somewhat flexible asphalt surface of the proposed trail should perform relatively well, even in the relatively highly-plastic/potential expansive portions of the site.[31]

The Geotechnical Investigation recommends mitigation for potentially expansive soils, including moisture conditioning subgrade materials to above-optimum moisture contents during site grading, compacting to slightly lower levels, lime or cement-treated site subgrades. Damage from expansive soils would be minimized or eliminated using the site-specific engineering techniques as recommended in the Draft Geotechnical Investigation and compliance with requirements outlined in the California Building Code. This impact would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Septic tanks and alternative wastewater disposal systems would not be installed on the project site. Therefore, implementation of the proposed project would not result in impacts to soils associated with the use of such wastewater treatment systems.

[31] Miller Pacific Engineering, 2013.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?	❑	❑	■	❑
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	❑	❑	❑	■

Affected Environment

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of greenhouse gases (GHGs) that contribute to global climate change have a broader global impact. Global climate change is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. The principal GHGs contributing to global climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back out into space. Among the potential implications of global climate change are rising sea levels, and adverse impacts to water supply, water quality, agriculture, forestry, and habitats. In addition, global warming may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health. Like most criteria and toxic air pollutants, much of the GHG production comes from motor vehicles. GHG emissions can be reduced to some degree by improved coordination of land use and transportation planning on the city, county and subregional level, and other measures to reduce automobile use. Energy conservation measures can also contribute to reductions in GHG emissions.

The *BAAQMD CEQA Guidelines*, recommend that all GHG emissions from a project be estimated, including a project's direct and indirect GHG emissions from operations. Because the proposed project is a public utility project and would not generate any vehicle trips, the proposed project is not expected to generate GHG emissions and would not conflict with any plan related to the reduction of greenhouse gas emissions.

The BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions. However, BAAQMD recommends that the Lead Agency quantify and disclose GHG emissions that would occur during construction, and make a determination on the significance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals. The Lead Agency is encouraged to incorporate best management practices, such as recycling at

least 50 percent of construction waste or demolition materials, to reduce GHG emissions during construction, as applicable.

GHG emissions associated with implementation of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust. The proposed project would not result in significant, long-term, GHG emissions, as the proposed project consists of a path for pedestrians and bicyclists that would not generate vehicle trips and/or source emissions.

The primary existing sources of human-caused GHGs in the project area are vehicle emissions.

Discussion:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?

Less Than Significant Impact. GHG emissions associated with implementation of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust.

Short-Term GHG Emissions. Construction would produce combustion emissions from various sources. During site preparation and construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Project construction emissions were estimated using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RoadMod) which provides a methodology specifically for quantifying the emission impacts of linear construction projects. Results indicate project construction would result in total GHG emissions of 913 tons CO_2e.

Long-Term GHG Emissions. The proposed project would involve construction of a bicycle/pedestrian path. Once completed, the proposed project would not generate any GHG emissions or result in any new vehicle trips that would contribute to an increase in GHG emissions. Therefore, the proposed project would not cause a long-term increase in GHG emissions.

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. As indicated above, the project would not generate operational GHG emissions. Therefore, the proposed project would be consistent with all the applicable local plans, policies and regulations and would not conflict with the provisions of AB 32, the applicable air quality plan, or any other State or regional plan, policy or regulation of an agency adopted for the purpose of reducing greenhouse gas emissions.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS. 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 1/4 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 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❑	❑	❑	■
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❑	❑	❑	■

Affected Environment

An Initial Site Assessment (ISA)[32] was conducted along the project alignment to identify and evaluate

[32] Baseline Environmental Consulting, Inc., 2014. Initial Site Assessment, Napa Valley Vine Trail, Oak Knoll District Bike Path Project, Napa County. 24 February.

the level of risk to the project associated with hazardous materials, hazardous waste, and/or contamination along the project corridor that could potentially be encountered during proposed construction activities and/or operations.

According to the ISA, the project corridor consists of a mix of vegetated and unvegetated land, containing no buildings or other significant structures. Since the project corridor is bounded by SR 29 and Solano Avenue, the type of vegetation in the corridor varies depending on the corridor width and the presence of roads and drainages crossing the corridor. Concrete and construction debris, surface staining and small stockpiles of asphalt from existing roads were observed along the project corridor. Oil sheen was observed on the standing surface water at the Salvador Collector terminus. The bridge supports over the collector had been treated with petroleum based products which appeared to have dripped to the collector, accounting for the observed oil sheen. Several concrete wash areas were also observed near Devonshire Drive, which appeared to be from the recent installation of a new fire hydrant and concrete pad. Several above ground storage tanks were observed adjacent to the project corridor, as described further below.

An environmental records search was conducted by EDR that identified 146 records of sites that have used, stored, handled, disposed, or released hazardous materials within one mile of the project corridor; all sites determined to be in close proximity to the project have been closed. After data processing, there were 119 sites that use, store, handle, or dispose of hazardous materials or have reported a hazardous materials release in the vicinity of the project corridor. Based on the nature of the 119 sites, a judgment was made that only those sites within 500 feet of the corridor would be likely to have the potential to affect subsurface conditions at the project corridor, which narrowed the potential hazardous materials sites of concern to 63 sites. After eliminating duplicate records, 31 sites were left. These sites are listed in Table C.

Table C: Adjacent Hazardous Materials Sites

Site ID	Site Name	Address	City
4	Rinehart Oil Tanker Spill	Hwy 29 at California Dr	Yountville
5	Private Residence	7901 Solano Ave	Yountville
6	Veterans Home	100 California Dr	Yountville
8	Palm Vineyard	6200 Washington	Yountville
11	Town of Yountville Treatment Plant	7501 Solano Ave	Yountville
12	Florence Herrick	6296 St. Helena Hwy	Napa
13	--	6200 Washington St	Napa
13	Frank Massa	6160 St. Helena Hwy	Napa
14	Nord Coast Vineyard Service INC	6061 Solano Ave	Napa
16	J.H. Blevens Co., Inc.	5747 Hwy 29	Napa
17	Connie M Lindsey	1214 Carrell Ln	Napa
18	Newlan Vineyards	5225 Saint Helena Hwy	Napa
19	Koves-Newlan Winery	5225 Saint Helena Hwy	Napa

Site ID	Site Name	Address	City
21	Bayview Vineyard Corp/Napa Valley Automotive Restoration	5135 Solano Ave	Napa
23	Thomas Garage	4705 Solano Ave	Napa
24	Oak Knoll Southern Shop	1105 Oak Knoll Ave	Napa
25	A. Abruzzini	1045 Orchard Ave	Napa
27	Salvador Exxon	1895 Solano Ave	Napa
27	Nor-Cal Ford Equipment	4407 Solano Ave	Napa
28	Jean Shader	4122 Byway East	Napa
28	--	1890 El Cento Ave	Napa
28	--	117 Reed Circle	Napa
29	Wine Country Laundromat	4217 Solano Ave	Napa
31	Evans Airport Service/Shop/CA Wine Tours	4075 Solano Ave	Napa
31	Jim's Auto Repair	4028 Byway East	Napa
32	John Muir Inn	1998 Trower Ave	Napa
34	Speedee Laundry Village	1922 Sierra Ave	Napa
34	--	2029 Devonshire Dr	Napa
34	Dave's Wash Tub	1935 Sierra Ave	Napa
35	--	3657 Harkness St	Napa
38	Arco Station	2000 Redwood Rd	Napa
38	BP Mobil Station	2005/2006 Redwood Rd	Napa
38	Chevron Station	2007 Redwood Rd	Napa
38	Exxon/Texaco Station	2008 Redwood Rd	Napa
38	Wommack/Nelson DDS	2025 Redwood Rd	Napa
38	PG&E	3425 Solano Ave	Napa
38	Wash & Dry	3373/3375/3377 Solano Ave	Napa

Notes:

- Current, former and/or potential gas station
- Reported gas station release site
- Laundromat; No reported contamination

Source: BASELINE Environmental Consulting, 2014.

Based on review of site information from the State Water Resources Control Board (SWRCB) GeoTracker, Department of Toxic Substances Control (DTSC) EnviroStor, and other regional databases, the regulatory oversight statuses of all recorded release sites, listed leaking underground storage tanks (LUSTs) and spill sites adjacent to the project corridor are closed. A closed site indicates that regulatory requirements for response actions, such as site assessment and remediation,

have either been completed or were not necessary and therefore potential migration of residual contaminants in groundwater beneath the project corridor (if any) does not likely pose a risk to human health and the environment. Based on the regional hydrogeology and estimated groundwater flow direction, none of the reported gas stations are located adjacent to or upgradient (within 500 feet) of areas where deeper excavation for the project, which could potentially interact with groundwater would occur. However, management of residual groundwater contamination (if any) during potential dewatering would need to be performed in accordance with applicable statutes and regulations.

Based on Caltrans guidelines and previous experience working on similar projects, the ISA also identifies and evaluates other environmental concerns that could pose a risk to project development, including pesticide residues from agricultural land uses, aerially-deposited lead (ADL), hazardous materials associated with rail corridors, metals from non-point sources, naturally-occurring asbestos, and residual groundwater contamination. The results of these evaluations are summarized as follows:

- **Agricultural Chemical Residues.** The entire project vicinity has historically been or is currently used for agricultural purposes. Although the project corridor has not been used for agricultural uses for many decades, past use of inorganic pesticides and aerial spraying on adjoining properties could drift and affect shallow soils at the project area. Therefore, pesticide residues have the potential to be present in shallow soils at the project study area
- **Aerially-Deposited Lead.** Shallow soils within approximately 30 feet of the edge of pavement in highway corridors have the potential to have significant concentrations of ADL due to historical car emissions prior to the elimination of lead in gasoline. Because the nearest construction for the project would be greater than 30 feet from SR 29, ADL from that roadway would not be expected to affect project construction. Other roadways within 30 feet of the project corridor, such as Solano Avenue, are two-lane streets with much less vehicle traffic, particularly during the era when leaded gasoline was used, and therefore ADL from those smaller roadways would not be expected to significantly affect the project corridor.
- **Contaminants Associated with Railroad Operations.** Hazardous materials associated with the rail corridor[33] could potentially have leached into shallow soils or entrained within runoff. Construction areas are located within approximately 15 to 30 feet of the railroad tracks, and stormwater runoff from the tracks could potentially carry contaminants from the tracks to the project corridor. If this has occurred, shallow soils along the project corridor could potentially be contaminated with contaminants related to railroad activity
- **Naturally-Occurring Asbestos.** Geologic mapping from the United States Geological Survey does not show any areas of rock likely to contain naturally-occurring asbestos (ultramafic rock) along the project corridor. Therefore, naturally-occurring asbestos in native soils along the project corridor would not be expected to be a potential hazard during development of the project
- **Nonpoint-Source Metals.** Metals from nonpoint runoff sources, such as from the railroad tracks, vehicle tires, and brake pads, can accumulate in drainage swales and catch basins over time. Sediments in drainage swales and catch basins in the project corridor from nearby

[33] Hazardous materials that could potentially be present in the adjoining rail corridor due to construction and operation of the railroad tracks include metals, contaminated imported fill or ballast used during construction of the railroad tracks, spilled or leaked total petroleum hydrocarbons, spilled cleaning solvents and detergents, herbicides, arsenic, and polynuclear aromatic hydrocarbons, historically used to treat and waterproof railroad ties (TDART, 2004).

roadways and railroad tracks could contain elevated concentrations of metals and pose a risk to human health and the environment. As the project would remove and replace approximately eight linear feet of a drainage culvert near Wine Country Avenue, near the northern Napa city boundary, metals could be encountered in sediments during this part of project construction.

The ISA concluded that the project was at low risk for environmental concerns related to: potential chlorinated solvents in groundwater from releases associated with adjacent land uses, potential petroleum hydrocarbons releases from former USTs associated with historic and active sites adjacent to or upgradient of the project corridor; and potential groundwater contamination from hazardous materials from undocumented releases associated with current and former agricultural, commercial, and/or industrial properties adjacent to the project corridor. The proposed project is at medium risk due to residual pesticides in shallow soils from historic agricultural uses, hazardous materials associated with historic railroad construction and operation, and elevated concentrations of metals in catch basin sediments from nonpoint sources.

Discussion:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Potentially Significant Unless Mitigation Incorporated. The proposed project would provide a trail connection between two existing segments of the Vine Trail, the Commuter Bike Path in Napa and the Yountville Mile in the Town of Yountville. Construction of the proposed trail would include installation of prefabricated truss bridge to span two manmade drainage channel and modifications to the existing Solano Avenue bridge over Dry Creek. After project construction, no routine transport or disposal of hazardous materials would be associated with the proposed project. The hazardous materials most likely to be used during construction include typical construction materials such as gasoline, diesel, motor oil, lubricants, solvents, and adhesives. Drips and small spills would be the most likely potential hazardous materials releases to occur, however any release that occurs in close proximity to a stream or drainage channel could have a significant impact on the environment, if not properly controlled. Implementation of Mitigation Measure BIO-9, requiring the preparation and proper implementation of a SWPPP in accordance with the *NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (NPDES General Construction Permit)(Order No. 2009-0009-DWQ, NPDES No. CAS000002) (SWRCB, 2009) permitting requirements would reduce the potential for hazardous materials releases to occur during construction, and would reduce the potential for spills to impact sensitive habitat or human health, to less than significant. SWPPPs are required for construction sites over one acre that do not qualify for a waiver.

As described above, soils and groundwater along the project corridor could contain residual pesticides associated with historic agricultural uses, contaminants associated with historic railroad construction and operations and elevated concentrations of metals from non-point sources. If soils and groundwater are not properly managed during construction, exposure to these hazardous materials could pose a health hazard to construction workers. Exposure to contaminants in soil or groundwater could occur through inhalation of fugitive dust, incidental ingestion, or dermal contact with contaminated material. The implementation of Mitigation Measures HAZ-1 and HAZ-2 described below would reduce the potential health hazard impacts from the exposure of construction workers to contaminated material present in soil and groundwater to less than

significant.

Mitigation Measure HAZ-1: Prior to construction, a Preliminary Site Investigation (PSI) shall be performed to investigate hazardous materials concerns. The PSI shall be conducted by a California Professional Geologist and/or a California Professional Civil Engineer with experience in contaminated site investigation. A workplan for the PSI shall be submitted to the NCTPA for review and approval. General areas and contaminants of concerns to be included in the PSI include:

- **Soil Investigation.** Soil samples shall be collected from proposed construction areas as summarized below. Soil analytical results should be screened against the Regional Water Quality Control Board's (2013) Environmental Screening Levels (ESLs) to determine appropriate actions to ensure the protection of construction workers and shall also be screened against hazardous waste thresholds to determine soil management options.
- **Railroad-Related Sampling.** Representative samples of shallow soils shall be collected from locations within the project corridor nearest the railroad tracks and analyzed for Title 22 metals, polynuclear aromatic hydrocarbons, and chlorinated herbicides. It is anticipated that 4 to 8 discrete samples, from the locations nearest the railroad tracks, would be sufficient to determine if contaminants from the railroad tracks have migrated and affected shallow soils within the project corridor.
- **Residual Pesticides.** Representative samples of shallow soils shall be collected from within the project corridor and analyzed for arsenic, chlorinated herbicides, and organochlorine pesticides. It is anticipated that 4 to 8 composite samples, selected from areas along the entire alignment, would be sufficient to determine if pesticides may be a potential concern along the project corridor.
- **Drainage Channels.** Representative samples of sediments shall be collected from the drainage channel near Wine Country Avenue in Napa proposed to be replaced by the project. Sediments should be analyzed for Title 22 metals. Given the limited area, one composite sample will be sufficient to characterize metals in sediment.
- **Groundwater Investigation.** If groundwater is proposed to be dewatered as part of bridge construction, groundwater samples shall be collected at the excavation points associated with the installation of the bridges over the unnamed drainage channels. Groundwater samples should be analyzed for petroleum hydrocarbons and volatile organic compounds. Groundwater analytical results should be screened against applicable limits to determine dewatered groundwater management options and potential health and safety measures for construction workers who may have direct contact with dewatered groundwater. If no dewatering is proposed, no groundwater investigation is warranted.
- **Hazardous Materials Management and Disposal.** Based on the findings of the PSI, special soil and groundwater management and disposal procedures for hazardous materials may need to be implemented, as well as construction worker health and safety measures during construction. Recommendations for any special management and disposal procedures should be included in the PSI.

Mitigation Measure HAZ-2: If contamination is identified as a result of the PSI, the contractor shall prepare and implement a project-specific Construction Risk Management Plan (CRMP) to protect construction workers, the general public, and the environment from subsurface hazardous materials during construction. The CRMP shall characterize the soil, delineate areas of known soil contamination, and identify soil (and groundwater, if encountered) management options for excavated soil and dewatered groundwater (if applicable), in compliance with local, state, and federal statutes and regulations.

The CRMP shall: 1) provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation activities; 2) require the preparation of a project-specific Health and Safety Plan that identifies hazardous materials present, if any, describes required health and safety provisions and training for all workers potentially exposed to hazardous materials in accordance with state and federal worker safety regulations, and designates the personnel responsible for Health and Safety Plan implementation. The CRMP shall be submitted to the NCTPA for review and approval prior to construction activities. Once approved the CRMP shall be implemented during construction of the proposed project.

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?

Potentially Significant Unless Mitigation Incorporated. See Section VII(a) above.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school?

Potentially Significant Unless Mitigation Incorporated. Several schools are located within ¼ mile of the proposed trail alignment including: Justin-Siena Catholic high School, Redwood Middle School, Sandoval Elementary School. Other schools in the vicinity of the project site include: Northwood Elementary School, Vintage High School, and El Centro Elementary School. As described in Response VII (a) above, the proposed project would not require the routine use, transport or disposal of hazardous materials. Construction activities associated with trail construction could release hazardous materials contained in soils or groundwater along the project alignment. Implementation of Mitigation Measures HAZ-1 and HAZ-2 would reduce potential impacts associated with hazardous materials 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?

No Impact. The project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and therefore would not create a hazard to the public or environment.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airports to the project site are the Napa County Airport, approximately 8 miles south; the Sonoma Valley Airport, approximately 11 miles southwest; the Petaluma Municipal Airport, located approximately 16 miles north; and the Marin County Airport, located approximately 18 miles to the southwest. Therefore, given that the proposed project is not located within an airport land use plan or within two miles of an existing airport, the proposed project would not result in a safety hazard for people residing or working in the project area.

f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not in the vicinity of a private airstrip. Therefore, implementation of the proposed project would not expose persons to airport-related hazards.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project would not result in interference with any adopted emergency response plans or evacuation plans. The proposed project would connect two existing trails, providing another route that could be used by bicyclists and pedestrians in an emergency. The proposed trail alignment would be located between the Napa Valley Wine Train right-of-way and Solano Avenue, predominantly within public right-of-way. During construction, road access may be disrupted temporarily. Streets and roads affected by trail construction would be appropriately signed with temporary traffic control measures per Caltrans standards and the MUTCD. After completion of the proposed trail and associated intersection improvements, temporary signage and traffic control measures would be removed. Therefore, the proposed project would not impair or interfere with an adopted emergency response plan or evacuation plan.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The project site is located in an area of little to no wildland fire threat[34] (ABAG 2009). Therefore, the proposed project would have no impact related to exposure of people or structure to significant risk of loss, injury or death involving wildland fires. greatly reduced through standard construction best practices, including equipment features, fuel treatment, and management of behavior.

[34] California Department of Forestry, 2003. State Responsibility Areas. Available as part of the Association of Bay Area Governments' Earthquake and Hazards Program: http://quake.abag.ca.gov/wildfires/ (Accessed October 19, 2014).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	❑	❑	■	❑
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	❑	❑	■	❑
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?7	❑	❑	■	❑
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	❑	❑	■	❑
e) 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?	❑	❑	■	❑
f) Otherwise substantially degrade water quality?	❑	❑	■	❑
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	❑	❑	❑	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	❑	❑	■	❑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?	❑	❑	■	❑
j) Inundation by seiche, tsunami, or mudflow?	❑	❑	■	❑

Affected Environment

The proposed trail alignment is located within the Napa River watershed. The Napa River, constrained by Mount St. Helena to the North, the Mayacamas Mountains to the west, Howell Mountain, Atlas Peak, and Mount George to the east and the Napa-Sonoma Marsh to the south, drains a 426 square mile watershed that discharges to the San Pablo Bay.[35]

According to the State Water Resources Control Board (SWRCB) 2010 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report), the Napa River is listed as an "impaired" water body due to nutrients, pathogens, ands sedimentation/siltation. A listing of a water body as "impaired" triggers development of standards and implementation plans known as Total Maximum Daily Loads (TMDLs) for each water quality pollutant, and these standards and implementation plans are ultimately codified in amendments to the Water Quality Control Plan. Napa County has implemented regulations to address water quality concerns including erosion control, stream setbacks, vegetation retention requirements, shortened grading season, oversight of erosion control installations, special geologic stability assessments, and conservation sizing of water conveyance and detention facilities.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps prepared for the project area, portions of the project alignment are located within the 100-year floodplain (i.e., an area in which there is a one percent chance per annum of a one hundred-year storm event) of the Hinman Drainage Channel.[36] These areas are designated as Zone AE, areas for which the base flood elevation[37] has been determined and Zone X, areas of 0.2 percent annual chance flood; areas of one percent annual chance flood with an average depth of less than one foot or with drainage areas less than one square mile; or areas protected by levees from one percent annual chance flood.

Water quality is regulated by the United States Environmental Protection Agency's National Pollution Discharge Elimination System (NPDES), which controls the discharge of pollutants to water bodies from point and non-point sources. In the Bay Area, this federal regulatory program is administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB), which was expanded in 1990 to include permitting of stormwater discharges from storm sewer systems, industrial activities and construction sites that disturb more than 1 acre.

The general NPDES stormwater permits for general industrial and construction activities require an applicant to file a public notice of intent (NOI) with the applicable RWQCB to discharge stormwater and prepare and implement a storm water pollution and prevention plan (SWPPP). The SWPPP would include a site map, description of stormwater discharge activities, and best management practices that would be employed to prevent water pollution. The SWPPP for general construction activity permits must describe Best Management Practices (BMPs) that would be used to control soil erosion and discharges of other construction-related pollutants that could contaminate nearby water resources.

[35] Napa County, 2009.
[36] Federal Emergency Management Agency (FEMA), 2008. Napa County California and Incorporated Areas, Map ID 06055C0413E FEMA Map Service Center. 26 September. Available online at: http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=87082065&IFIT=1 , (accessed October 20, 2014).
[37] The base flood elevation is the water surface elevation of 1 percent annual chance flood.

Discussion:

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. Development of the proposed project would result in an increase in the amount of impervious surface area and an associated increase in the rate and volume of stormwater runoff from the site. Where existing sheet flow to the east from Solano Avenue is to be blocked by curb and gutter, inlets or other means would be provided to convey stormwater into existing stormdrain systems and channels with minimal alteration to existing drainage. These drainage improvements will remain after completion of the path. The proposed project would be required to comply with City of Napa, Napa County and the Town of Yountville, regulations related to stormwater runoff, including implementation of post-construction best management practices and the requirements of the Phase II Small Municipal Separate Storm Sewer System (MS4) permit (NPDES Permit Order No. 2013-0001). Compliance with these regulations would ensure that long-term operation of the proposed trail would have a less than significant impact on water quality.

Construction activities have the potential to disrupt soil and cause erosion and increase sediment runoff. Materials used during construction of paved trails may have chemicals that are potentially harmful to aquatic resources and water quality. Accidents or improper use of these materials could release contaminants to the environment. Additionally, oil and other petroleum products used to maintain and operate construction equipment could be accidentally released.

The National Pollutant Discharge Elimination System General Permit (GP) for Construction (Order 2009-009-DWQ) requires construction sites over one acre that do not qualify for a waiver to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall incorporate Best Management Practices (BMPs) to control sedimentation and runoff. These measures would be consistent with the application for a stormwater permit from the RWQCB. Compliance with the NPDES Permit is mandated by State and federal laws and new construction projects are required to comply with storm water general permits. Consistent with the GP, the SWPPP shall adhere to the following requirements:

- The SWPPP shall include measures to avoid creating contaminants, minimize the release of contaminants, and water quality control measures to minimize contaminants from entering surface water or percolating into the ground during and following the completion of construction.
- Fluvial erosion and water pollution related to construction shall be controlled by the SWPPP and kept current throughout all site development phases.
- The SWPPP shall include BMPs, as appropriate, given the specific circumstances of the site and project.
- The SWPPP shall be submitted to the RWQCB in compliance with the requirements of the GP.
- A spill prevention and countermeasure plan shall be incorporated into the SWPPP.

If dewatering is necessary in areas where groundwater is encountered within the planned depth of excavation, depending on surface and groundwater levels at the time of construction, the

dewatering shall be consistent with RWQCB requirements and as such would not result in a violation of water quality standards or waste discharge requirements.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The proposed project would not result in the construction of large areas of impervious surfaces that would prevent water from infiltrating into the groundwater nor would it result in direct additions or withdrawals to existing groundwater. Dewatering may be required if groundwater is encountered during excavation. However, no groundwater would be extracted per se. Dewatering, if necessary, would be conducted in compliance with requirements of the Regional Water Quality Control Board (RWQCB). This impact is considered less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. No significant change in either drainage patterns or on-site or off-site effects from erosion and siltation would occur. As outlined in the project description, topography along the proposed trail alignment is mostly flat and the existing grade would not substantially change. Where needed, drainage improvements would be installed to capture stormwater and convey it into the existing stormdrain systems and channels. These drainage improvements would remain after completion of the path. Minimal alteration to the existing drainage system would result from the proposed project. As described above in Response IX(a), during construction, BMPs would be implemented, consistent with the GP, so that on-site and off-site erosion and sedimentation would be controlled to the extent practicable. Therefore, this impact would be less than significant.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. As described in Responses IX(a) and (c) above, no substantial change in either drainage patterns or flooding on- or off-site would occur. Under existing conditions, stormwater runoff sheet flows to the east from Solano Avenue. Where this sheet flow would be blocked by proposed project improvements, drainage improvements would be installed to capture stormwater and convey it to the existing storm drain system. During construction, BMPs would be implemented, consistent with the GP, so that on-site and off-site erosion and sedimentation would be controlled to the extent practicable. Therefore, this impact would be less than significant.

e) 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?

Less Than Significant Impact. See Responses IX(a), (c) , and (d).

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. See Response IX(a).

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. No housing units are proposed as part of the project.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact. Approximately 2 miles of the proposed trail alignment are located within a FEMA 100-year flood zone. The proposed project would construct an asphalt bicycle and pedestrian trail between Solano Avenue and the Napa Wine Train right-of-way. The trail would be constructed at grade. As outlined in the project description, the proposed trail alignment would include pre-fabricated steel truss bridges to cross two unnamed drainage channels. The bridge elevations (bottom of deck) would be designed to be above the 100-year floodplain to avoid impacting existing flows within the channels. Therefore, the proposed project would not include any structures that would impede or redirect flows. Impacts related to flood hazards would be less than significant.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?

Less Than Significant Impact. As described in Response IX(h) above, a portion of the proposed trail alignment is located within FEMA 100-year flood zone. The proposed trail would be constructed at grade and proposed bridge crossings would be designed above the 100-year floodplain to avoid impacting existing flows within the channels. According to the Napa County General Plan,[38] a portion of the proposed trail alignment is located in the inundation area for the Rector Creek Dam. However, no habitable structures would be constructed as part of the proposed project. While construction of the proposed trail would increase use of the area, such use would be intermittent and temporary. Therefore, the proposed project would not expose people or structures to significant risk of loss, injury or death involving flooding.

j) Inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. Seiches are caused when earthquake ground motions cause water to oscillate from one side to the other of a closed or partially closed body of water such as a lake, bay or channel. Since no such bodies of water are located on or adjacent to the project site, there

[38] County of Napa, 2009. Napa County General Plan – Figure SAF-5 Napa Dam Inundation Areas. Available online at: http://www.countyofnapa.org/generalplan/ (Accessed October 8, 2014).

is no risk of inundation by seiche.

Tsunamis, or seismic tidal waves, are caused by off-shore earthquakes that can trigger large, destructive sea waves. The project site is not located close to the coastline, and there is no risk of inundation by tsunami.

Mudflows typically occur in mountainous or hilly terrain. The topography of the project area is flat and there are not active landslides in the project area. Therefore, the potential for inundation by mudflow is less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	❑	❑	❑	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	❑	❑	■	❑
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	❑	❑	❑	■

Affected Environment:

The project site extends from the Napa Valley Wine Train right-of-way to Solano Avenue, just south of Redwood Road in the City of Napa to California Lane in the Town of Yountville in Napa County, California. The proposed path would be located west of and run parallel to State Highway 29. Surrounding land uses include agricultural lands within unincorporated Napa County and developed lands within the City of Napa. In Napa County and the Town of Yountville, adjacent land uses include vacant land, agricultural uses, rural residential development, vineyard/winery, golf course, and fire station. Adjacent land uses in the City of Napa include: single family and multifamily (apartments) residential uses; mobile home park; light industrial/warehouse uses; commercial development; motel/hotel; and a high school.

The project site has Napa County, City of Napa, and Town of Yountville land use and zoning designations. The majority of the proposed trail alignment lies within the City of Napa. According to the City of Napa General Plan, land uses along the project alignment are designated for Single Family Infill (SFI-1, SFI-6, and SFI-10), Multifamily Residential (MFR-11, MFR-14), Single Family Residential (SFR-2), Tourist Commercial (TC-401, TC-402), Local Commercial (LC-400), and Public Serving (PS-801). Corresponding zoning designations identified in the City of Napa Zoning Ordinance include: Single-Family Infill (RI-4, RI-5); Single Family Residential (RS-5); Multifamily Residential (MR); Local Commercial (CL); Tourist Commercial (CT); Public, Quasi-Public Schools, and Health Facilities (PQ). These land use and zoning designations are intended for a variety of uses including: residential and commercial development, and properties dedicated to community-serving purposes such as public schools, major community health facilities and related community service facilities.

According to the Napa County General Plan, land uses along the project alignment are designated for Agricultural Resources. Applicable zoning designations include: AP (Agricultural Preserve), AW (Agricultural Watershed), and CL (Commercial Limited). The AP and AW designations are intended for the preservation and protection of agricultural uses, watersheds and floodplain tributaries. The CL

designation is intended to establish areas that will provide the tourist, vacationer and highway traveler with needed uses and services.
Areas in the Town of Yountville are designated for Public Facilities. The land use designation PF was created to accommodate governmental, public utility and public educational facilities.

Discussion:

a) Physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. The proposed project would provide a new trail connection between the Commuter Bike Path in Napa and the Yountville Mile. The proposed project would not physically divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The plans, policies and regulations applicable to the proposed project include the Napa County General Plan,[39] the City of Napa General Plan,[40] the Town of Yountville General Plan,[41] the Napa County Municipal Code,[42] the City of Napa Municipal Code,[43] and the Town of Yountville Municipal Code.[44] The proposed project would be located within public right-of-way between Solano Avenue and the Wine Train right-of-way. The proposed project is an allowable land use according to the general plan land use and zoning designations for the project site.

The proposed trail connection is included as a proposed Class I bikeway in the Napa County Bicycle Plan.[45] The City of Napa Bicycle Plan, the Napa County Bicycle Plan and the Town of Yountville Bicycle Plan all support completion of the Vine Trail within the City of Napa,[46] including a proposed Class I facility along SR 29 from the Vine Trail/Commuter Bike Path/SR 29 Overpass to Redwood Road. Completion of the Napa Valley Vine Trail through Yountville

[39] Napa County, 2009
[40] City of Napa, 2010 (as amended).
[41] Town of Yountville, 2003.
[42] Napa County, 2014. Napa County Code of Ordinances. 30 June. Available online at: https://www.municode.com/library/ca/napa_county/codes/code_of_ordinances (Accessed October 21, 2014).
[43]City of Napa, 2014. Napa Municipal Code, Title 17. September. Available online at: http://qcode.us/codes/napa/ (accessed October 9, 2014).
[44]Town of Yountville, 2014. Town of Yountville Municipal Code, Title 17. Available online at: http://www.townofyountville.com/index.aspx?page=61 (accessed October 9, 2014).
[45] Whitlock & Weinberger Transportation, Inc. and Questa Engineering Corporation, 2012. Napa County Bicycle Plan. January. Available online at: http://www.nctpa.net/napa-county-bike-plan (Accessed October 21, 2014).
[46] Whitlock & Weinberger Transportation, Inc. and Questa Engineering Corporation, 2012. Napa County Bicycle Plan. January. Available online at: http://www.nctpa.net/city-napa-bike-plan (Accessed October 21, 2014).

with connectivity from the Vallejo Ferry Terminal to Calistoga is identified in the Town of Yountville Bicycle Plan.[47]

Generally, the proposed project is in direct support of many relevant plans and policies, which contain goals and policies in support of bicycle and pedestrian trails, and specific goals and policies in support of completion of the Vine Trail. Additional relevant policies relate to the protection of natural resources, water quality, cultural resources, visual resources, air quality, and public safety from natural and human-caused hazards, provision of public services, noise and traffic. Many of the project impacts related to these topics are less than significant or are limited to the short-term construction phase of the project as described in the relevant sections of this document. With implementation of the mitigation measures contained in this document, the proposed project is consistent with all of these policies with all the relevant regulations and policies contained in these documents. This impact would be less than significant.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. No habitat conservation plans or natural community conservation plans apply to the proposed project site. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

[47] Whitlock & Weinberger Transportation, Inc. and Questa Engineering Corporation, 2012 Town of Yountville Bicycle Plan. January. Available online at: http://www.nctpa.net/yountville-bicycle-plan (Accessed October 21, 2014).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	❑	❑	❑	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	❑	❑	❑	■

Affected Environment:

The State Mining and Reclamation Act of 1975 (SMARA) identifies and protects California's mineral resources. State mineral resource zone (MRZ) maps do not exist for the bulk of Napa County. According to the Napa County General Plan, three mines in Napa County are designated as active by the State Department of Conservation, Office of Mine Reclamation: 1) Napa Quarry (Syar Industries, Inc.), Pope Creek Quarry (Don Wesner, Inc.), and American Canyon Quarry (Syar Industries, Inc.) (initiated reclamation in July 2007). Only the Napa Quarry is a significant mine. None of these mines are located in the project area.

Discussion:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No Impact. The proposed project would consist of a bicycle and pedestrian trail and associated intersection improvements. The proposed project would not interfere with any future exploration of the mineral deposit mapped on the project site.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The proposed project would not result in the loss of availability of any locally-important mineral resource recovery site.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	❑	■	❑	❑
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	❑	❑	■	❑
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	❑	■
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	■	❑	❑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	❑	❑	❑	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	❑	❑	❑	■

Affected Environment:

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3.0 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3.0 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness. Sound intensity is normally measured through the *A-weighted sound level* (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive.

The primary existing noise source in the project area is vehicle traffic, including cars, trucks, buses, and motorcycles on roadways near or in the project vicinity. The level of vehicular noise generally varies with the volume of traffic, the number of trucks or buses, the speed of traffic, and the distance from the roadway.

The proposed project would construct a six mile segment of trail. Residential units are located adjacent to portions of the project site. The closest residence is located approximately 100 feet from the proposed construction area.

Discussion:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Unless Mitigation Incorporated. The potential noise impacts of the proposed project are described below.

Long-Term Operational Impacts. Operation of the trail would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, since no additional vehicular traffic or other operational noise would be generated. Pedestrians or bicyclists using the trail may be talking and thus generate noise, however, at 100 feet from the source, this noise level would not be significant. Therefore, no significant long-term noise impacts would occur after construction is completed.

Short-Term (Construction) Impacts. Construction of the proposed project would add short-term and intermittent noise from use of equipment and vehicles. Noise impacts from construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. However, the construction equipment pass-by noise would be similar to existing truck activity in the project vicinity. Therefore, traffic associated with worker commute and equipment transport to the project site would be less than significant.

According to the noise analysis prepared for the project[48], the proposed project would include the construction of three bridges that would require the use of torque down piles for piers for the bridge foundations. The piles would be installed into the ground by the application of a rotational torque, which provides for reduced ground vibrations compared to driven piles and would be virtually vibration free.

The proposed project would require the use of earthmoving equipment including excavators, loaders, and dump trucks. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise typically associated with the use of construction equipment is estimated between 79 and 89 dBA L_{max} at a distance of 50 feet from the operating construction equipment. Noise associated with the use of pavers, pumps and haul trucks would be up to 90 dBA L_{max} at a distance of 100 feet.

Based on the findings of the noise analysis, the following measures shall be implemented by the project to reduce construction noise impacts to nearby sensitive receptors:

[48] Fredericksen, Herb, 2014. CML 6239 (008) – Napa Valley Vine Trail Project, Oak Knoll District Construction Noise. Technical Memorandum to Susan Tse. May 30.

Mitigation Measure NOISE-1: The following multipart measure shall be implemented to reduce construction noise impacts to a less-than-significant level:

- All equipment shall have sound-control devices that are no less effective than those provided on the original equipment. No equipment shall have an unmuffled exhaust.
- All equipment shall be properly maintained and operated.
- The contractor shall implement appropriate additional measures to reduce noise when adjacent to receptor locations including but not limited to, changing the location of stationary construction equipment, using temporary noise barriers, and placing noise blankets around pile drivers.
- The contractor shall notify adjacent residents in advance of construction of the work hours and scheduled work.
- The construction contractor's specifications shall stipulate that noise-generating construction activity between the hours of 6:00 p.m. and 7:30 a.m. daily, or at any time on Sunday or a legal holiday shall not be allowed except when permitted by the governing Planning Director for an extreme situation.
- A Noise Control Plan shall be required of the construction contractor. The Plan would describe abatement measures to be utilized to comply with the noise regulations. The Plan shall also include a noise monitoring program to be implemented by the construction contractor. Special attention shall be given to minimizing noise effects near sensitive receptors.

Implementation of Mitigation Measure NOISE-1 would ensure project compliance with local noise ordinances and would minimize noise levels at sensitive receptor locations. This impact would be less-than-significant.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Less Than Significant Impact. Development of the proposed project would not result in excessive ground borne vibration or noise levels. There may be relatively minor vibrations from the use of trucks, torque down piles, or other equipment during construction activities such as excavation. However, this ground borne condition from such equipment would be relatively minor, intermittent, short-term, and restricted to daytime hours. Additionally, noise sensitive receptors are not located in the immediate vicinity of the construction areas.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The long-term use of the project is for a pedestrian and bicycle path. This land use would not generate increased ambient noise levels. No substantial long-term increase in ambient noise levels is expected as a result of project implementation.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Unless Mitigation Incorporated. Temporary intermittent noise from short-term construction activities associated with the development of the project would occur. At sensitive receptor locations, the noise level would increase during the short term construction period. However, it would be a short-term source and therefore would not be considered significant with implementation of Mitigation Measure NOISE-1. No substantial increase in existing ambient noise levels would result from long-term operation of the project. Compliance with applicable noise ordinances would reduce potential construction-related noise impacts to a level below significance.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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 project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airport to the project site is the Napa County Airport, approximately 10 miles south of the project. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located in the vicinity miles of a private airstrip. Implementation of the proposed project would not be affected by operations associated with a private air strip.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■

Affected Environment:

The project site consists of public right-of-way between Solano Avenue and the Wine Train right-of-way. Surrounding land uses include SR29, agricultural, residential, and commercial development, and public facilities. The project corridor consists of a mix of vegetated and unvegetated areas, containing no buildings or other significant structures. The type of vegetation varies depending on the corridor width and the presence of roads and drainages crossing the corridor.

Discussion:

a) Induce substantial 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)?

No Impact. The proposed project would not result in new housing, commercial, or industrial space as part of the proposed project. Therefore, the proposed project would not directly or indirectly induce substantial population growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. No housing currently exists at the project site. Therefore, the project would not displace any existing housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not displace any people, as the project site is currently unpopulated.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES.				
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?	❑	❑	❑	■

Affected Environment:

The project site extends from the City of Napa, into unincorporated Napa County to the Town of Yountville. Public services provided to the project area are described below.

Fire Protection and Emergency Services. The County of Napa contracts with the California Department of Forestry (CAL FIRE*)* for fire protection services as the Napa County Fire Department. CAL FIRE provides administrative support and coordination with five full-time paid stations and nine volunteer fire companies operating under a County Fire Plan, which is approved by the County Board of Supervisors. The Napa County Fire Department provides fire and emergency service dispatching for the City of St. Helena, Calistoga and Napa State Hospital Fire Departments. The Town of Yountville and the California Veterans Home contract with the County to provide fire services to those jurisdictions.

The Napa City Fire Department provides fire protection and emergency services to the City of Napa. The Napa City Fire Department also works closely with CAL FIRE and the Napa County Fire Department. The closest fire station to the project site is located at 2000 Trower Avenue near SR 29.

Police Protection. The Napa County Sheriff's office provides law enforcement for the unincorporated areas of the County, as well as police services for American Canyon and Yountville. The closest Napa County Sheriff's office to the project site is located at 1950 Mulberry Street in the Town of Yountville. The main headquarters are located 1535 Airport Boulevard in Napa.

The Napa Police Department provides law enforcement to the City of Napa. The Napa Police Department is located 1539 First Street.

Schools. The project area is served by the Napa Valley Unified School District.

Parks. See Section XV. Recreation for information about parks.

Discussion:

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?*

No Impact. The proposed project would not result in an increase in population or facilities that would require the provision of fire or police services, schools, parks, or other public facilities, or result in the need for physically altered facilities. The demand for public services would be the same as under existing conditions after the construction of the proposed project.

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	❑	❑	■	❑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	❑	■	❑	❑

Affected Environment:

The City of Napa Parks and Recreation Services Department provides residents with access to more than 48 parks that cover 800 acres of park land. The City's park system includes parks, open space, playgrounds, sport fields, a golf course, the Napa River and miles of natural and paved trails for walking, biking and hiking. City of Napa parks in proximity to the proposed trail alignment include: Klamath Park, Harkness Park, and Monarch Park, all three of which are located east of SR 29.

The Town of Yountville operates seven parks, the Yountville Community Center, several recreational trails within the Town. Veterans Memorial Park is located in the Town of Yountville just east of SR 29 near the northern terminus of the proposed trail alignment. Other recreation facilities in proximity to the project site include the Vintners Golf Club.

Discussion:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The proposed trail connection would serve the recreational needs of residents in Napa County and in the region by providing a connection between two existing segments of the Vine Trail, the Commuter Bike Path in Napa and the Yountville Mile. Implementation of the proposed project would likely increase the use of existing trails. However, it is not anticipated that such an increase in use would result in a physical deterioration of existing trail facilities. Therefore, this impact is considered less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Potentially Significant Unless Mitigation Incorporated. The proposed project would include a multi-use trail to connect two existing segments of the Vine Trail, the Commuter Bike Path in Napa and the Yountville Mile. Implementation of the mitigation measures contained in this

Initial Study would ensure that this recreational facility would not have an adverse physical effect on the environment.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	❑	❑	■	❑
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	❑	❑	■	❑
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	❑	❑	❑	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❑	❑	■	❑
e) Result in inadequate emergency access?	❑	❑	■	❑
f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	❑	❑	■	❑

Affected Environment:

The path will be located between the Napa Valley Wine Train right-of-way and Solano Avenue, all within public right-of-way. The proposed trail alignment would cross seven local streets and roads, including Trower Avenue, Orchard Avenue, Salvador Avenue, Darms Lane, Hoffman Lane, Vineyard View Drive, Oak Knoll Avenue, and California Drive. All safety improvements and signing would conform to local standards and the California Manual on Uniform Traffic Control Devices (California MUTCD) standards.

Discussion:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact. The proposed project consists of the installation of a new multi-use trail connection and associated intersection improvements. The proposed project is included in the Napa County Bicycle Plan (2012) as part of the proposed bikeway and trail network. The proposed project is designed to provide a trail connection between two existing segments of Vine Trail and would connect the only two Park-n-Ride facilities in Napa County. According to traffic studies conducted at all local street crossings along the proposed trail alignment, two intersection locations warrant traffic control devices.[49] These two intersections, Solano Avenue /Wine Country Avenue and Solano Avenue/Salvador Avenue are controlled by Caltrans and would require an encroachment permit and approval of a proposed signal plan by Caltrans. After completion, the proposed project would not generate additional vehicle trips, but would increase the effectiveness of the circulation system by adding a new pedestrian and bicycle connection.

During construction, an increase in traffic would occur in the project area from construction vehicles and construction workers accessing the site. Although the proposed project is a Class I trail facility (separated from the roadway), the trail alignment would cross seven local streets and intersection improvements are proposed as part of the project. It is anticipated that construction would occur in two phases due to funding. Phase 1 would include the portion of the trail alignment within the City of Napa. Phase 2 would be within Napa County and the Town of Yountville, pending funding. Construction for each phase would be completed in approximately fifty (50) working days.

The project specification and plans require the contractor to maintain vehicular, pedestrian, and bicycle access as part of their traffic control plan for every phase and at every location of the proposed trail alignment. The specific requirements are included as part of the County, City, and Town standard specifications. These specifications are also consistent with Caltrans construction specifications and require the contractor to provide a traffic control plan that conforms to the California MUTCD. Construction would be advertised and scheduled to take place when local schools are in summer recess to minimize impacts on traffic. Construction hours would be between 8:00 AM and 5:00 PM, Monday through Friday, with flagged one way control limited to the hours between 9:00 AM and 3:00 PM. No detours would be needed. Through access for all modes (vehicles, bicycles, and pedestrians) would be maintained throughout the construction period.

As described above, the proposed trail alignment would cross seven local streets. At these crossings, traffic control would be approved per standard practices as described above. Approximately 0.9 mile of the proposed trail alignment would be located adjacent to the east side of Solano Avenue. At these locations, the proposed trail would be five (5) feet from the existing edge of pavement. During construction of these segments of the trail alignment, flagger-controlled, one-way traffic control per California MUTCD standards would be required in order to provide construction access. Share the Road signs would be posted and bicycle access would be maintained. Any delay would be regulated to less than five minutes. The majority of work on these segments would be conducted within the trail alignment but, at times, one-way flagger control would be required.

[49] NCTPA/NVTA, 2014. Traffic Technical Memorandum. 16 May.

With implementation of these traffic control measures, traffic associated with project construction would have a less than significant impact on the circulation system.

b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

Less Than Significant Impact. See XV(a), above..

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?*

No Impact. The project does not propose any structures that would interfere with air traffic patterns; nor would it increase traffic levels. There is no impact related to air traffic.

d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less Than Significant Impact. The proposed project consists of installation of a multi-use trail and associated intersection improvements, including two bridges and seven local street crossings. As described in Response XV (a) above, traffic studies have been conducted for all local street crossings along the proposed trail alignment. Two intersections have been identified for traffic control devices. These devices would be installed as part of the proposed project along with other safety improvements and signage. No incompatible uses or hazardous design features are associated with operation of the proposed project.

During construction activities, a short-term increase in the potential for accidents involving motor vehicles, bicycles, and/or pedestrians could occur. Because of the temporary disruption to traffic flow, flagged one-way traffic control, the presence of construction equipment near public right-of-way, and the localized increase in traffic congestion, drivers would be presented with unexpected driving conditions and obstacles, potentially resulting in an increase in automobile accidents. Implementation of traffic control measures consistent with County, City and Town specifications, Caltrans regulations, and the California MUTCD would facilitate safe passage of both construction vehicles and private vehicles. As a result, the proposed project would not substantially increase hazards for vehicles due to a design feature or incompatible uses.

The project specification and plans require the contractor to maintain vehicular, pedestrian, and bicycle access as part of their traffic control plan for every phase and at every location of the proposed trail alignment. The specific requirements are included as part of the County, City, and Town standard specifications. These specifications are also consistent with Caltrans construction specifications and require the contractor to provide a traffic control plan that conforms to the California MUTCD. Construction would be advertised and scheduled to take place when local schools are in summer recess to minimize impacts on traffic. Construction hours would be between 8:00 AM and 5:00 PM, Monday through Friday, with flagged one way control limited to the hours between 9:00 AM and 3:00 PM. No detours would be needed.

Through access for all modes (vehicles, bicycles, and pedestrians) would be maintained throughout the construction period.

As described above, the proposed trail alignment would cross seven local streets. At these crossings, traffic control would be approved per standard practices as described above. Approximately 0.9 mile of the proposed trail alignment would be located adjacent to the east side of Solano Avenue. At these locations, the proposed trail would be five (5) feet from the existing edge of pavement. During construction of these segments of the trail alignment, flagger-controlled, one-way traffic control per California MUTCD standards would be required in order to provide construction access. Share the Road signs would be posted and bicycle access would be maintained. Any delay would be regulated to less than five minutes. The majority of work on these segments would be conducted within the trail alignment but, at times, one-way flagger control would be required.

e) Result in inadequate emergency access?

Less Than Significant Impact. The project's effects on emergency access would be limited to construction of the project and would be temporary in nature. Construction of the proposed project would require flagger-controlled, one-way traffic control for construction of a portion of the trail alignment between the hours of 9:00 AM and 3:00 PM. However, emergency access would be maintained and all access would be restored following construction. Therefore, the proposed project would not result in inadequate emergency access.

f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact. The project's effects on traffic would be limited to construction of the project and would be temporary in nature. The Napa County transit service, The Vine, has one route along Solano Avenue. NCTPA would coordinate with the transit authority on the construction schedule to minimize any disruption to transit service. As described above, through access for all modes (vehicles, bicycles, and pedestrians) would be maintained throughout the construction period. No existing sidewalks are located on the east side of Solano Avenue, nearest to trail construction; therefore, pedestrian access would not be impacted. Share the Road signs would be posted and bicycle access would be maintained. Upon completion of construction, traffic would return to the existing condition. Therefore, the project would not conflict with adopted policies or programs supporting alternative transportation.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❑	❑	■	❑
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	❑	■
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	■	❑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	❑	❑	❑	■
e) 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?	❑	❑	❑	■
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❑	❑	■	❑
g) Comply with federal, State, and local statutes and regulations related to solid waste?	❑	❑	❑	■

Affected Environment:

A variety of local and regional purveyors in this area provide and maintain utility and service system facilities associated with electricity, water, stormwater, wastewater, solid waste, communications and natural gas. Existing routes of underground gas and water pipelines and underground fiber-optic cables would remain. Utility poles and overhead utility lines that are in conflict with the proposed trail alignment would be relocated in coordination with the affected utility provider prior to construction of the proposed project.

The proposed trail alignment has been designed to conform to existing grade and provide minimal alteration to existing drainage conditions. Where constrained by property lines, easements or a change in grade such that a built-up slope would not be feasible, short retaining structures would be built. Where sheet flow to the east from Solano Avenue would be blocked by curb and gutter, inlets or other means would be provided to convey stormwater into the existing storm drain system and channels with minimal alteration to existing drainage patterns. These drainage improvements would remain after completion of the proposed project.

Discussion:

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

Less Than Significant Impact. As described in Section IX(a), implementation of the proposed project would not lead to an exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board. The proposed project would entail construction of a Class I trail facility and associated intersection improvements within public right-of-way. Project construction would result in the discharge of potable and non-potable water. Discharge of potable and non-potable water would be in compliance with NPDES Municipal Regional Permit requirements. Dewatering of the work area may be necessary in areas where groundwater is encountered within the planned depth of excavation, depending on surface and groundwater levels at the time of construction. This discharge shall be consistent with RWQCB requirements and as such would not result in a violation of water quality standards or waste discharge requirements.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No Impact. The proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities as no potable water and/or toilets would be provided as part of the proposed trail alignment.

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less Than Significant Impact. Existing storm drain facilities would be maintained as part of the proposed project. As described above, inlets or other means would be provided, where needed, to convey stormwater into the existing storm drain system and channels with minimal alteration to existing drainage patterns. These drainage improvements would remain after completion of the proposed project. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities that could cause significant environmental effects. This impact would be less than significant.

d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

No Impact. See XVII(b), above.

e) *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?*

No Impact. See XVII(b), above

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Project construction would generate wastes including construction materials, trench spoils, and general refuse, and these wastes would need to be disposed of in local or regional facilities. Waste generated from construction would include: non-hazardous metal waste, non-hazardous non-metal waste (concrete rubble, organic waste [vegetation], boxes and crates, refuse from construction workers), and trenching spoils (rubble, soil, broken asphalt). Non-hazardous metal and non-metal waste would be hauled to local disposal centers for recycling or taken to landfills. Trenching and excavation spoils would be reused to the maximum extent possible. The disposal demand would be reasonable relative to the solid waste disposal capacities of area landfills. The project would not generate additional waste once completed. Impacts related to solid waste disposal would be considered less than significant

g) Comply with federal, State, and local statutes and regulations related to solid waste?

No Impact. The project would comply with all federal, State, and local statutes and regulations related to solid waste.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	❑	■	❑	❑
b) Does the project have impacts that are individually limited, but cumulatively considerable? (Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	❑	❑	■	❑
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	❑	■	❑	❑

a) Does the project have the potential to 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, 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?

Potentially Significant Unless Mitigation Incorporated. As described in this Initial Study, implementation of the proposed project would have the potential to adversely impact special-status animal species, wetlands, native grassland and previously undiscovered cultural and paleontological resources and/or human remains. Implementation of the mitigation measures recommended in this Initial Study would ensure that construction and operation of the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) 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.)

Less Than Significant Impact. The impacts of the proposed project would be individually limited and not cumulatively considerable. The proposed project would be a multi-use trail and associated intersection improvements. All environmental impacts that could occur as a result of the proposed project would be reduced to a less-than-significant level through implementation of the mitigation measures recommended in this Initial Study.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Unless Mitigation Incorporated. During project construction, the proposed project could result in environmental effects, such as short term construction noise, air quality, and hazardous materials impacts. Implementation of the mitigation measures recommended in this Initial Study would ensure that construction of the proposed project would not cause adverse effects on human beings.

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