

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation and Monitoring Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the proposed Napa Valley Vine Trail Project - Oak Knoll District (proposed project). The purpose of the MMRP is to ensure the implementation of mitigation measures identified as part of the environmental review for the project. The MMRP includes the following information:

- A list of mitigation measures;
- The party responsible for implementing the mitigation measure;
- The timing for implementation of the mitigation measure;
- The agency/city department responsible for monitoring the implementation; and
- The monitoring action and frequency.

The Napa County Transportation and Planning Agency (NCTPA) must adopt this MMRP, or an equally effective program, if it approves the Napa Valley Vine Trail Project – Oak Knoll District with the mitigation measures that were adopted or made conditions of project approval.

Table 1: Mitigation Monitoring and Reporting Program

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
I. AESTHETICS				
<i>There are no significant impacts related to aesthetics.</i>				
II. AGRICULTURAL RESOURCES				
<i>There are no significant impacts related to agricultural resources.</i>				
III. AIR QUALITY				
<p>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:</p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outline in the mitigation measure. 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. • The Project Contractor is responsible for implementing this measure. 	<p>During construction activities.</p>	

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<p>proper condition prior to operation.</p> <ul style="list-style-type: none"> 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. 				
<p>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).</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Incorporate measure as part of construction specifications. 	<p>NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction.</p>	<p>Review of construction schedule and confirmation by biologic monitor prior to start of construction.</p>	
<p>Mitigation Measure BIO-2: The NCTPA shall implement the following measures to minimize potential construction-related impacts to western pond turtle:</p> <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Include measure as Condition of Approval. Incorporate measure as part of construction specifications. Implementation actions are outlined in the mitigation measure. 	<ul style="list-style-type: none"> NCTPA is responsible for incorporating measure into contract specifications, for ensuring compliance during construction, and providing notification to CDFW. A qualified biologist (approved by the CDFW) is responsible for conducting the 	<ul style="list-style-type: none"> Verification of awareness training prior to construction. Review of exclusion fencing placement prior to construction and weekly monitoring during the construction period. Review of preconstruction survey prior to construction. 	

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<p>workers who do not attend the initial training session prior to their beginning work.</p> <ul style="list-style-type: none"> 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 		<p>training, overseeing fence installation, conducting the survey, relocating individuals, as needed, and weekly monitoring during construction.</p> <ul style="list-style-type: none"> The Project Contractor is responsible for implementing this measure during construction. 	<ul style="list-style-type: none"> Periodic monitoring throughout the construction period. 	

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<p>original point of capture.</p> <ul style="list-style-type: none"> • 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. 				
<p>Mitigation Measure BIO-3: The NCTPA shall implement the following measures to minimize construction-related impacts to Swainson’s hawk:</p> <ul style="list-style-type: none"> • 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) <i>Recommended Timing and Methodology for Swainson’s Hawk Nesting</i> 	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outlined in the mitigation measure. • Incorporate measure 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. 	<ul style="list-style-type: none"> • Review of preconstruction survey prior to initiation of construction. • Review of buffer design and implementation, prior to construction 	

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<p><i>Surveys in California’s Central Valley</i>¹. 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.</p> <ul style="list-style-type: none"> 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 	<p>as part of construction specifications.</p>	<ul style="list-style-type: none"> A qualified biologist is responsible for conducting surveys, delineating buffer areas, and monitoring buffers during construction. 	<p>and throughout the construction period.</p>	

¹ 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).

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<p>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.</p>				
<p>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 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.</p>	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outlined in the mitigation measure. 	<p>If Swainson’s hawks are found nesting, NCTPA is responsible for applying for the ITP, and preparing a mitigation plan.</p>	<p>Review and verification prior to construction.</p>	
<p>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</p>	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outlined in the mitigation measure. • Incorporate measure as part of construction specifications. 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. • A qualified biologist is responsible for conducting surveys, delineating buffer areas, and monitoring buffers during construction. 	<ul style="list-style-type: none"> • Review of preconstruction survey prior to initiation of construction. • Review of buffer design and implementation, once prior to construction and throughout the construction period. 	

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<p>anticipated near the nest.</p> <p>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</p>	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Incorporate measure as part of construction specifications. 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. • The Project Contractor is responsible for implementing this measure. 	<p>During construction activities at the Solano Avenue bridge over Dry Creek.</p>	
<p>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:</p> <ul style="list-style-type: none"> • Salvage and/or recovery requirements, including clearly defined goals focusing on plant establishment (stability, succession, reproduction) and non-native species control measures. 	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outlined in the mitigation measure. 	<p>NCTPA is responsible for implementing this measure.</p>	<p>Upon completion of construction activities.</p>	

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<ul style="list-style-type: none"> 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. 				
<p>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.</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Incorporate measure as part of construction specifications. 	<ul style="list-style-type: none"> NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. The Biological Monitor is responsible for overseeing fencing installation. The Project Contractor is responsible for implementing this measure. 	Review and verification prior to and throughout construction activities.	
<p>Mitigation Measure BIO-9: The contractor shall prepare</p>	<ul style="list-style-type: none"> Include measure as 	<ul style="list-style-type: none"> NCTPA is 	Review and verification	

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<p>and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with RWQCB guidelines. The SWPPP shall include the following major components, at a minimum:</p> <ul style="list-style-type: none"> • 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. 	<p>Condition of Approval.</p> <ul style="list-style-type: none"> • Incorporate measure as part of construction specifications. 	<p>responsible for incorporating measure into contract specifications and for ensuring compliance during construction.</p> <ul style="list-style-type: none"> • The Project Contractor is responsible for implementing this measure. 	<p>prior to and throughout construction activities.</p>	
<p>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</p>	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Incorporate measure as part of construction specifications 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. • The Project Contractor is 	<p>Review and verification prior to and throughout construction activities.</p>	

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<p>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.</p>		<p>responsible for implementing this measure.</p>		
<p>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.</p>	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Incorporate measure as part of construction specifications 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. • The Biological Monitor is responsible for overseeing fencing installation and weekly monitoring during construction. • The Project Contractor is responsible for implementing this measure. 	<p>Review and verification prior to and during construction activities</p>	
<p>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</p>	<ul style="list-style-type: none"> • Include measure as Condition of 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating 	<p>Ongoing during construction activities</p>	

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stockpiled fill and other materials shall be kept at least 50 feet from the channel edges.	<p>Approval.</p> <ul style="list-style-type: none"> Incorporate measure as part of construction specifications 	<p>measure into contract specifications and for ensuring compliance during construction.</p> <ul style="list-style-type: none"> The Project Contractor is responsible for implementing this measure. 		
<p>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.</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Implementation actions are outlined in the mitigation measure 	<ul style="list-style-type: none"> NCTPA is responsible for submitting a permit application and replanting new trees as required. The City of Napa Parks and Recreation Services Department is responsible for approving the application and ensuring appropriate replanting is conducted. 	Review and verification prior to tree removal	
<p>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:</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Incorporate measure as part of construction specifications 	<ul style="list-style-type: none"> NCTPA is responsible for incorporating measure into contract specifications . The Contractor is responsible for 	During construction	

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<ul style="list-style-type: none"> • 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 the TPZ. The project consulting arborist shall be on site during all operations within the TPZ to 		<p>implementing the tree protection measures identified in the arborist report and summarized in this measure.</p> <ul style="list-style-type: none"> • Consulting arborist is responsible for periodic site visits during construction to ensure that tree protection measures are being implemented. 		

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<p>monitor activity.</p> <ul style="list-style-type: none"> • Any pruning required for site preparation shall be performed by a qualified arborist and in accordance with current professional standards.² • A 4 foot ‘HiVis’³ 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 <i>Grading and Drainage Plan: Tree Protection Specifications</i>. • 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 geogrid⁴ 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 				

² Pruning standards set forth in ANSI A300 Part 1-2008, *Pruning* and ISA Best Management Practices *Tree Pruning* 2008.

³ Orange, plastic mesh barrier fencing, Forestry Suppliers Inc.

⁴ Geogrid: plastic mesh such as Tensar TriAx TX 160 Geogrid

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<p>must remain outside of fenced areas at all times.</p> <ul style="list-style-type: none"> • 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. • 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. 				

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<ul style="list-style-type: none"> • 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 excavation⁵ 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 				

⁵ Pneumatic excavation: Air Spade or Air Knife, requiring a trailer mounted air compressor.

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<p>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.</p> <ul style="list-style-type: none"> 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 <i>Phytophthora ramorum</i> shall follow the California Oak Mortality Task Force’s <i>Sudden Oak Death Guidelines for Arborists</i>, including limiting the disposal of infested material to within Napa County. 				
<p>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.</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Implementation actions are outlined in the mitigation measure 	<ul style="list-style-type: none"> NCTPA is responsible for replacing removed trees at a 2:1 ratio. 	<p>Upon completion of construction activities.</p>	
<p>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</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Implementation 	<ul style="list-style-type: none"> NCTPA is responsible for submitting a permit application and 	<p>Review and verification prior to tree removal</p>	

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<p>(one for each removed tree) shall be selected from the Town’s Master Tree List.</p>	<p>actions are outlined in the mitigation measure</p>	<p>replanting new trees as required.</p> <ul style="list-style-type: none"> The Town of Yountville Planning Officer is responsible for approving the application and ensuring appropriate replanting is conducted. 		
<p>V. CULTURAL RESOURCES</p>				
<p>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’Imus” within 250 feet of Vineyard View Drive. The monitoring shall continue until the pile augering is complete, grading and excavation at the location of “Ka’Imus” is complete, or until the monitoring archaeologist, based on field observations, is satisfied that there is no likelihood of encountering intact archaeological deposits.</p> <p>If prehistoric or historic-period archaeological deposits are identified during the monitoring, or during construction in portions of the project site <i>not</i> 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</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Incorporate measure as part of construction specifications. 	<ul style="list-style-type: none"> NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. A qualified archaeologist is responsible for monitoring during construction activities. The Project Contractor is responsible for coordinating and cooperating with the project archaeologist during monitoring, 	<ul style="list-style-type: none"> Prior to and during construction activities. 	

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
<p>requirements and definitions of <i>CEQA Guidelines</i> §15064.5 (c) and PRC §21083.2.</p> <p>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 <i>CEQA Guidelines</i> §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.</p>		<p>worker training, and any stop-work orders if resources are discovered.</p>		
<p>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</p>	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outlined in the mitigation measure. 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. • A qualified paleontologist is responsible for evaluating any resources found 	<p>During construction activities.</p>	

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
<p>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.</p>		<p>inadvertently during construction; and identifying appropriate mitigation measures.</p> <ul style="list-style-type: none"> The Contractor is responsible for coordinating and cooperating with the paleontologist and during any stop-work orders if resources are discovered. 		
<p>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</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Implementation actions are outlined in the mitigation measure. 	<p>NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction.</p>	<p>During construction activities.</p>	

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
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.				
VI. GEOLOGY AND SOILS				
<i>There are no significant impacts related to geology and soils.</i>				
VII. GREENHOUSE GAS EMISSIONS				
<i>There are no significant impacts related to greenhouse gas emissions.</i>				
VIII. HAZARDS				
<p>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:</p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outlined in the mitigation measure. 	<ul style="list-style-type: none"> • NCTPA is responsible for contracting with the appropriate entity to prepare the PSI, and for review and approval of the PSI. • A California Professional Geologist and/or a California Professional Civil Engineer is responsible for preparing the PSI. 	Prior to construction activities.	

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
<p>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.</p> <ul style="list-style-type: none"> • 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. 				

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
<ul style="list-style-type: none"> 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. 				
<p>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.</p> <p>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.</p>	<ul style="list-style-type: none"> Include measure as Condition of Approval. Implementation actions are outlined in the mitigation measure. 	<ul style="list-style-type: none"> NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. The Project Contractor is responsible for implementing this measure. 	Prior to and during construction activities.	
IX. HYDROLOGY AND WATER QUALITY				
<i>There are no significant impacts related to hydrology and water quality.</i>				
X. LAND USE AND PLANNING				

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
<i>There are no significant impacts related to land use and planning.</i>				
XI. MINERAL RESOURCES				
<i>There are no significant impacts related to mineral resources.</i>				
XII. NOISE				
<p>Mitigation Measure NOISE-1: The following multipart measure shall be implemented to reduce construction noise impacts to a less-than-significant level:</p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Include measure as Condition of Approval. • Implementation actions are outlined in the mitigation measure. 	<ul style="list-style-type: none"> • NCTPA is responsible for incorporating measure into contract specifications and for ensuring compliance during construction. • The Project Contractor is responsible for implementing this measure. 	<p>Prior to and during construction activities.</p>	

Mitigation Measures	Implementation Actions	Monitoring/ Reporting Responsibility	Timing Requirements	Verification By/Date
construction contractor. Special attention shall be given to minimizing noise effects near sensitive receptors.				
XIII. POPULATION AND HOUSING				
<i>There are no significant impacts related to population and housing.</i>				
XIV. PUBLIC SERVICES				
<i>There are no significant impacts related to public services.</i>				
XV. RECREATION				
<i>There are no significant impacts related to recreation.</i>				
XVI. TRANSPORTATION/TRAFFIC				
<i>There are no significant impacts related to transportation/traffic.</i>				
XVII. UTILITIES AND SERVICE SYSTEMS				
<i>There are no significant impacts related to utilities and service systems.</i>				