

ADDENDUM to the
MITIGATED NEGATIVE DECLARATION
For the Vasco Road Safety Improvement Project

SCH# 2009062094

Project # 4660-6X4411

CP# 09-55

1. PREFACE

The Vasco Road Safety Improvement Project – Phase 2 (Project), Project No. 4660-6X4411, Brentwood area, in Contra Costa County, was designed to improve the safety of an approximately 1.5-mile section (Stations 290+00 through 363+50) of Vasco Road between the cities of Brentwood and Livermore. This twisting stretch of Vasco Road has heavy, fast-moving traffic and a history of serious accidents. Consistent with Phase 1 of the Project, Phase 2 will construct approximately 6,600 linear feet of concrete median barrier. This will require widening of the roadway by 30 to 35 feet for approximately 6,900 linear feet. This will allow the necessary stopping sight distance around curves in accordance with current Caltrans design standards. This Project was initially designed in 2009 and approved in 2012 but was shelved due to lack of funding for construction. Funding was secured in 2025, and the design has been updated to current standards.

This document serves as an Addendum to the Vasco Road Safety Improvement Project Mitigated Negative Declaration (CP# 09-55, SCH# 2009062094), hereby referred to as the 2009 IS/MND. The 2009 IS/MND for the Project consists of the original MND (dated June 18, 2009, and filed on August 26, 2009), and the 2012 Addendum addressing minor technical changes to the Project's design and construction.

The Contra Costa County Department of Conservation and Development (DCD) is the Lead Agency for the Project, and on August 25, 2009, the Board of Supervisors (Board) approved the Project and filed a Notice of Determination (NOD) with the County Clerk and State Clearinghouse.

2. PURPOSE OF THIS ADDENDUM

This addendum (hereby referred to as the 2026 Addendum) describes the Project elements that have changed since the adoption of the 2009 IS/MND and compares the environmental impacts that would occur under the current proposal to those that were identified in the 2009 IS/MND. This exercise is to ensure that all environmental impacts associated with the 2026 Addendum, as modified, have been analyzed under CEQA.

CEQA PROCESS

Section 15164 of the California Environmental Quality Act (CEQA) Guidelines allows for a lead agency to prepare an addendum to an adopted negative declaration or environmental impact report (EIR) if only minor technical changes or additions are necessary or if none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred. Pursuant to CEQA Section 15162, no subsequent negative declaration shall be prepared for the project unless the lead agency determines, on the basis of substantial evidence in the light of the whole project's administrative record, one or more of the following:

1. Substantial changes are proposed in the project that will require major revisions of the previously negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous negative declaration was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the negative declaration;
 - b. Significant effects previously examined will be substantially more severe than shown in the previous negative declaration;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

- d. Mitigation measures or alternatives which are considerably different from those analyzed in the negative declaration would substantially reduce one or more significant effects on the environment, but the project proponent decline to adopt the mitigation measure or alternative.

The 2026 Addendum demonstrates that the Project changes consist of minor technical changes which would not result in new or substantially greater environmental impacts, and therefore, the Project changes do not meet any of the requirements set forth in Section 15162. According to CEQA Guidelines Section 15164(c) an Addendum does not require circulation for public review but can be included in the project file and/or attached to the MND.

3. PROJECT BACKGROUND

The Contra Costa County Public Works Department (CCCPWD) initiated planning for the Project in 2007. The 2009 IS/MND project description covered both phases of the Project. Phase 1 has been implemented, and the current project will implement Phase 2.

As originally proposed, the Project included the construction of a concrete median barrier along Vasco Road and other general improvements including drainage, retaining walls, signing, striping, turn pockets, guardrail adjustments, and barrier end-treatments. Additionally, the Project proposed two bridge widenings over Brushy Creek. Phase 1 was completed in January 2012, constructing approximately 1 mile of the proposed full 2.5-mile section, consisting of road expansion along the eastern side of Vasco Road. The road was repaved and striped to accommodate the larger lanes and shoulders.

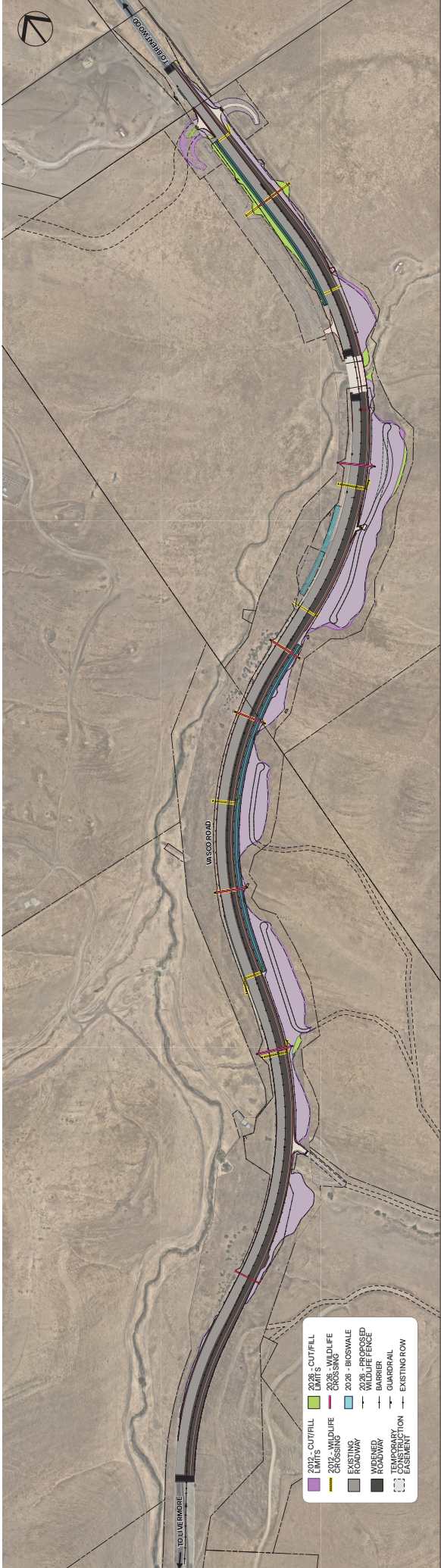
In 2012, the first addendum to the 2009 IS/MND was completed. The 2012 Addendum was required to address technical changes regarding full road closures on limited weekends to allow for Phase II construction. The aspects of Phase II construction requiring road closure include installation of multiple culvert crossings, installation of concrete median barrier, and placement of asphalt paving. The 2012 Addendum determined the technical changes analyzed were consistent with County policies and did not lead directly or indirectly to significant physical changes in the Project site, nor alter the completeness of the previous environmental impact determinations.

PROJECT CHANGES AND EXPLANATION OF THE ADDENDUM

The 2026 Addendum to the 2009 IS/MND identifies changes to Project elements including:

- Redesigned wildlife undercrossings
- Minor changes to bridge design over Brushy Creek
- Addition of stormwater treatment facilities
- Changes to grading and associated excavated material volumes
- Changes to the location of wildlife exclusion fencing
- Relocation of the existing East Bay Regional Parks District access easement to the north, still within Assessor's Parcel No. 001-011-048.

Each of these changes is discussed below and then analyzed using a modified version of the CEQA Guidelines Appendix G checklist. **Figure 1, Project Design Modifications Since 2012 Approval**, provides an overview of project design changes implemented since approval in 2012.



VASCO ROAD IMPROVEMENTS
Project Design Modifications Since 2012 Approval



Wildlife Undercrossings

For both phases of the Project, the 2009 IS/MND identified planned wildlife undercrossings including “up to six 5-foot square undercrossings and seventeen 20- to 24-inch diameter undercrossings”. Eleven of these crossings were anticipated to be in the Phase 2 segment of the Project. The spacing and sizing of the crossings was noted to be dependent on constructability and feasibility. However, small undercrossings were intended to be spaced roughly every 600 feet and large crossings roughly every 1,640 feet. All of the proposed small undercrossings were anticipated to include overhead grating in the median, with median barriers being incorporated with scuppers and breaks.

In 2026, a Wildlife Crossing Alternatives Preliminary Design Report was conducted to review the previously approved wildlife crossings designs from the plans developed in 2012, evaluating each crossing location’s viability based on current site conditions, habitat connectivity, and the specific needs of target species (i.e., special-status species).

Of the eleven planned crossings, seven crossings were subject to significant constraints, such as horizontal bends, steep slopes, undercrossing low points, or limited direct line of sight. These constraints would limit the attractiveness and usefulness of the crossings, and based on current research and understanding of wildlife behavior, it was determined to be unlikely that those crossings would be used by animals if built as planned. Therefore, the seven crossings identified as having significant design constraints were recommended to be eliminated. The remaining four crossings have been modified for optimization of crossing such as length, pipe grades, and profile. In addition to the modified crossings, six new crossings are proposed for the 2026 Addendum, as shown below in Table 1.

Table 1: Proposed Wildlife Crossings 2026

Crossing ID	Station	South Spacing	North Spacing	Pipe Size	Description
Wildlife Crossing	301+00	0	500 feet	48”	Existing
Cattle Crossing	309+00	500 feet	550 feet	N/A	Existing
System 1 (2026)	314+50	550 feet	750 feet	48”	New
System 2 (2026)	322+00	750 feet	800 feet	5’x5’	New (Modified from Nolte design)

Crossing ID	Station	South Spacing	North Spacing	Pipe Size	Description
System 3 (2026)	330+00	800 feet	350 feet	48"	New (Modified from Nolte design)
System 4 (2026)	333+50	350 feet	900 feet	5'x5'	New (Modified from Nolte design)
System 5 (2026)	342+50	900 feet	400 feet	48"	New
Brushy Creek Bridge	346+50	400 feet	900 feet	N/A	Existing
System 6 (2026)	355+50	900 feet	0	24"	New (Modified)

The redesigned crossings have been reviewed and vetted by the East Contra Costa County Habitat Conservancy (ECCC Conservancy), the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW). The Project team met with these agencies on January 15, 2026 to present the updated crossing concepts and keep them apprised of design refinements. Feedback from all three agencies has been incorporated into the design.

Location Changes for Wildlife Crossings

Since the 2012 design, the proposed wildlife crossings have been refined and consolidated from eleven locations to six in the current design. These adjustments reflect updates to roadway geometry and engineering constraints, including the need to avoid sharp horizontal curves, while still maintaining overall connectivity for wildlife movement. The revised crossing locations favor fewer, larger undercrossings spaced at greater intervals, supplemented by strategically placed smaller structures where they best support wildlife use rather than being evenly distributed. Overall, the relocations represent a balance between constructability, roadway safety, and the intent to provide effective wildlife passage opportunities.

Bridge Design over Brushy Creek

The 2009 IS/MND anticipated that each phase of the Project would require widening of one bridge crossing Brushy Creek (Bridge #28C0229). Consistent with the MND, Phase 2 will widen the single-span bridge over Brushy Creek and will include associated drainage improvements, signing, and striping. The MND anticipated the bridge widening would be

between 34 and 24 feet. The proposed widening would be 24 feet, which is within the scope of what was analyzed in the 2009 IS/MND.

The bridge would be constructed from a precast girder with a cast-in-place deck. No foundations would be placed in the creek. The substructure will consist of reinforced concrete seat abutments on driven piles. The construction of the bridge would not require work in the creek, and exclusion fencing would be placed at the ordinary high-water mark. The MND anticipated the widened bridge would free-span the creek channel; the proposed bridge will free-span the creek channel, consistent with the MND, and no falsework is needed.

Stormwater Treatment

The Project would increase the amount of impervious surface in the Project area, therefore it must comply with local C.3 standards. The MND anticipated longitudinal “flow-through planters” for stormwater management, assuming 18” wide and 24” deep trenches backfilled with permeable material and perforated pipe. The planters were anticipated to be located adjacent to the widened roadway, interconnecting with existing drainage systems. Additionally, the 2009 IS/MND anticipated “other devices as outlined in the County’s *Stormwater C.3 Guidebook*” would be implemented.

To meet current stormwater management requirements and to meet the needs of the current 2026 Addendum design, in addition to drainage channels, three bioswales are now proposed. Two would be constructed adjacent to the widened roadway on the west side of Vasco Road, and one would be constructed adjacent to the road on the east side. They are intended to be multi-benefit best management practices (BMPs) under State Water Resources Control Board guidance. The bioswales will function as trash capture devices as well as stormwater treatment and hydromodification improvements. These facilities will be sized to treat and retain water flowing to existing drainage systems which outfall into the creek. The bioswales would be constructed within the original impact area analyzed in the MND.

Grading and Off-Haul Volumes

The 2009 IS/MND estimated approximately 97,000 cubic yards of excavated material (consisting of soil and road material), in which 122,800 will be off hauled. Currently, the 2026 Design refinements are estimated to generate approximately 197,000 cubic yards of excavated material (soil and road materials), in which approximately 156,000 cubic yards will be off hauled. The balance of the excavated material will be used as fill in on-site roadway embankments and backfill behind retaining walls that meet the structural backfill specification requirements. If disposal of spoils on private property is conducted, the

Contractor will arrange for any necessary surveys and applicable studies, and pay all fees associated with the disposal. Arrangements shall include, but not be limited to, entering into agreements with property owners and obtaining necessary permits, license, and environmental clearances. Before disposing of any material outside the County right of way, the Contractor shall furnish to the Engineer satisfactory evidence that the Contractor has entered into agreements with the property owner of the site involved and has obtained the permits, license, and clearances.

Wildlife Exclusion Fencing

Wildlife exclusion fencing will run continuously along both sides of the Project, directly connecting to each undercrossing and extending to the Project termini. As part of the refined design, wildlife fencing will extend beyond the original Area of Potential Effects (APE) and outside the original Project footprint in localized areas to ensure continuous guidance and effective exclusion of wildlife from the roadway. Where fencing extends beyond the original APE, minor grading may be required to accommodate fence installation, earthen jump-outs, and transitions to existing ground conditions. Earthen jump-outs will be installed at appropriate intervals adjacent to the fencing to allow trapped wildlife to escape the roadway, and barriers to cattle will be provided within culverts as needed that will exclude cattle between the right of way and wildlife crossings. Wildlife fencing will complement the design (e.g., large-diameter cattle crossing) to guide animals safely to the wildlife undercrossings.

Parks District Access Easement Relocation

The existing East Bay Regional Parks District (EBRPD) access easement will be relocated to the north, still within Assessor's Parcel No. 001-011-048, to connect to the driveway that was previously identified to be relocated.

The relocation of the EBRPD access easement to open space areas would not require any physical changes, and no construction or other actions would take place related to this project change. See Figure 2 for a depiction of the existing and future access easements.

LEGEND:



EXISTING ACCESS EASEMENT



RELOCATED ACCESS EASEMENT



**MARK
THOMAS**

VASCO ROAD PHASE 2 SAFETY IMPROVEMENTS
E021 - EAST BAY REGIONAL PARK DISTRICT (EBRPD) ACCESS EASEMENT EXHIBIT

4. ENVIRONMENTAL EFFECTS

The following sections address how the updated Project would affect the twenty resource categories in the State CEQA Guidelines Appendix G Environmental Checklist and identifies whether the project changes would result in new or substantially more severe impacts compared to those identified in the 2009 IS/MND.

Aesthetics

The 2009 IS/MND concluded the Project would result in a less than significant impact related to aesthetic resources. This, in part, is due to the extensive landform modifications that were previously completed when constructing Vasco Road. The original construction of the road resulted in extensive cut and fill along the corridor. Additionally, the Project would be construction within an active ranchland (cattle grazing), and a Contra Costa Water District protected watershed. Neither of these are protected aesthetic resources.

As noted in the 2009 IS/MND, Project components such as wildlife fencing, guardrails, and signage would be designed to be consistent with the existing visual environment of the Project site and would provide consistent textural treatments to all retaining walls where feasible. When incorporating the Project changes associated with this Addendum, the aesthetic conditions resulting from the Project would remain similar to conditions analyzed in 2009. Furthermore, the adjustment of wildlife crossing locations and the implementation of the bioswale will not produce meaningful visual changes in the viewshed, as the wildlife locations are within close proximity to those proposed in 2009, and the views of the bioswales would not be noticeable to users of Vasco Road. Therefore, no new or substantially more severe aesthetic resource impacts would occur as a result of the Project changes and no mitigation is required.

Agriculture and Forest Resources

The 2009 IS/MND concluded that the Project would have a less than significant impact on agricultural and forest resources, as there are limited agricultural lands within the Project site. The 2009 IS/MND noted roadway improvements would be highly localized around the existing roadway; however, negligible amounts of grazing land and farmland of local importance would be converted to road right-of-way. As the modified footprint is within the original footprint, as analyzed in the 2009 IS/MND, any agricultural land conversion would be similar to effects analyzed under the 2009 IS/MND, resulting in a less than significant impact. Therefore, no new or substantially more severe agricultural or forest resources impacts would occur as a result of the Project changes and no mitigation is required.

Air Quality

The 2009 IS/MND concluded the Project would have no impact on the implementation of applicable air quality plans. Additionally, it was determined the Project would have a less than significant impact on contribution to an existing/projected air quality violation, cumulatively considerable net increase of any criteria pollutant, exposure of sensitive receptors to substantial pollutant concentrations, and the creation of odors.

Changes in Air Quality Modeling

Since adoption of the 2009 IS/MND, air quality modeling tools and emission factor databases used in California CEQA analyses have been updated to reflect improvements in emissions inventories, equipment standards, and analytical methods (e.g., updates to OFFROAD and EMFAC emissions tool, and adoption of the CalEEMod model). These updates primarily refine the quantification of emissions but do not change the fundamental characterization of construction emissions as short-term, temporary, and dominated by mobile and off-road equipment sources. The Project's construction activities, schedule, and equipment mix remain consistent with those evaluated in the 2009 IS/MND, with the exception that construction equipment and vehicles would now have cleaner engines. The evolution of modeling tools does not, in itself, indicate that previously analyzed construction activities would result in new significant air quality impacts, particularly where the nature, duration, and sources of emissions remain consistent with those previously evaluated.

Consistent with CEQA Guidelines Sections 15161 and 15164, the availability of updated modeling tools, in the absence of new significant impacts or a substantial increase in the severity of previously identified impacts, does not require preparation of a supplemental or subsequent air quality analysis.

Construction Emissions

The 2009 IS/MND included an evaluation of construction-related criteria pollutant emissions and compared estimated emissions to the Bay Area Air Quality Management District (BAAQMD) CEQA significance thresholds in effect at the time. That analysis concluded that construction emissions would remain below applicable regional significance thresholds with implementation of standard construction BMPs.

Construction-period emissions analyzed for the 2012 Design were comprised of two components: 1) onsite construction equipment emissions; and 2) heavy-duty highway vehicle trips (soil off-haul). As discussed above in the project description and analyzed below, changes in excavation and off-haul volumes warrant analysis to determine whether a new or greater air quality impact would occur.

In comparing the project related emission for the 2012 Design versus the 2026 design, material volume differences, primarily (but not exclusively) from grading activities have changed and need to be compared. There are two factors in this comparison of project impacts between the 2012 Design and 2026 Design: 1) construction excavation volume, and 2) off-haul volume of excess excavated material.

In addition to volume differences, the onsite construction vehicle and truck hauling fleet vehicular emissions must also be factored. Significant changes in EPA mandated construction vehicle and truck emissions standards have dramatically reduced vehicular pollutants of concerns over the past 14 years.

Increased Excavation and Off-haul Volumes

The Project as envisioned in 2009 included the construction of significant retaining walls. Following a value analysis, most, if not all, retaining walls were removed in the 2012 Design. Despite the change resulting in increased excavation and off-haul volumes, the 2012 CEQA addendum did not find any new or substantially more severe air quality impacts beyond those considered in the original 2009 IS/MND. Now that the project has been restarted and the design plans have been updated to meet current standards, the excavation volume has increased when compared to the 2012 Design. In order to meet current stormwater treatment requirements, bioretention basins have been added into the 2026 Design, which have increased the excavation and off-haul volumes. Additionally, 2026 Design refinements include improved wildlife crossing structures which have also increased excavation and off-haul volumes.

The table below provides a summary of the excavation and off-haul volumes for the 2012 Design and the 2026 Design, as well as the estimated number of truck trips.

Table 2: Summary of Excavation, Fill, and Off-Haul by Project Design Year

Project Design	Excavation (Cu. Yd.)	Fill (Cu. Yd)	Off-haul (Cu. Yd.)	Truck Trips ¹
2012 Design	152,780	30,095	122,800	6,822
2026 Design	197,000	40,608	156,392	8,703

Source: Mark Thomas, 2026

Notes:¹For the purposes of this table, truck trips are quantified as one-way trips.

Refinements in the 2026 Design have resulted in an increase of approximately 44,000 cubic yards of excavation and an additional 34,000 cubic yards of off-haul material when compared to the 2012 Design.

A separate memorandum was prepared to analyze changes in construction emissions due to the increase in excavation and off-haul volumes and is attached to this 2026 Addendum.

A summary of the analysis for each component of emissions is presented in the following sections.

Analysis of On-Site Construction Equipment Emissions

The additional excavation volumes will require the use of more construction equipment. This analysis focuses on emissions from on-site construction equipment to determine whether, with the increased excavation volumes required to construct the project, there would be a new or more severe environmental impact resulting from on-site construction equipment emissions.

Since 2009, the Environmental Protection Agency (EPA) has required the phasing in of cleaner engines for construction vehicles. Engines are categorized as Tier 1 through Tier 4, with Tier 1 being the most polluting and representing a baseline/business as usual scenario, and Tier 4 engines being the cleanest and best available technology. Between 2008 and 2015, there were progressive requirements for the phasing in of cleaner engines, concluding with the requirement for Tier 4 engines to be used after 2015. The regulations required a 90% to 99% reduction in particulate matter (PM) and nitrogen oxides (NO_x) for non-road diesel engines.

As a result of engine tier regulations by EPA and given the timing of project CEQA clearance (IS/MND in 2009, second addendum in 2026), when the project is constructed the construction emissions will be significantly lower than anticipated in 2009, despite the additional excavation volumes.

In comparing estimated emissions for the 2026 Design with the 2012 Design, because the Tier 4 engines have a 65% reduction in key emissions compared to Tier 2 engines, even when factoring in an increase of 44,000 cubic yards of excavation, total on-site construction equipment emissions will be 65% less than those estimated for the 2012 Design. Therefore, construction equipment emissions under current conditions are expected to be substantially lower than those evaluated for the 2012 Design.

Analysis of Heavy-Duty Highway Vehicle Trips (Soil Off-Haul)

The additional off-haul volumes will require additional truck trips. This discussion focuses on tailpipe emissions from heavy-duty highway vehicle trips required for off-hauling material to determine whether, with the increased off-haul volumes required to construct the project, there would be a new or more severe environmental impact resulting from the additional truck trips.

As mentioned above, the 2026 Design results in an approximate increase of an additional 34,000 cubic yards of off-haul material when compared to the 2012 Design. Construction

hauling trucks, categorized as heavy-duty highway vehicles, must meet EPA 2007/2010 standards (NO_x 0.20 g/bhp-hr, PM 0.01 g/bhp-hr). Starting in 2027, the EPA Clean Trucks Plan will introduce tighter rules (NO_x 0.035 g/bhp-hr), reducing emissions by 82-90%. These standards represent significant reductions in tailpipe emissions for the 2026 Design, when compared to heavy-duty highway vehicle emissions anticipated with the 2012 Design.

In recognition that EPA standards do not always equate to actual changes in fleet mix, we completed a scenario-based calculation of emissions for heavy-duty diesel vehicles. For the purposes of this analysis, project emissions generated from heavy-duty off-haul trucks were estimated using the online EMFAC2025's Project Analysis Tool. EMFAC2025 is specifically designed for estimating emission from on-road mobile sources, such as off-haul trucks, and incorporates California-specific fleet characteristics and regulatory conditions. EMFAC2025 provides built-in on-road vehicle fleet mixes (i.e., distribution of vehicle model years, technologies, and regulatory updates) based on actual vehicle registrations in California and studies conducted by CARB and others that track actual fleet mixes. In the absence of project-specific fleet composition data, the EMFAC2025 aggregate setting was used to supply the mix of model years for the two calendar years modeled (2012 and 2026). This represents a fleet-average emission rate comprised of the combination and weighting of all model years in the analysis year, consistent with CARB guidance. Because this analysis focuses exclusively on emissions from on-road off-haul activities, use of EMFAC provides results that are directly applicable and comparable across the analysis years, whereas CalEEMod outputs would not provide a consistent basis for comparison for this specific emission source. This analysis compared projected emissions for the 2012 Design with projected emissions for the 2026 Design (see attached Memorandum).

Two scenarios were run in EMFAC2025: one scenario with a calendar year of 2012, representing CARB's calculation of fleet mix and emissions in 2012, and one scenario with a calendar year of 2026, representing CARB's calculation of fleet mix and emissions in 2026. Refer to Table 3 below.

Table 3: Off-Haul Emission Comparison

Emission Type	2012	2026	Percent Change
PM _{2.5}	48256.579	3510.740	-93%
PM ₁₀	50438.528	3669.480	-93%
SOx	623.153	741.355	19%
NOx	1551099.262	195614.287	-87%
CO	265640.512	23129.341	-91%

Source: EMFAC2025

Key: PM_{2.5} = Particulate Matter 2.5 micrometers

PM₁₀ = Particulate Matter 10 micrometers

SOx = Sulfur Dioxide

NOx = Nitrogen Oxide

CO = Carbon Monoxide

The results show that the 2026 off-haul scenario would result in significantly lower emissions (reductions of 87-93%) than the 2012 Design for all of the evaluated pollutants with the exception of SOx, despite the increase in truck trips and off-haul volumes. This reduction is attributed to the lower running exhaust emission factors for the applicable on-road heavy-duty diesel truck category in 2026 compared to 2012, which reflects changes in the on-road fleet mix and implementation of regulatory requirements for cleaner engines over time. So, while the total number of truck trips needed to construct the 2026 Design has increased, tailpipe emissions have decreased. As for the SOx emissions, the SOx emissions would be 19 percent higher for the 2026 Design than those assumed for the 2012 Design. Although the 2026 Design would result in a 19 percent increase in SOx emissions, total emission would remain well below applicable Bay Area Air Quality Management District (BAAQMD) thresholds for criteria pollutants, and while slightly elevated for SOx at 744.355 grams, that volume of SOx emissions is below the SOx threshold for 2026.

In addition, it should be noted that SOx emissions calculated using EMFAC2025 may be conservative (i.e., potentially overstated), as the model relies on statewide sulfur fuel assumptions, whereas the BAAQMD enforces more stringent local regulations. Specifically, BAAQMD Regulation 9, Rule 1 limits sulfur content in fuels and restricts emissions from major stationary sources, which reduces the potential for SOx emissions from on-road vehicle activity in the region. Therefore, the overall off-haul truck emissions for the 2026 Design would generally result in lower heavy-duty truck exhaust emissions than the 2012 Design, with the exception of SOx, which remains below the applicable BAAQMD threshold.

In summary, the 2026 Design would result in significantly lower emissions (reductions of 87-93%) than the 2012 Design for all evaluated pollutants with the exception of SOx, whereby SOx still remains below the applicable BAAQMD threshold. In addition, the nature of

construction emissions remains consistent with those previously analyzed, and the emissions would remain temporary and intermittent in nature. Construction emissions would not be expected to exceed regional significance thresholds or result in localized hot-spot impacts, given the rural setting and absence of sensitive receptors in immediate proximity.

Sensitive Receptors

As explained in current BAAQMD guidance, localized exposure impacts from construction emissions are generally of greatest concern near sensitive receptors within close proximity to substantial, long-duration emission sources. The project area remains rural in character, and no new sensitive receptors have been introduced since adoption of the 2009 IS/MND. When considered in the context of the temporary nature of construction emissions, the rural project setting, the absence of nearby sensitive receptors, and the application of standard BAAQMD construction BMPs, construction-related air quality impacts would remain less than significant and would not exceed applicable BAAQMD significance thresholds. No new or substantially more severe air quality impacts would occur, and no additional environmental analysis beyond this Addendum is required.

Operational Emissions

The proposed modifications, including the redesigned wildlife crossings, changes to bridge and roadway design, increased cut and fill volumes, and the addition of bioswales would not result in new or more intensive operational emissions, as the Project does not increase roadway capacity, vehicle speeds, or traffic volumes. Operational conditions would remain consistent with those evaluated in 2009, and no new sources of criteria pollutants, toxic air contaminants, or odors would be introduced.

Therefore, the Project would not result in new or substantially more severe air quality impacts compared to those considered in the 2009 IS/MND.

Biological Resources

The 2009 IS/MND evaluated biological resources and found impacts to be less than significant with mitigation, including implementation of conservation and avoidance measures from the East Contra Costa County Habitat Conservancy Plan/Natural Community Conservation Plan (ECCC HCP/NCCP). Additionally, the ECCC HCP/NCCP provides a process for payment of the rural road and wetland fees required for Project construction.

The 2009 IS/MND analysis documents potential impacts to special-status species, including the following species:

- Pallid Bat (*Antrozous pallidus*)
- Townsend's Western Big-Eared Bat (*Corynorhinus townsendii*)
- Western Red Bat (*Lasiurus blossevilli*)
- Yuma Myotis (*Myotis yumanensis*)
- American Badger (*Taxidea taxus*)
- San Joaquin Kit Fox (*Vulpes macrotis mutica*)
- Western Pond Turtle (*Actinemys marmorata*, *Clemmys marmorata*)
- Western Spadefoot (*Spea hammondi*)
- Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)
- Northern Harrier (*Circus cyaneus*)
- Swainson's Hawk (*Buteo swainsoni*)
- Golden Eagle (*Aquila chrysaetos*)
- Western Burrowing Owl (*Athene cunicularia hypugaea*)
- Loggerhead Shrike (*Lanius ludovicianus*)
- Tricolored Blackbird (*Agelaius tricolor*)
- California Tiger Salamander (*Ambystoma californiense*)
- California Red-legged Frog (*Rana draytonii*)

The following discussion evaluates the changes since certification of the 2009 IS/MND and assesses whether the current project modifications as analyzed in this Addendum would result in new or more severe biological resource impacts.

Since adoption of the 2009 IS/MND, several additional special-status species not covered by the applicable ECC HCP/NCCP have been listed under state or federal regulations including the following species:

- Alameda Whipsnake (*Masticophis lateralis euryxanthus*)
- Bald Eagle (*Haliaeetus leucocephalus*)
- Bank Swallow (*Riparia riparia*)
- Burrowing Owl (*Athene cunicularia*)
- Crotch's Bumblebee (*Bombus crotchii*)
- Longhorn Fairy Shrimp (*Branchinecta longiantenna*)
- Willow Flycatcher (*Empidonax trailii*)

These species were identified based on a review of the California Natural Diversity Database (CNDDB) records for USGS quadrangle containing the Project site.

While these newly listed species are not individually identified as covered species under the HCP/NCCP, the conservation strategy, avoidance measures, and impact minimization

framework established by the ECC HCP/NCCP apply broadly to the types of habitats and biological resources that could support special-status species within the project vicinity. Additionally, the Project would be required to comply with all applicable state and federal regulations for listed species not covered under the HCP/NCCP, including consultation and permitting, as appropriate under the federal Endangered Species Act, California Endangered Species Act, and applicable provisions of the California Fish and Game Code and Clean Water Act. Preconstruction surveys for special-status species and sensitive habitats would be conducted in accordance with regulatory requirements and applicable protocols to ensure implementation of appropriate avoidance and minimization measures.

The Project is located within an existing, maintained roadway corridor and adjacent disturbed areas, and construction activities would remain limited to these previously disturbed and managed areas, although minor expansions of the disturbance footprint would occur in limited locations associated with project features such as bioswales and wildlife crossing refinements. While these minor increases in footprint represent a slight expansion beyond the limits evaluated in the 2009 IS/MND, they occur within the same overall project corridor and does not result in the disturbance of substantially different or higher-value habitats than previously analyzed, nor does the slight footprint expansion introduce new types of impacts or impact pathways to biological resources beyond those previously evaluated.

Project-related biological impacts would be primarily temporary and associated with construction activities. The purpose of the Project is to improve wildlife connectivity and reduce wildlife-vehicle collisions through the installation of optimized crossings, exclusion fencing, and associated features that facilitate safe movement of both non-special and special-status species across the roadway. As a result, the Project would provide a long-term benefit to biological resources by improving habitat permeability and reducing mortality risk.

As such, implementation of the Project would not result in additional biological impacts to special-status species beyond those previously analyzed including species listed in 2009. Although new special-status species have been identified since the adoption of the 2009 IS/MND, the Project would be subject to preconstruction surveys, species-specific avoidance measures, and regulatory permitting requirements, which would ensure that any potential impacts are avoided, minimized, or mitigated consistent with current standards. These requirements ensure that, even if special-status species are present that were not previously documented, potential impacts would be identified through preconstruction surveys and addressed through established regulatory frameworks prior to or during construction. Therefore, the Project would not result in new significant biological impacts

or a substantial increase in severity of biological impacts previously evaluated, and the conclusions of the prior biological analysis remain valid.

The current modifications include redesigned wildlife undercrossings (from 11 possible crossing to 6 optimized crossing based on 2026 alternatives evaluation), adjusted wildlife exclusion fencing to better funnel wildlife, minor design changes to the Brushy Creek bridge (precast girder/cast-in-place deck) that free-span the channel (not including falsework, foundations in the creek, and no in-channel work proposed), and the addition of three bioswales.

Redesigned wildlife undercrossings would reduce the total number of crossings; however, the remaining crossings have been optimized in location and design to maintain wildlife movement and reduce vehicle-wildlife conflicts. The design also incorporates wildlife turnbacks and wildlife refuges (e.g., rock piles) to provide safe stopping areas and guidance for animals approaching the crossings. These changes do not expand the project footprint. Furthermore, adjusted wildlife exclusion fencing is intended to better funnel wildlife toward designated crossing locations and associated turnbacks and refuges, improving the effectiveness of the crossing system. These fencing modifications would occur within previously evaluated areas and would not result in additional habitat loss or fragmentation.

Minor design changes to the Brushy Creek bridge would reduce potential biological impacts by fully free-spanning the channel and conducting all construction work outside of the creek. The revised design eliminates the need for in-channel work, falsework, or foundations within the creek, thereby reducing the potential for disturbance to aquatic habitat and special-status aquatic species related to the design evaluated in 2009.

These bioswales include multi-benefit stormwater BMPs, which would require increase cut/fit and off haul. These bioswales are largely within the existing right-of-way, and within the evaluated impact area in the 2009 IS/MND. Portions of the required cut and fill associated with the northern bioswale would not introduce new sensitive habitats downstream. Construction activities associated with the bioswales would remain subject to the same biological avoidance and minimization measures adopted in the 2009 IS/MND.

As such, the same suite of special-status species identified in 2009 have similar possibility of encountering such species during construction, and all avoidance, minimization, and mitigation measures adopted in the 2009 IS/MND (including ECCC HCP/NCCP Conservation Measures, species-specific protocols, and Mitigation Measures BIO-01 through BIO-03) remain applicable and sufficient to address potential impacts. Furthermore, the ECCC HCP/NCCP remains the active habitat conservation plan and natural community conservation plan for the area and has not been updated since

publication of the 2009 IS/MND. Therefore, the findings of the ECCC HCP/NCCP remains valid for the Addendum. The Project would continue to obtain coverage under the ECC HCP/NCCP, including payment of applicable fees and implementation of required conservation measures, or, for species not covered, obtain any necessary regulatory approvals and permits from resource agencies. Adherence to ECC HCP/NCCP requirements and applicable regulatory permitting processes ensures that impacts would be fully addressed and would not exceed the level of significance identified in the 2009 IS/MND.

Consistent with CEQA Guidelines Section 15162, the proposed modifications do not constitute a substantial change to the Project, do not reflect changes in circumstances that would result in new or more severe biological impacts, and do not involve new information of substantial importance related to biological resources. The incorporation of updated regulatory requirements, preconstruction survey obligations, and continued adherence to the ECC HCP/NCCP coverage and other permitting processes further supports the conclusion that impacts have not increased in severity since the publication of the 2009 IS/MND. In addition, project-related effects would be primarily temporary and construction-related, while the Project would provide long-term operational benefits to wildlife movement and habitat connectivity. With continued implementation of the aforementioned avoidance, minimization, and mitigation measures, the Project would not result in new or substantially more severe impacts to special-status species relative to the 2009 IS/MND.

Cultural Resources

The 2009 IS/MND evaluated cultural resources, including historical, archaeological, and paleontological resources, and determined that all impacts would be less than significant with implementation of Mitigation Measure CUL-01 (Paleontological Resources Monitoring and Mitigation Plan) and Mitigation Measure CUL-02 (Work-Stop Precautions for Discovered Paleontological Resources). The 2009 IS/MND noted that intensive record searches, tribal outreach, coordination with local historical organizations, and pedestrian surveys identified no historical or unique archaeological resources within the APE, and no new information has emerged that would alter that conclusion.

The 2026 footprint would occur largely within the same Area of Potential Effect (APE) as evaluated in 2009. A small portion of grading would extend slightly beyond the previous defined APE to accommodate cut-and-fill requirements, these areas do not include known or potentially sensitive cultural resource locations, and no new historical or archaeological resources have been identified in or adjacent to the refined footprint. Although the footprint is slightly extended, previous surveys have identified no historical or unique archaeological

resources within or adjacent to the APE as analyzed in the 2009 IS/MND. The Vasco Caves archaeological site remains more than 2,100 feet away from the nearest Project element as modified, and improvements such as updated wildlife fencing would continue to limit trespass and inadvertently support the protection of the sensitive resource. Therefore, the increase in footprint would not result in new or more severe impacts related to cultural resources.

As with the 2009 IS/MND, there remains a possibility of encountering previously unknown subsurface archaeological resources or human remains during construction. The Project will continue to implement standard discovery procedures and Mitigation Measure CUL-01 and CUL-02, including paleontological monitoring in areas underlain by the Panoche Formation and appropriate evaluation and treatment of any unanticipated finds in accordance with CEQA Guidelines 15064.5. These measures remain adequate and applicable to the Project.

As the Project refinements do not expand into new geologic units of higher paleontological sensitivity or introduce new ground-disturbing activities beyond those previously contemplated, impacts to paleontological resources will remain less than significant.

The likelihood of encountering human remains continues to be low; however, the Project would comply with Health and Safety Code 7050.5 and Public Resources Code 5097.98 in the event of a discovery. Therefore, the Project would not result in new or substantially more severe cultural resources impacts compared to those considered in the 2009 IS/MND.

Energy

The 2009 IS/MND did not address energy impacts, as this resource category was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation. As such, the design modifications have not changed in a manner that would introduce new or substantially more severe energy impacts, and no substantial changes or surrounding circumstances have occurred. The evolution of the CEQA Guidelines alone does not constitute new information of substantial under CEQA Guidelines 15162. Accordingly, no additional energy analysis is required, and an addendum is the appropriate CEQA documentation pursuant to CEQA Guidelines 15164. Under the current CEQA Appendix G thresholds, construction of the proposed roadway widening, drainage improvements, and wildlife crossings would result in temporary energy consumption through the use of construction equipment, trucks, and worker commute vehicles. These activities would represent a short-term and typical level of fuel and electricity use for a project of this size and would not require unusual or inefficient construction practices.

During operation, the Project would not introduce new land uses or permanent energy-consuming facilities; the roadway would maintain operations similar to existing conditions. The wildlife crossings would not require energy to be used by wildlife. The Project would not increase a substantial increase in energy demand or inefficient, wasteful or unnecessary energy use. Furthermore, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, as it does not alter long-term energy consumption patterns, and is consistent with applicable state energy-efficiency policies. Therefore, the Project would not result in new energy-related impacts that were not addressed in the 2009 IS/MND.

Geology and Soils

The 2009 IS/MND determined all geological and soil-related impacts to be less than significant. The proposed Project modifications would increase the assumed amount of cut from approximately 97,000 cubic yards of excavated material (soil and road materials) to approximately 197,000 cubic yards; however, excavation would occur within the same Project footprint as analyzed in the 2009 IS/MND and would be required to follow all geotechnical recommendations and erosion control measures. This increase in excavation reflects design refinements (i.e., inclusion of bioswales) and overall wildlife undercrossing redesigns that would not expand into new or previously unanalyzed geologic areas. As noted in the 2009 IS/MND, the Project's geotechnical engineer and design engineer reviewed the site geology into account into the Project design and geometry.

As such, the additional cut and fill would not introduce new exposure to seismic hazards, landslides, unstable soils, or expansive soils beyond those evaluated in the original IS/MND. Construction-related erosion and sedimentation risks would continue to be minimized through standards best management practices (BMPs), and compliance with applicable permits.

Therefore, the Project would not result in any new or more severe geological or soils-related impacts compared to those considered in the 2009 IS/MND.

Greenhouse Gas Emissions

Greenhouse gas emissions (GHG) were discussed in the 2009 IS/MND under the Air Quality analysis but not evaluated as a standalone CEQA Appendix G topic, as this requirement was added after the document's preparation.

The proposed modifications to the Project, includes increased cut and fill volumes and design refinements associated with roadway safety and drainage improvements, would generate temporary construction-related GHG emissions from equipment use, material hauling, and worker trips. Such emissions would be short-term and typical for a

transportation improvement project of this scale and would not represent a substantial increase compared to what was originally analyzed. Overall, construction-related greenhouse gas emissions would be generally lower than those analyzed in the 2009 IS/MND due to the reduced number of wildlife undercrossings and the use of more technologically advanced construction equipment compared to 2009, which further reduces greenhouse gas emissions.

The Project does not introduce new land uses, expand roadway capacity, or induce growth; operational conditions would remain the same as existing conditions analyzed in the 2009 2012 IS/MND. The completed improvements would not generate new vehicle trips or long-term energy demand beyond what was analyzed in 2009. As such, the Project would not result in a net increase in operational GHG emissions or impede implementation of statewide climate goals established under Assembly Bill 32 and subsequent GHG reduction strategies.

Given that the Project footprint and purpose is essentially unchanged, the proposed refinements would not cause new or more severe GHG impacts than those described in the original 2009 IS/MND. Therefore, the Project would not result in new or substantially more severe GHG emission impacts compared to those considered

Hazards and Hazardous Materials

The Project does not involve any construction or change in operations that would change the use or handling of any hazardous materials, and would not affect or generate hazardous materials. Therefore, the 2012 IS/MND concluded that the Project would have a less than significant impact on hazards and hazardous materials.

The proposed modifications associated with the 2026 Addendum would not change the use of any hazardous materials or would generate hazardous wastes. Therefore, the Project would not result in new or substantially more severe hazards and hazardous materials impacts compared to those considered in the 2009 IS/MND.

Hydrology and Water Quality

The 2009 IS/MND evaluated potential impacts to hydrology and water quality associated with roadway widening, bridge improvements at Brushy Creek, and associated drainage work, and found impacts to be less than significant with implementation of standard construction BMPs, ECCC HCP/NCCP measures, and by following stormwater compliance requirements.

The design modifications include a free-span bridge over Brushy Creek with no in-channel work, installation of three bioswales for stormwater treatment, and related adjustment to

drainage facilities. Such modifications would not introduce new hydrologic pathways, alter creek hydrology, or create additional potential for erosion, sedimentation, or pollutant discharge beyond what was previously analyzed. The bioswales function as multi-benefit stormwater treatment BMPs consistent with current C.3 and State Water Board requirements, and would improve water quality compared to the 2009 design. Additionally, drainage improvements, storm water treatment and erosion control facilities, and inclusion of retaining walls including Mechanically Stabilized Earth (MSE) walls would further address potential water quality concerns.

Construction activities would continue to be governed by the Project's Stormwater Pollution Prevention Plan (SWPPP), erosion and sediment control measures, spill prevention protocols, and ECCC HCP/NCCP Conservation Measures (including CM 1.10 and CM 2.12), which remain applicable and sufficient to minimize potential short-term water quality effects. The proposed modifications as analyzed in the Project does not modify existing drainage patterns in a manner that would increase runoff, erosion, flooding, or pollutant loading, and does not expand work into new hydrologically sensitive areas. Therefore, no new or substantially more severe hydrological and water quality impacts would occur as a result of Project, and no mitigation is required.

Land Use and Planning

The 2009 IS/MND concluded that no impacts related to land use and planning would occur. No land use updates have occurred since the publication of the 2009 IS/MND, and the 2026 Addendum would not result in a change to land use. Therefore, no new or substantially more severe land use impacts would occur as a result of Project, and no mitigation is required.

Mineral Resources

The 2009 IS/MND concluded that no impacts related to mineral resources would occur. The Project site is not located in an area that contains significant mineral deposits. Therefore, no new or substantially more severe mineral resource impacts would occur as a result of Project, and no mitigation is required.

Noise

The IS/MND concluded that impacts from construction and operation would be less than significant. This, in part, is due to the lack of nearby sensitive receptors. As noted in the 2009 IS/MND, construction activities would generally produce noise levels of approximately 86 decibels (dBA) from 50 feet from the noise source. The design modifications associated with the Project would not introduce new noise sources as Vasco Road would continue to operate at existing noise levels. As explained in the 2009 IS/MND,

construction noise would be temporary in nature and would not be near sensitive receptors. Furthermore, contract specifications will require the use of properly tuned and muffled equipment will be used to minimize noise generated as a result of construction. Therefore, no new or substantially more severe noise related impacts would occur as a result of the Project, and no mitigation is required.

Population and Housing

The 2009 IS/MND concluded that no impacts related to population and housing would occur. Similarly, the Project does not include construction of new housing, removal of housing, or affect planned and approved population growth in the area. Therefore, no new or substantially more severe population and housing impacts would occur as a result of Project, and no mitigation is required.

Public Services

The 2009 IS/MND concluded that no impacts on fire protection, police protection, schools, parks, or other public facilities would occur. Similarly, the 2026 Addendum would not result in increased capacity for Vasco Road and would not require additional facilities. Therefore, no new or substantially more severe public services related impacts would occur as a result of Project, and no mitigation is required.

Recreation

As explained in the 2009 IS/MND, the East Bay Regional Park District owns and manages the Vasco Caves Preserve, which is adjacent to the Project site. However, it was determined no increase in use would occur for that facility. Similarly, the Project would not increase in usage for the Vasco Caves Preserve or require the creation of new recreational facilities. Therefore, no new or substantially more severe recreation-related impacts would occur as a result of Project, and no mitigation is required.

Transportation

The 2009 IS/MND concluded construction and operations-related vehicle trips would have a less than significant impact on the capacity of the existing circulation system. Additionally, the 2009 IS/MND concluded the Project would have no impacts on hazards due to design features, inadequate emergency access, inadequate parking capacity, and on policies and programs supporting alternative transportation.

Furthermore, the 2012 Addendum identified technical changes to the design including implementation of a full road closure on a limited number of weeks for Phase II construction to allow for installation of multiple culvert crossings under the roadway, installation of a concrete median barrier, and placement of asphalt paving. This design

change has been maintained and would be implemented as discussed in the 2012 Addendum. As determined by the 2012 Addendum, this design change was consistent with the original design and would not alter the adequacy or the completeness of the environmental impacts analyzed in the 2009 IS/MND.

In addition, the revised roadway Project elements and wildlife crossing designs have been updated to meet current roadway safety standards, further avoid impacts to Brushy Creek, and to optimize wildlife permeability. Updating wildlife crossing spacing and fencing locations were specifically developed to reduce wildlife-vehicle strike potential compared to the 2009 design, further enhancing roadway safety without altering traffic volumes or operational characteristics.

Since the certification of the 2009 IS/MND, the evaluation of transportation impacts has changed under CEQA. Senate Bill (SB) 743 eliminated automobile level of service (LOS) as the primary metric for evaluating transportation impacts under CEQA, and adopted a vehicle miles traveled (VMT)-based methodology that better accounts for greenhouse gas emissions and implements the State's multimodal transportation objectives. The CEQA Guidelines were subsequently amended to implement this VMT-focused approach, consistent with State climate and transportation policies. Courts have consistently held that changes in analytical methodology or regulatory standards, by themselves, do not trigger the need for supplemental environmental review. As recognized in *Olen Properties Corp. v. City of Newport Beach* (2005), a change in standards or guidelines does not equate to new environmental impacts or new information under CEQA.

As such, the change from LOS to VMT as the CEQA transportation metric does not constitute new information of substantial importance or a change in circumstance requiring additional environmental review, as the relationship between automobile travel and greenhouse gas emissions was well documented and known at the time of the 2009 IS/MND was adopted.

Therefore, the Project would not result in new or substantially more severe transportation impacts compared to those considered in the 2009 IS/MND.

Tribal Cultural Resources

The 2009 IS/MND addressed impacts on tribal cultural resources within the "Cultural Resources" section of the document, as the tribal cultural resources category was not part of the CEQA Appendix G Environmental Checklist at the time of preparation. The 2009 IS/MND concluded that there are no historical or unique archaeological resources within the area of potential effect that require further evaluation, and there is no need for further monitoring, testing, and/or mitigation.

However, the 2009 IS/MND noted there is always the potential to unearth cultural resources during construction; therefore, the Project would be required for construction crews to stop work in the event that subsurface resources are encountered during construction and would be required to contact CCCPWD immediately.

The Project changes remain within the previously analyzed Area of Potential Effects (APE) (with the minor exception of fencing and for the construction of bioswales, as noted earlier in this document). These areas represent slight refinements of the same improvements evaluated in 2012 and do not extend into new terrain known or suspected to contain cultural or tribal resources. The modifications do not introduce substantial new ground disturbance beyond what was generally anticipated (i.e., cut-and-fill volumes) and do not occur in an area with identified tribal sensitivity or prior cultural findings.

Furthermore, the slight increase in the APE is located directly adjacent to the 2009 proposed excavation area. The increase in excavation volumes is required for construction of the proposed bioswale located along the northern portion of Vasco Road. As the design is largely unchanged aside from the updated earthwork volumes, and no new tribal information or resource indicators have emerged, the proposed improvements would not cause a substantial adverse change in the significance of any tribal cultural resources.

Utilities and Service Systems

The 2009 IS/MND concluded that the Project would have no impact on utilities and service systems, including new water and wastewater services, sufficient water supplies and wastewater services, and compliance with federal, state, and local regulations related to solid waste. As noted in the 2009 IS/MND, due to the quantity of impervious surface required for Project construction, the project will conform to Provision “C.3” of the NPDES permit governing discharges from the municipal storm drain systems of Contra Costa County. The 2009 IS/MND design included “flow-through planters” in the road right of way adjacent to the roadway to satisfy requirements.

The design modifications include three bioswales as part of its stormwater treatment system, consistent with the current C.3 and State Water Board requirements. These facilities operate independently of municipal utility networks and would not generate new demand for water, wastewater, or other public services. Therefore, the Project would not result in new or substantially more severe utilities and service system impacts compared to those considered in the 2009 IS/MND.

Wildfire

The 2009 IS/MND did not address wildfire impacts, as this resource category was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of

preparation. As such, the design modifications as analyzed, have not changed in a manner that would introduce new or substantially more severe wildlife impacts, and no substantial changes or surrounding circumstances have occurred. Changes to the CEQA Guidelines alone do not constitute new information of substantial importance under CEQA Guidelines 15162. Accordingly, no additional wildlife analysis is required, and an addendum is the appropriate CEQA documentation pursuant to CEQA Guidelines 15164.

The Project is located within a State Responsibility Area (SRA), which became effective April 1, 2024. The entirety of the Project alignment is within a high Fire Hazard Severity Zone (FHSZ). Due to the nature of the Project improvements (i.e., widening of Vasco Road and the construction of wildlife crossings), the Project would not introduce new land uses that could impair implementation of, or physically interfere with an adopted response plan or emergency evacuation plan. The Project would maintain existing roadway function, and during operation, would improve roadway geometry and drainage, thereby supporting emergency access.

Construction activities would be temporary and governed by standard traffic management and emergency access requirements. The Project does not involve habitable structures or permanent human occupancy, and would not require installation or maintenance of new infrastructure that would increase fire risk or lead to the spread of wildfire. Finally, the Project would not expose people or structures to significant risks, including downslope or downstream hazards such as flooding, landslides, or post-fire run-off.

Therefore, the Project would not result in any new wildfire-related impacts which were not discussed in the 2009 IS/MND.

5. CONCLUSION

As described above in the Project Description and Environmental Effects, none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent environmental document has occurred. As documented throughout the environmental effects discussion, Project modifications within the existing Project site would:

- Not result in any new significant environmental effects, and
- Not substantially increase the severity of previously identified significant environmental effects

In addition, no new information of substantial importance has arisen that shows that:

- The project would have new significant effects,
- The project would have substantially more severe effects,

- Mitigation measures previously found to be infeasible would in fact be feasible, or
- Mitigation measures that are considerably different from those analyzed in the 2009 IS/MND and 2012 Addendum would substantially reduce one or more significant effects on the environment.

Therefore, the differences between the Project as described in the 2009 IS/MND and the 2012 Addendum, and as described in the 2026 Addendum's project description, constitutes changes consistent with State CEQA Guidelines Section 15164. This 2026 Addendum demonstrates that no subsequent negative declaration is required for the Project.

MEMORANDUM

To: Dale Dennis Project No.: 25-B1260
From: Sasha Dansky, Catherine Ginn, Brianna Bohonok, Danielle Keith
Date: June 2, 2026
RE: **Vasco Rd. Widening 2026 CEQA Addendum: Pollutant Emissions During Construction**

Introduction

This memorandum has been prepared to support the 2026 California Environmental Quality Act (CEQA) Addendum to the approved 2009 Initial Study/Mitigated Negative Declaration (IS/MND) and 2012 Addendum prepared for the Vasco Road Widening Project – Phase 2 (Project). The 2009 IS/MND determined that all impacts related to air quality would be less than significant, and no mitigation was required. A brief project covered in the 2009 IS/MND descriptions is provided below, along with a comparison of the 2012 Design with the 2026 Design, which is being addressed in the 2026 CEQA Addendum.

Project Description

The Project (Project No. 0662-6R4255) is located in the Brentwood area, in Contra Costa County, and was designed to improve the safety of an approximately 1.5-mile section (Stations 290+00 through 363+50) of Vasco Road between the cities of Brentwood and Livermore. This twisting stretch of Vasco Road has heavy, fast-moving traffic and a history of serious accidents. Consistent with Phase 1 of the Project, Phase 2 will construct approximately 6,600 linear feet of concrete median barrier. This will require widening of the roadway by 30 to 35 feet for approximately 6,900 linear feet. This will allow the necessary stopping sight distance around curves in accordance with current Caltrans design standards. This Project was initially designed and approved in 2012 but was shelved due to lack of funding for construction. Funding was secured in 2025, and the design has been updated to reflect current standards.

2026 Project Changes

In comparing the 2026 Design to the 2012 Design, the following changes to Project elements were identified:

- Redesigned wildlife undercrossings
- Minor changes to bridge design over Brushy Creek
- Addition of stormwater treatment facilities
- Changes to excavation and associated excavated material volumes

- Changes to the location of wildlife exclusion fencing

Relocation of the existing East Bay Regional Parks District access easement to the north, still within Assessor's Parcel No. 001-011-048.

Prior Air Quality Impact Analysis

Air quality impacts assessed as part of the original 2009 IS/MND were comprised of two components: 1) heavy-duty highway vehicle trips (soil off-haul), and 2) onsite construction equipment emissions. In comparing the project related emission as envisioned in the 2012 Design versus the 2026 Design, material volume differences, primarily (but not exclusively) from grading activities have changed and need to be compared. There are two factors in this comparison of project impacts between the 2012 Design and the 2026 Design: 1) construction excavation volume and off-haul volume of excess excavated material.

In addition to volume differences, the onsite construction vehicle and truck hauling fleet vehicular emissions must also be factored. Significant changes in EPA mandated construction vehicle and truck emissions standards have dramatically reduced vehicular pollutants of concern over the past 14 years.

Increased Excavation and Off-haul Volumes

The Project, as envisioned in 2009, included construction of significant retaining walls. Following a value analysis, most of the retaining walls were removed in the 2012 Design. The Project was put on hold due to a lack of funding but the Project was restarted in 2025.

Now that the project has been restarted and the design plans have been updated to meet current standards (2026 Design), the excavation volume and off haul volumes have increased when compared to the 2012 Design. In order to meet current stormwater treatment requirements, bioretention basins have been added into the 2026 Design, which have also increased the excavation and off-haul volumes. Additionally, 2026 Design refinements include improved wildlife crossing structures which have also increased excavation and off-haul volumes.

The table below provides a summary of the excavation and off-haul volumes for the 2012 Design and the 2026 Design, as well as the estimated number of truck trips.

Project Design	Excavation (Cu. yd.)	Fill (Cu. yd.)	Off-haul (Cu. Yd.)	Truck Trips¹
2012 Design	152,780	30,095	122,800	6,822
2026 Design	197,000	40,608	156,392	8,703

Source: Mark Thomas, 2026

Notes:¹For the purposes of this table, truck trips are quantified as one-way trips.

Truck Hauling Fleet (Heavy-Duty Highway Vehicle) Emissions Analysis

The additional off-haul volumes will require additional truck trips. This discussion focuses on tailpipe emissions from heavy-duty highway vehicle trips required for off-hauling material to determine whether, with the increased off-haul volumes required to construct the 2026 Design, there would be a new or more severe environmental impact resulting from the additional truck trips. As shown in the table above, the 2026 Design results in an approximate increase of an additional 34,000 cubic yards of off-haul material when compared to the 2012 Design.

The California Air Resources Board (CARB) is the state agency responsible for developing and implementing air quality regulations and maintaining emissions inventories for mobile sources in California. Through the Truck and Bus Regulation program run by CARB, as of January 1, 2023, all diesel-powered vehicles operating in California, with a gross vehicle weight rating over 14,00 lbs. (i.e., heavy-duty vehicle) must have a 2010 or newer engine and emission system with few exceptions. As heavy-duty on-road vehicles are such a significant source of pollutants, the Truck and Bus Regulation is one of the most far-reaching and important tools to reduce smog-forming and toxic emissions and protect public health (CARB, 2008).

To support efforts in predicting tailpipe emissions, CARB has developed the EMFAC model which quantifies emissions from on-road vehicle fleets by integrating data on vehicle activity, fleet composition, emission control technologies, and regulatory requirements. EMFAC operates by applying detailed, calendar-year-specific emission rates and fleet turnover assumptions, reflecting the effects of regulations such as diesel in-use fleet rules to generate emission estimates.

Today, heavy-duty highway vehicles must at a minimum meet EPA 2007/2010 emissions standards (NO_x 0.20 g/bhp-hr, PM 0.01 g/bhp-hr). Starting in 2027, the EPA Clean Trucks Plan will introduce tighter rules (NO_x 0.035 g/bhp-hr), further reducing emissions by 82-90%.¹ These standards represent significant reductions in tailpipe emissions when compared to heavy-duty highway vehicle emissions in 2012.

Methodology and Assumptions

This analysis compares construction haul truck emissions projected for the 2026 Design to those projected for the 2012 Design.

¹ This information is provided for qualitative consideration, as when the project is constructed the off-haul truck fleet mix may include trucks with engines meeting this requirement. The quantitative analysis presented in this memo does not assume any trucks would meet this standard, in order to provide a conservative analysis of tailpipe emissions.

For the purposes of this analysis, project emissions generated from heavy-duty off-haul trucks were estimated using the online EMFAC2025's Project Analysis Tool. EMFAC2025 provides built-in on-road vehicle fleet mixes (i.e., distribution of vehicle model years, technologies, and regulatory updates²) based on actual vehicle registrations in California and studies conducted by CARB and others that track actual fleet mixes. In the absence of project-specific fleet composition data, the EMFAC2025 aggregate setting was used to supply the mix of model years. This represents a fleet-average emission rate comprised of the combination and weighting of all model years in the analysis year, consistent with CARB guidance.

Using this framework, construction heavy-duty off-haul truck emissions were evaluated using a simplified emissions framework, where total emissions are a function of:

- The number of haul truck trips and trip distance (i.e., round-trip), and
- The emissions generated (i.e., emission factor)

Emissions for each analysis year were calculated as:

Emission (EM) year pollutant = Vehicle Miles Traveled (VMT) year × Emission Factor (EF) year pollutant

Where:

- EM year pollutant = off-haul truck emissions for the subject year and pollutant;
- VMT year = total off-haul truck vehicle miles traveled during subject year;
- EF year pollutant = EMFAC running exhaust emission factor for the applicable on-road heavy-duty diesel truck category, subject year, and specific pollutant

A haul distance of 24 miles was assumed to account for an approximately 12-mile trip from the project site to the nearest off-haul disposal location, including the 12-mile return trip back to the project site. This distance was applied consistently to both the 2012 Design and the 2026 Design, because it can reasonably assume that regardless of the year of construction, the contractor would opt to use the closest available disposal site. CalEEMod documentation recognizes haul truck import/export activity in terms of round trips; therefore, use of a roundtrip haul distance is appropriate where truck trips are evaluated on a roundtrip basis.

² EMFAC2025 relies on calendar-year emission factors for the applicable on-road heavy-duty diesel truck category. It accounts for the average California on-road fleet in operation in each calendar year, including fleet turnover assumptions and applicable regulatory updates.

The comparison between the 2012 Design and the 2026 Design conditions (i.e., delta of change) was calculated as:

$$\Delta EM = EM_{2026} - EM_{2012}$$

The percent change was calculated as:

$$\Delta EM = (EM_{2026} - EM_{2012}) / EM_{2012} \times 100$$

Results

Two scenarios were run in EMFAC2025: one scenario with a calendar year of 2012, representing CARB's calculation of fleet mix and emissions in 2012, and one scenario with a calendar year of 2026, representing CARB's calculation of fleet mix and emissions in 2026.

Emission Type	2012	2026	Percent Change
PM _{2.5}	48256.579	3510.740	-93%
PM ₁₀	50438.528	3669.480	-93%
SO _x	623.153	741.355	19%
NO _x	1551099.262	195614.287	-87%
CO	265640.512	23129.341	-91%

Source: EMFAC2025

Key: PM_{2.5} = Particulate Matter 2.5 micrometers

PM₁₀ = Particulate Matter 10 micrometers

SO_x = Sulfur Dioxide

NO_x = Nitrogen Oxide

CO = Carbon Monoxide

The results show that the off-haul for the 2026 Design would result in significantly lower emissions (reductions of 87-93%) for most evaluated pollutants, despite the increase in truck trips and off-haul volumes. This reduction is attributed to the lower running exhaust emission factors for the applicable on-road heavy-duty diesel truck category in 2026 compared to 2012, which reflects changes in the on-road fleet mix and implementation of regulatory requirements for cleaner engines over time. So, while the total number of truck trips needed to construct the project has increased, tailpipe emissions have decreased.

SO_x emissions would be slightly higher for the 2026 Design than those calculated for the 2012 Design. Although the project would result in a 19 percent increase in SO_x emissions, total emission would remain well below applicable Bay Area Air Quality Management District (BAAQMD) thresholds for criteria pollutants, and while slightly elevated for SO_x at 744.355 grams, that volume of SO_x emissions is below the SO_x threshold for 2026. It should be noted that SO_x emissions calculated using EMFAC2025 may be conservative (i.e., potentially overstated), as the model relies on statewide sulfur fuel assumptions, whereas the BAAQMD enforces more stringent local regulations. Specifically, BAAQMD

Regulation 9, Rule 1 limits sulfur content in fuels and restricts emissions from major stationary sources, which reduces the potential for SO_x emissions from on-road vehicle activity in the region. Therefore, the overall off-haul truck emissions would generally result in lower heavy-duty truck exhaust emissions than the prior analysis, with the exception of SO_x, which remains below the applicable BAAQMD threshold.

Construction Equipment Emissions Analysis

The additional excavation volumes required for the 2026 Design when compared to the 2012 Design will require the use of more construction equipment. This analysis focuses on emissions from on-site construction equipment to determine whether, with the increased excavation volumes required to construct the project, there would be a new or more severe environmental impact resulting from on-site construction equipment emissions.

Since 2012, the Environmental Protection Agency (EPA) has required the phasing in of cleaner engines for construction vehicles. Engines are categorized as Tier 1 through Tier 4, with Tier 1 being the most polluting and representing a baseline/business as usual scenario, and Tier 4 engines being the cleanest and best available technology. Between 2008 and 2015, there were progressive requirements for the phasing in of engines, concluding with the requirement for Tier 4 engines to be used after 2015. The regulations required a 90% to 99% reduction in particulate matter (PM) and nitrogen oxides (NO_x) for non-road diesel engines. Prior analysis evaluated construction equipment emissions based on earlier engine emission tiers (pre-Tier 4). EPA requirements now mean that all construction equipment used on the project must meet the most stringent Tier 4 requirements and the emissions from the project in 2026 will be based on construction equipment with only Tier 4 engines.

Methodology and Assumptions

Construction equipment emissions are evaluated using the product of construction excavation volume and the construction vehicle equipment tier emission factor of the construction vehicles assumed to be performing the excavation activity. Put another way, construction emissions in each year of the analysis will be the volume of material being excavated times the emissions factor of the equipment tier doing that work. We express construction equipment emissions as:

$$EM_{\text{year}} = V_{\text{year}} \times EQ_x$$

Where:

V_{year} = Volume in subject year, where the subject year is 2012 and 2026

EM_{year} = Excavation emissions of the subject year analysis based on the excavation volume and the equipment emission tier of the construction equipment assumed to be doing the work in the subject year

EQ_x = Emissions Factor for Tier x Construction Vehicle equipment, where x is either 1, 2, or 4

The Emissions Factor EQ_x represents relative emission factors by engine tier. EQ_1 , the baseline equipment emission factor, reflects the emissions generated by the older, higher polluting Tier 1 engines. EQ_2 reflects the emissions generated by construction equipment meeting the Tier 2 emissions standards which were in use in 2012 and were 50% less polluting than the Tier 1 engines. Stated another way: $EQ_2 = 0.5EQ_1$. EQ_4 reflects the emissions generated by current, modern construction equipment meeting the Tier 4 emissions standards which are 95% less polluting than the Tier 1 engines. Stated another way: $EQ_4 = 0.05EQ_1$.

Results

2012 CEQA Addendum Construction Emissions

$$V_{2012} \cong 153,000 \text{ Cu. Yd.}$$

$$\begin{aligned} EM_{2012} &= EQ_2 \times (150,000) \\ &= 153,000 EQ_2 \end{aligned}$$

$$EQ_2 = 0.5 EQ_1$$

Therefore,

$$EM_{2012} = 76,500 EQ_1$$

Proposed 2026 CEQA Addendum Construction Emissions

$$V_{2026} = 197,000 \text{ Cu. Yd.}$$

$$\begin{aligned} EM_{2026} &= EQ_4 \times (197,000) \\ &= 197,000 EQ_4 \end{aligned}$$

$$EQ_4 = 0.05 EQ_1$$

Therefore,

$$EM_{2026} = 9,850 EQ_1$$

The Tier 4 equipment represents a substantial reduction in emissions per unit of activity. Accordingly, construction equipment operating at Tier 4 standards produces approximately 5 percent of the emissions associated with baseline equipment, such that the reduction in emissions per unit of activity outweighs the increase in construction activity.

Therefore, construction equipment emissions under the 2026 Design are expected to be substantially lower than those evaluated for the 2012 Design.

Conclusion

Truck Hauling Fleet (Heavy-Duty Highway Vehicle) Emissions

The increase in off-haul truck trips for construction-related activity for the 2026 Design does not result in emissions exceeding those for the 2012 Design. Therefore, no new or more severe impacts would occur.

Construction Equipment Emissions

Emissions from construction equipment would be significantly lower for the 2026 Design than for the 2012 Design, even with an increase in construction equipment activity. No new or greater impacts would occur.

Therefore, project modifications would not result in new or more severe air quality impacts for the 2026 Design than those identified for the 2012 Design, and preparation of further air quality analysis is not warranted.

EMFAC 2025 Result Analysis

EMFAC2025 Result Analysis

Total Off-Haul VMT = Truck Trips x Haul Trip Distance

	Truck Trips	Haul Distance*	VMT
2012	6822	24	163728
2026	8703	24	208872

*Assumption for round trip - per CARB (source:
https://www.caleemod.com/documents/user-guide/CalEEMod_User_Guide_v2022.1.pdf)

Emissions by Pollutant Calc : Emissions = VMT x EF

Year	VMT	Emission Type	EF	Emissions
2012	163728	PM 2.5	0.2947363	48256.5797
2012	163728	PM 10	0.3080629	50438.5281
2012	163728	Sox	0.003806	623.153248
2012	163728	Nox	9.4736347	1551099.262
2012	163728	CO	1.6224501	265640.5125

Emissions by Pollutant Calc : Emissions = VMT x EF

Year	VMT	Emission Type	EF	Emissions
2026	208872	PM 2.5	0.0168081	3510.7404
2026	208872	PM 10	0.0175681	3669.480502
2026	208872	Sox	0.0035493	741.3555184
2026	208872	Nox	0.9365271	195614.2875
2026	208872	CO	0.1107345	23129.34115

Comparison btwn 2012/2026: Delta of Change = E2026 - E2012 / E2012 X 100)

Emission Type	2012	2026	% Change
PM 2.5	48256.58	3510.7404	-92.72485
PM 10	50438.53	3669.480502	-92.72485
Sox	623.1532	741.3555184	18.968411
Nox	1551099	195614.2875	-87.38867
CO	265640.5	23129.34115	-91.29299

Assumptions Used:

Project-specific and general contractor fleet data is NOT available (i.e.,
unable to assign spceific engine model year assumptions)

EMFAC relies on calendar-year emission factors for the applicable on-road heavy-duty diesel truck category. It accounts for the AVERAGE CA on-road fleet operating in each calendar year which includes fleet turnover and applicable regulations.

Use of 2012 and 2026 aggregate information

Assumed truck speed of 55mph applied

EMFAC2025 Output (2012/2026)

EMFAC2025 Output (2012/2026)

calend	season	sub_ar	vehicle	fuel	temper	relative	proces	speed	polluta	emissi	rate
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	PM2_5	0.294736	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	PM10	0.308063	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	CH4	0.019688	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	CO2	1150.721	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	ROG	0.42387	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	TOG	0.482544	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	PM	0.309922	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	SOx	0.003806	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	NOx	9.473635	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	CO	1.62245	
2012	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	HC	0.334705	

calend	season	sub_ar	vehicle	fuel	temper	relative	proces	speed	polluta	emissi	rate
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	PM2_5	0.016808	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	PM10	0.017568	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	CH4	0.001454	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	CO2	1073.096	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	ROG	0.031296	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	TOG	0.035628	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	PM	0.017674	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	SOx	0.003549	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	NOx	0.936527	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	CO	0.110735	
2026	Annual	Contra Co	Truck	Dsl	70	20	RUNEX	65	HC	0.024713	

ADDENDUM to the
MITIGATED NEGATIVE DECLARATION
for the Vasco Road Safety Improvement Project

SCH# 2009062094
Project # 0662-6R4254/4255
CP# 09-55

PREFACE

The Vasco Road Safety Improvement Project Mitigated Negative Declaration (MND) evaluated the proposed project which consists of safety improvements to a 2.5 mile long stretch of Vasco Road between Brentwood and Livermore, California. The stretch of road extends from engineering Station 363+00 in the north, south to Station 244+00 in the south, approximately 3 miles north of the Contra Costa County/Alameda County line. This stretch of rural, twisting road has heavy, fast moving traffic and a history of serious injury and fatality accidents. The project will construct a concrete median barrier, install road shoulders that meet current design standards, and connect two existing southbound truck passing lanes thereby eliminating merges. Associated drainage, retaining walls, signing, striping, turn pockets, guardrail adjustments, and barrier end-treatments will be constructed as necessary to accommodate the installation of the barrier and shoulder widening safety features. Two bridge widenings over Brushy Creek will be necessary to accommodate the barrier and wider shoulders. In addition, several features have been incorporated into the project design to accommodate wildlife movement across/under the road including directional fencing for the entire length of both sides of the roadway connecting to multiple large and small animal undercrossings, earthen jump outs (small earthen pads that allow wildlife that does become trapped on the roadway to exit the road corridor to adjacent habitat), and overhead grating to allow light into the culvert to further encourage use. Median barriers will incorporate scuppers and breaks following Caltrans standard designs to allow animals caught in the roadway to cross to the other side to the nearest jumpout. Barriers to cattle crossing will be included at culverts that are four feet in diameter or larger. In order to accommodate the wider road, the hillsides on the eastern portion of the road will be cut further and retaining walls installed in some locations to retain hillsides. Cut slopes will be excavated where right of way allows. The road will then be repaved and striped to accommodate the larger lanes and shoulders. Work will progress through all seasons, though not in adverse weather conditions. Road widening will primarily occur along the eastern side of Vasco Road, where much of the area is existing cut and fill from the original construction of the road. The project is being constructed in two phases, the first of which was completed in January of 2012.

This document serves as an **Addendum** to the Vasco Road Safety Improvement Project Mitigated Negative Declaration (CP# 09-55; SCH# 2009062094). The MND for the project consists of the original MND (dated June 18, 2009 and filed on August 26, 2009), and this Addendum.

The Contra Costa County Department of Conservation and Development (DCD) is the Lead Agency for the project, and on August 25, 2009, the Board of Supervisors (Board) approved the project and filed a Notice of Determination (NOD) with the County Clerk.

CEQA PROCESS

The California Environmental Quality Act (CEQA) stipulates that an Addendum (CEQA Guidelines Section 15164) to a previously adopted MND may be prepared if only minor technical changes are necessary and none of the conditions described in CEQA Guidelines Section 15162 have occurred:

1. No substantial changes are proposed in the project which will require major revisions of the previous MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. No substantial changes with respect to the circumstances under which the project is undertaken which require major revisions of MND due to the involvement of new significant effects or a substantial increase in the severity of previously identified significant effects; or
3. No new information of substantial importance shows that the project will have one or more significant effects not previously discussed in the MND.

In accordance with CEQA Guidelines Section 15164(d), the Board shall consider this **Addendum** along with the MND prior to making a decision on the project. According to CEQA Guidelines Section 15164(c) an Addendum does not require circulation for public review but can be included in or attached to the MND. As noted in the Preface, this **Addendum** is attached to the MND for the Vasco Road Safety Improvement Project (CP# 09-55, SCH# 2009062094).

PROJECT BACKGROUND

Construction of Phase I of the Vasco Road Safety Improvement Project (from Stations 304 in the north to 244 in the south) was completed in January of 2012. Phase II of the project (from Stations 363 in the north to 290 in the south) is scheduled to begin construction as early as summer of 2012 pending successful procurement of funding. The first phase of the project was logistically simpler to construct as one component of that phase involved connection of two existing truck climbing lanes into one longer truck climbing lane. This component of the project provided additional room for the contractor to work with limited

effect on traffic flow on the roadway. Phase II of the project does not involve connection of truck climbing lanes, therefore, there will be less room available for construction activities and impacts to traffic flow will occur (see Explanation of the Addendum below). The Phase II portion of the project is expected to take two construction seasons to complete.

EXPLANATION OF THE ADDENDUM

This **Addendum** to the MND for Vasco Road Safety Improvement Project identifies minor technical changes in the project design/construction.

DESIGN

The logistics associated with constructing the Vasco Road Safety Improvement Project (both design and construction) are complicated since this is a heavily traveled road, particularly during the weekday peak commute hours.

As a result of the complexity of the safety improvement project and the conditions present in the Phase II portion of the project, a minor technical change to the project analyzed by the Mitigated Negative Declaration filed on August 26, 2009 has been determined to be necessary during detailed project design. This minor technical change includes: implementation of a full road closure on a limited number of weekends on Phase II to allow for installation of multiple culvert crossings under the roadway, installation of a concrete median barrier, and placement of asphalt paving. Road closures are expected to occur over four weekends during the first construction season and over two weekends during the second construction season (as mentioned above, Phase II is expected to take two years to construct). This modification to the previously analyzed project is discussed below.

This **Addendum** is consistent with County policies and does not lead directly or indirectly to significant physical changes in the project, nor does it alter the adequacy or the completeness of the environmental impacts and mitigation measures identified in the MND. Therefore, this **Addendum** to the MND is appropriate.

ADDITIONS TO THE MND

This section identifies the language which is added and/or changed (**bold face type**) or deleted (~~strikeout~~) to the text and figures of the MND. The environmental impacts are discussed in "Environmental Initial Study: Vasco Road Safety Improvement Project, dated June 18, 2009 (attached) and filed on August 26, 2009. The changes below pertain to the document referenced above.

1. Full Road Closure and Detour Discussion in Project Description

Page 2, 5th Paragraph (Project Description): ~~Traffic flow will be maintained in both directions throughout construction.~~ **In order to allow for installation of road cross culverts, concrete median barrier, and asphalt paving in the narrow road corridor, full road closure will be required for approximately 6 weekends during the two-year construction period necessary to implement Phase II. Four weekend closures are expected during the first construction season and two weekend closures are expected the following construction season. Weekend closures will begin at 7:00 pm on Friday and end at 4:30 am on Monday. The weekend closures will not be allowed during the “u-pick” season which begins May 1 and ends July 10. Road closure and detour signage will be prominently displayed well in advance of the closure for the traveling public.**

2. Hazards and Hazardous Materials

Page 62, item g): ~~Construction of the proposed project will not require the closure of Vasco Road in the project area — traffic flow will be maintained in both directions throughout construction.~~ **The project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan as emergency vehicles and personnel necessary to implement an emergency response plan will be allowed unrestricted passage through the project area at all times, even during periods of road closures. Therefore, no significant hazards and hazardous materials impacts are expected due to the closures.**

3. Transportation and Traffic

Page 77, item a): ~~In order to minimize potential traffic impacts, traffic flows will be maintained in both directions throughout construction. During the weekday non-commute hours and weekends when work is actively in progress, the contractor will be allowed to reduce traffic to one lane to be used interchangeably for both directions of traffic with the use of flaggers and pilot cars. Any temporary one-lane closures will be infrequent and of short duration.~~ **In order to allow for installation of road cross culverts, median barrier, and asphalt paving in a very narrow construction corridor, full road closure will be required for approximately 6 weekends during the construction period. Four weekend closures are expected during the first construction season and two weekend closures are expected the following construction season. Weekend closures will begin at 7:00 pm on Friday and end at 4:30 am on Monday. The weekend closures will not be allowed during the “u-pick” season which begins May 1 and ends July 10. Weekend traffic volume is 20% of the normal weekday Vasco Average Daily Trips of 22,000 vehicles per day.**

The detour will be as follows:

Northbound Vasco Road traffic (Livermore to Brentwood)

Use eastbound I-580 toward Tracy ~ 9 miles
Merge into eastbound I-205 ~ 3 miles
Exit at Mountain House Parkway continue northbound ~ 3 miles
Turn left onto Byron Highway ~ 11 miles
Turn left onto Marsh Creek Road ~ 4 miles
Arrive at Intersection with Vasco Road/Highway 4 Bypass

Southbound Vasco Road traffic (Brentwood to Livermore)

From southbound Vasco Road/Highway 4 Bypass:

Turn left onto Marsh Creek Road ~ 4 miles
Turn right onto Byron Highway ~ 11 miles
Turn right onto Mountain House Parkway ~ 3 miles
Enter I-205 westbound ~ 3 miles
Merge with I-580 westbound ~ 9 miles
Exit onto Vasco Road

Allowing weekend closures reduces the total number of working days necessary to complete the project which will reduce the overall duration of impacts to the traveling public due to the project. A well-coordinated noticing program will ensure all those potentially impacted by the closures are informed well in advance of construction (e.g., message boards on freeways and local roads in both Alameda County and Contra Costa County, press releases to media outlets, notice to emergency services, well-marked detour routes coordinated with the various agencies). Because closures will be restricted to a limited number of weekends (6 weekends over two years), traffic volume on the weekends is substantially less than midweek volumes, closures will not be allowed during the “u-pick” season, and a well-coordinated noticing program will be implemented, no significant impacts due to the weekend closures are anticipated. All necessary encroachment permits will be obtained from affected agencies (e.g., Alameda County, City of Livermore).

The project will continue to be staged such that one lane in each direction will remain available to traffic during weekday commute hours (5:30 am to 8:30 am and 3:00 pm to 7:00 pm). During the weekday non-commute hours the contractor will continue to be allowed to reduce traffic to one lane to be used interchangeably for both directions of traffic with the use of flaggers and pilot cars. Any temporary one-lane closures occurring during the weekday non-commute hours will be infrequent and of short duration.

Figures section: Figure 3 identifies the proposed detour plan.

CONTRA COSTA COUNTY ADDENDUM FINDINGS for the
MITIGATED NEGATIVE DECLARATION for
VASCO ROAD SAFETY IMPROVEMENT PROJECT

The following information is added to the previous MND and is presented to comply with Section 15091 of the CEQA Guidelines for the MND for the Vasco Road Safety Improvement Project

1. **Environmental Effect:** Modifications to the design section as described in this Addendum are minor technical changes or additions to the project and will not result in any additional environmental effects not previously discussed.

Findings: There are no significant environmental impacts associated with the minor technical changes or additions for the proposed activity for which this **Addendum** was prepared.

Statement of Facts:

- a. The project to be developed pursuant to this **Addendum** to the MND for the Vasco Road Safety Improvement Project is substantially similar to the project analyzed in the MND.
- b. The MND for the Vasco Road Safety Improvement Project consists of the MND, comments received, responses to the comments raised, and this **Addendum**. The MND was completed in compliance with CEQA.
- c. There are no substantial changes, pursuant to CEQA Guidelines Section 15162 (a)(1), in the project that require major revisions of the MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The project is substantially similar to the project analyzed in the MND.
- d. There are no substantial changes with respect to the circumstances, pursuant to CEQA Guidelines Section 15162 (a)(2), under which the Vasco Road Safety Improvement Project is undertaken which require major revisions of the previous MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Those circumstances remain substantially similar to the circumstances analyzed in the MND.
- e. There is no new information of substantial importance, pursuant to CEQA Guidelines Section 15162 (a)(3), which shows that the project will have one or more significant effects not previously discussed in the MND.

f. None of the conditions calling for the preparation of a subsequent or supplemental EIR have occurred (see items 1 c - e above). Therefore, it is appropriate to adopt this **Addendum** to the MND to make the minor technical changes and additions discussed in this document (CEQA Guidelines 15164). This **Addendum** shall be considered along with the MND prior to the Board making a decision on the minor technical changes or additions to the project, and in considering these changes or additions, the Board is considering the identical or substantially similar underlying project.

The findings are supported by substantial evidence in the administrative record and are based on the MND for the Vasco Road Safety Improvement Project, which was subject to public review.

In accordance with CEQA Guidelines Section 15164(d), the County Board of Supervisors shall consider this **Addendum** along with the MND prior to making a decision on the project. According to CEQA Guidelines Section 15164(c) an Addendum does not require circulation for public review but can be included in or attached to the MND. As noted in the Preface, this **Addendum** is attached to the MND for the Vasco Road Safety Improvement Project (CP# 09-55; SCH# 2009062094).

**CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF DETERMINATION**

To:

☒ **Office of Planning and Research**

For U.S. Mail:

P.O. Box 3044

Sacramento, CA 95812-3044

Street Address:

1400 Tenth St., Rm 113

Sacramento, CA 95814

From:

Contra Costa County

Dept. of Conservation & Development

30 Muir Road

Martinez, CA 94553

☒

County Clerk

County of: Contra Costa

555 Escobar Street

Martinez, CA 94553

State Clearinghouse Number: 2009062094

Project Title: Vasco Road Safety Improvement Project, Project No.0662-6R4254/4255, CP#09-55

Project Applicant: Contra Costa County Public Works Department

Project Location (include County): The project is a roughly 2.5 mile stretch of Vasco Road that falls between Camino Diablo Road and the southern entrance to Los Vaqueros Reservoir, roughly three miles north of the Contra Costa-Alameda County Line, in Contra Costa County.

Project Description: The Vasco Road Safety Improvement Project consists of safety improvements to a 2.5 mile long stretch of Vasco Road extending from Engineering Station 363+00 in the north, south to Station 244+00 in the south. This stretch of rural, twisting road has heavy, fast moving traffic and a history of serious injury and fatality accidents. The project will construct a concrete median barrier, install road shoulders that meet current design standards, connect two existing southbound truck passing lanes and install associated drainage, retaining walls, signing, striping, turn pockets, guardrail adjustments, wildlife crossing features, barrier end-treatments and two bridge widenings. Cut slopes will be excavated where right of way allows. Work will progress through all seasons, though not in adverse weather conditions. Phase 1 of the project was completed in January of 2012. As a result of the narrower Phase 2 construction corridor, a minor technical change to the project analyzed by the Mitigated Negative Declaration file on August 29, 2009 is necessary. This minor technical change consists of implementation of a full road closure on a limited number of weekends during construction of Phase 2. Road closures are expected to occur over four weekends during the first construction season and over two weekends during the second construction season. Real Property transactions, including right-of-way acquisition may be necessary in support of this project.

The project was approved on: August 25, 2009

1. The project ☐ will ☒ will not have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☒ A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures ☒ were ☐ were not made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan ☒ was ☐ was not adopted for this project.
5. A statement of Overriding Considerations ☐ was ☐ was not adopted for this project.
6. Findings ☒ were ☐ were not made pursuant to the provisions of CEQA.

Notice of Determination sent to Office of Planning and Research.*

This is to certify that the final EIR with comments and responses and record of project approval, or the Negative Declaration, is available to the General Public at:

Contra Costa County Public Works Department
255 Glacier Drive, Martinez, CA 94553

Signature (Contra Costa County): _____ Title: _____

Date: _____ Date Received for filing at OPR: _____

AFFIDAVIT OF FILING AND POSTING

I declare that on _____ I received and posted this notice as required by California Public Resources Code Section 21152(c). Said notice will remain posted for 30 days from the filing date.

Signature _____ Title: _____

Applicant: Contra Costa County Public Works Department 255 Glacier Drive, Martinez, CA 94553 Attn: Leigh Chavez Environmental Section Phone: (925) 313-2366	Department of Fish and Game Fees Due ☐ EIR - \$2,919.00 ☐ Neg. Dec. - \$2,101.50 ☐ DeMinimis Findings - \$0 ☒ County Clerk - \$50 ☒ Dept. of Conservation & Development (DCD)-\$25	Total Due: \$ _____ Total Paid \$ _____ Receipt #: _____
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*Notice Of Determination may be sent by fax to (916) 323-3018, if followed up with a duplicate mailed copy.

**CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF DETERMINATION**

To:

☒ **Office of Planning and Research**

For U.S. Mail:

P.O. Box 3044

Sacramento, CA 95812-3044

Street Address:

1400 Tenth St., Rm 113

Sacramento, CA 95814

From:

Contra Costa County

Dept. of Conservation & Development

30 Muir Road

Martinez, CA 94553

☒

County Clerk

County of: Contra Costa

555 Escobar Street

Martinez, CA 94553

State Clearinghouse Number: 2009062094

Project Title: Vasco Road Safety Improvement Project, Project No.0662-6R4254/4255, CP#09-55

Project Applicant: Contra Costa County Public Works Department

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The project was approved on: August 25, 2009

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2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☒ A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures ☒ were ☐ were not made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan ☒ was ☐ was not adopted for this project.
5. A statement of Overriding Considerations ☐ was ☐ was not adopted for this project.
6. Findings ☒ were ☐ were not made pursuant to the provisions of CEQA.

Notice of Determination sent to Office of Planning and Research.*

This is to certify that the final EIR with comments and responses and record of project approval, or the Negative Declaration, is available to the General Public at:

Contra Costa County Public Works Department
255 Glacier Drive, Martinez, CA 94553

Signature (Contra Costa County): _____ Title: _____

Date: _____ Date Received for filing at OPR: _____

AFFIDAVIT OF FILING AND POSTING

I declare that on _____ I received and posted this notice as required by California Public Resources Code Section 21152(c). Said notice will remain posted for 30 days from the filing date.

Signature _____ Title: _____

Applicant: Contra Costa County Public Works Department 255 Glacier Drive, Martinez, CA 94553 Attn: Leigh Chavez Environmental Section Phone: (925) 313-2366	Department of Fish and Game Fees Due ☐ EIR - \$2,919.00 ☐ Neg. Dec. - \$2,101.50 ☐ DeMinimis Findings - \$0 ☒ County Clerk - \$50 ☒ Dept. of Conservation & Development (DCD)-\$25	Total Due: \$ _____ Total Paid \$ _____ Receipt #: _____
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*Notice Of Determination may be sent by fax to (916) 323-3018, if followed up with a duplicate mailed copy.

**CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF DETERMINATION**

CONTRA COSTA COUNTY DEPARTMENT OF CONSERVATION AND DEVELOPMENT
651 PINE STREET 4TH FLOOR NORTH WING MARTINEZ, CALIFORNIA 94553-0095

Telephone: (925) 313-2366 Contact Person: Leigh Chavez, Environmental Analyst

Project Title: Vasco Road Safety Improvement Project **Project No.** 0662-6R4254/CP# 09-55

Project Location: The Project is a roughly 2.5 mile stretch of Vasco Road that falls between Camino Diablo Road and the southern entrance to Los Vaqueros Reservoir, roughly 3 miles north of the Contra Costa-Alameda County Line

Project Description: The Vasco Road Safety Improvement Project has been proposed by Contra Costa County to improve the safety of a two-plus mile stretch of Vasco Road between Brentwood and Livermore, California. The stretch of road is approximately 3 miles north of the Contra Costa County/Alameda County line. This stretch of rural, twisting road has heavy, fast-moving traffic, and a history of serious injury accidents. This project will construct a concrete median barrier along Vasco Road. The existing 2-lane segment will require additional pavement to connect the two existing southbound passing lanes eliminating two merges. A break in the median barrier will occur to accommodate turning movements and access to the East Bay Regional Park District's facilities. There will be no increase in capacity as a result of the project. Associated drainage, retaining walls, signing, striping, turn pockets, guardrail adjustments, and barrier end-treatments will be constructed as necessary to accommodate the installation of these improvements. Two bridge widenings over Brushy Creek will be required. The project will generate more than 97,000 cubic yards of excavated material (soil and road material). If negotiations with adjoining property owners are successful, acquisition of up to four adjacent spoils disposal sites may be utilized. If negotiations are unsuccessful, spoils will be hauled off-site. Spoils placement will be made under the guidance of a Geotechnical Engineer to avoid erosion, or instability and will be placed such that existing drainage patterns are not affected. Currently there is expected to be funding for approximately 1 mile of the full 2.5 mile section. Construction of the first phase of the project (the 1 mile section) is scheduled to begin in 2010 and end in 2011. Work will progress through all seasons, though not in adverse weather conditions. Traffic flow will be maintained in both directions throughout construction. The project will be staged such one lane in each direction will remain available to traffic during weekday commute hours (5:30 am to 8:30 am and 3:00 pm to 7:00 pm). Traffic lanes will be shifted as necessary to construct the project in stages. Night work may occur in order to minimize traffic congestion resulting from the project. Real Property transactions including rights of entry, temporary construction easements, slope easements, and permanent fee title property acquisition may be necessary in support of the project.

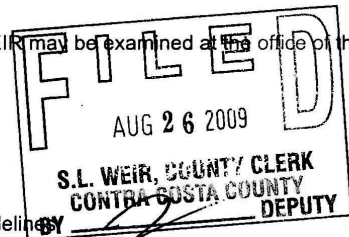
The project was approved on August 25, 2009

Pursuant to the provisions of the California Environmental Quality Act:

- ☐ An Environmental Impact Report was prepared and certified (SCH # _____)
☐ The Project was encompassed by an Environmental Impact Report previously prepared for _____ (SCH# _____).
☒ A Mitigated Negative Declaration has been prepared.

Copies of the record of project approval and the Negative Declaration or the final EIR may be examined at the office of the Contra Costa County Public Works Department.

- ☐ The Project will not have a significant environmental effect.
☐ The Project will have a significant environmental effect.
☒ Mitigation measures were made a condition of approval of the project.
☒ A mitigation reporting or monitoring plan was adopted for this project.
☐ A statement of Overriding Considerations was adopted.
☐ Findings were adopted pursuant to Section 15091 of the State CEQA Guidelines.



Date: June 18, 2009

By: Mauricio Jones
Conservation and Development Department Representative

AFFIDAVIT OF FILING AND POSTING

I declare that on 8/25/09 I received and posted this notice as required by California Public Resources Code Section 21152(c). Said notice will remain posted for 30 days from the filing date.

[Signature]
Signature

DEPUTY COUNTY CLERK
Title

Applicant:

Public Works Department
255 Glacier Drive
Martinez, CA 94553

Attn: Leigh Chavez
Environmental Section

G:\EngSvc\ENVIRO\TransEng\Vasco Road Safety Median 2006\CEQA\Final CEQA\NOD

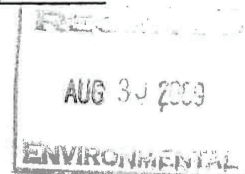
Department of Fish and Game Fees Due

- ☐ EIR - \$2,768.25
☒ Neg. Dec. - \$1,993.00
☐ DeMinimis Findings - \$0
☒ County Clerk - \$50
☒ Community Development Dept. - \$25

Total Due: \$ _____

Total Paid \$ _____

Receipt #: _____





2009 ENVIRONMENTAL FILING FEE CASH RECEIPT

RECEIPT#

379560

STATE CLEARING HOUSE # (if applicable)

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY

LEAD AGENCY CCC Dept of Conservation & Development		DATE 8/26/2009
COUNTY/STATE AGENCY OF FILING CCC County Clerk		DOCUMENT NUMBER 08-607
PROJECT TITLE UASCO Road Safety Improvement Project		
PROJECT APPLICANT NAME CCC County Dept of Conservation & Development		PHONE NUMBER (261) 313-2311
PROJECT APPLICANT ADDRESS 651 Ave 17 E Plon	CITY Martinez	STATE CA
		ZIP CODE 94553

PROJECT APPLICANT (Check appropriate box):

☒ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report	\$2,768.25	\$	
☒ Negative Declaration	\$1,993.00	\$	1883
☐ Application Fee Water Diversion (State Water Resources Control Board Only)	\$850.00	\$	
☐ Projects Subject to Certified Regulatory Programs	\$941.25	\$	
☒ County Administrative Fee	\$50.00	\$	50
☐ Project that is exempt from fees			
☐ Notice of Exemption			
☐ DFG No. Effect Determination (Form Attached)			
☐ Other		\$	

PAYMENT METHOD:

☐ Cash ☐ Credit ☐ Check ☒ Other JV # 0545

TOTAL RECEIVED \$ 2088

SIGNATURE

X

TITLE

DEPUTY COUNTY CLERK

WHITE - PROJECT APPLICANT

YELLOW - DFG/ASB

PINK - LEAD AGENCY

GOLDEN ROD - COUNTY CLERK

FG 753.5a (Rev. 7/08)

**Contra
Costa
County**

**PUBLIC WORKS DEPARTMENT
INITIAL STUDY OF
ENVIRONMENTAL SIGNIFICANCE**

PROJECT # 0662-6R4254
CP# 09-55

PROJECT NAME: Vasco Road Safety Improvement Project

PREPARED BY: Leigh Chavez

DATE: June 11, 2009

APPROVED BY: *Maurank Jones*

DATE: *June 18, 2009*

RECOMMENDATIONS:

☐ Covered under an existing CEQA document

☐ Negative Declaration

☐ Environmental Impact Report Required

☒ Mitigated Negative Declaration

The project will not have a significant effect on the environment. The recommendation is based on the following: There is no substantial evidence that the project or any of its aspects may cause a significant effect on the environment (Sec.15063 (b) (2)).

What changes to the project would mitigate the identified impacts: N/A

USGS Quad Sheet: Byron Hot
Springs

Base Map Sheet #: T26,
T27, U26

Parcel #: N/A

GENERAL CONSIDERATIONS:

- 1. Location:** (Figures 1, 2) The project is a roughly 2.5 mile stretch of Vasco Road that falls between Camino Diablo Road and the southern entrance to Los Vaqueros Reservoir, roughly 3 miles north of the Contra Costa-Alameda County Line in eastern Contra Costa County
- 2. Project Description:** The Contra Costa County Public Works Department (CCCPWD) is proposing to improve the safety of a two-plus mile stretch of Vasco Road between Brentwood and Livermore, California. The stretch of road being considered for improvements runs from engineering Station 363+00 in the north, south to Station 244+00, approximately 3 miles north of the Contra Costa County/Alameda County line. This stretch of rural, twisting road has heavy, fast-moving traffic, and a history of serious injury accidents.

This project will construct a concrete median barrier along Vasco Road. The existing 2-lane segment from approximate Station 244+00 to 290+00 will require additional pavement to connect the two existing southbound passing lanes eliminating two merges. A break in the median barrier will occur between stations 270+00 to 279+00 (900 feet) to accommodate turning movements and access to the East Bay Regional Park District's facilities. There will be no increase in capacity as a result of the project. Associated drainage, retaining walls, signing, striping, turn pockets, guardrail adjustments, and barrier end-treatments will be constructed as necessary to accommodate the installation of these improvements. Two bridge widenings over Brushy Creek will be required.

The project will require retaining structures located above and below the road at various locations between stations 254 and 311 varying in height up to 28 feet. There will be no walls north of station 311. If negotiations with adjoining property owners are successful, instead of installing retaining structures between stations 254 and 263, the slopes will be laid back.

The project will generate more than 97,000 cubic yards of excavated material (soil and road material). If negotiations with adjoining property owners are successful, acquisition of up to four adjacent spoils disposal sites may be utilized. The disposal sites are approximately east of station 252+00, and west of stations 305+00, 314+00 and 322+00. If negotiations are unsuccessful, spoils will be hauled off-site. Spoils

placement will be made under the guidance of a Geotechnical Engineer to avoid erosion, or instability and will be placed such that existing drainage patterns are not affected.

C.3 compliance to treat and control runoff from increased impervious surface will be achieved by erosion control devices, longitudinal "flow through planters" (18" wide, 24" deep trenches backfilled with permeable material and perforated pipe, soil topping and planting of grasses), and other devices as outlined in the County's *Stormwater C.3 Guidebook*.

The bridge widening will be adding 34 feet and 24 feet of box girder bridge to the existing bridges (bridge numbers 1 and 2 respectively) over Brushy Creek. This work will entail dewatering the creek to allow the construction of abutments (including pile driving and wingwalls) and installation of falsework to aid in the construction. The extended bridges will fre-span the creek channel.

Pavement widening up to 35 feet is also necessary to accommodate the installation of the barrier and to accommodate stopping sight distance around some curves in accordance with Caltrans design standards.

Approximately 10,000 linear feet of drainage pipe (RCP or plastic) will be installed ranging in size from 18" to 48". In some cases the pipe creates new systems as well as lengthens existing systems to accommodate the widening. Rock lined longitudinal drainage ditches and concrete v-ditches will be installed at various locations along the project.

Several features have been incorporated into the project description to accommodate wildlife movement across/under the road. Fencing for wildlife will be installed along the entire length of both sides of the roadway. Fencing will connect to each existing and new undercrossing. Earthen "jump outs" (small earthen pads that allow wildlife that does become trapped on the roadway to exit the road corridor to adjacent habitat) will be installed on both sides of the road abutting the wildlife fencing. Jump-outs for small wildlife will be spaced approximately every 300 feet, and for large wildlife every 1000 feet, except where retaining walls or other physical barriers preclude the ability to do so. Up to six 5 foot square undercrossings and seventeen 20 to 24 inch diameter undercrossings will be installed. Spacing and sizing will be dependent on distance from existing crossings and constructability, but small undercrossing are intended to be spaced roughly every 600 feet and large crossing roughly every 1,640 feet. All new small wildlife crossings will include overhead grating in the median and on both shoulders where safety is not an issue. Median barriers will incorporate scuppers and breaks following Caltrans standard designs. Scuppers will be incorporated every 300 feet where they do not create a safety hazard by allowing drainage to stream across the travel way. Breaks in the median will occur on tangent sections of the roadway every 1000 feet in a like manner. Barriers to cattle crossing will be included at culverts that are four feet in diameter or larger.

Currently there is expected to be funding for approximately 1.0 mile of the full 2.5 mile section. Construction of the first phase of the project (the 1.0 mile section) is scheduled to begin in 2010 and end in 2011. Work will progress through all seasons, though not in adverse weather conditions. Road expansion will primarily occur along the eastern side of Vasco Road, where much of the area is existing cut and fill from the original construction of the road. In order to expand the road, the hillsides on the eastern portion of the road will be cut further and retaining walls installed to retain hillsides. Cut slopes will be excavated where right of way allows. Sections of existing fill will be expanded with retaining walls extending from the road base down to the fill layers. The road will then be repaved and striped to accommodate the wider lanes and shoulders.

Traffic flow will be maintained in both directions throughout construction. The project will be staged such that one lane in each direction will remain available to traffic during weekday commute hours (5:30 am to 8:30 am and 3:00 pm to 7:00 pm). Traffic lanes will be shifted as necessary to construct the project in stages. Night work may occur in order to minimize traffic congestion resulting from the project.

Real Property transactions including rights of entry, temporary construction easements, slope easements, and permanent fee title property acquisition may be necessary in support of the project.

3. Does it appear that any feature of the project will generate significant public concern?

☐ yes ☒ no ☐ maybe (Nature of concern): _____

4. Will the project require approval or permits by other than a County agency?

☒ yes ☐ no (Department of Fish and Game, Army Corps of Engineers, Regional Water Quality Control Board, East Contra Costa County HCP/NCCP)

5. Is the project within the Sphere of Influence of any city? No.

**Initial Study/
Mitigated Negative Declaration**

For the

**Vasco Road
Safety Improvement Project**

California Environmental Quality Act (CEQA) Lead Agency
Contra Costa County Department of Conservation and Development
651 Pine Street
Martinez, CA 94553-4897

June 2009

- 1. Project Title:**
Vasco Road Safety Improvement Project
- 2. Lead agency name and address:**
Contra Costa County Department of Conservation and Development
651 Pine Street
North Wing, Fourth Floor
Martinez, CA 94553-1229
- 3. Contact person and phone number:**
Leigh Chavez, Environmental Analyst III
Contra Costa County Public Works Department
925-313-2366
- 4. Project location:**
The Project is a roughly 2.5 mile stretch of Vasco Road that falls between Camino Diablo Road and the southern entrance to Los Vaqueros Reservoir, roughly 3 miles north of the Contra Costa-Alameda County Line in eastern Contra Costa County, CA (Figure 1, 2).
- 5. Project sponsor's name and address:**
Contra Costa County Public Works Department
255 Glacier Drive
Martinez, CA 94553-4897
- 6. General Plan designation:**
Public and Semi-public (Contra Costa County 2009).
- 7. Zoning:**
Expressway; Vasco Road does not have a designated zone (Contra Costa County 2009).
- 8. Description of project:**
The Project is described in Section 1.
- 9. Surrounding land uses and setting:**
Land surrounding the Project consists of flat to rolling, hilly topography dominated by grasslands. The immediate project area has been subject to extensive landform modification, including extensive cut and fill for the construction of Vasco Road in 1995 and 1996. Land uses adjacent to the project consist primarily of undeveloped grazing land, watershed lands, and wind energy production.
- 10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**
Required permits or approvals are listed in Section 1.

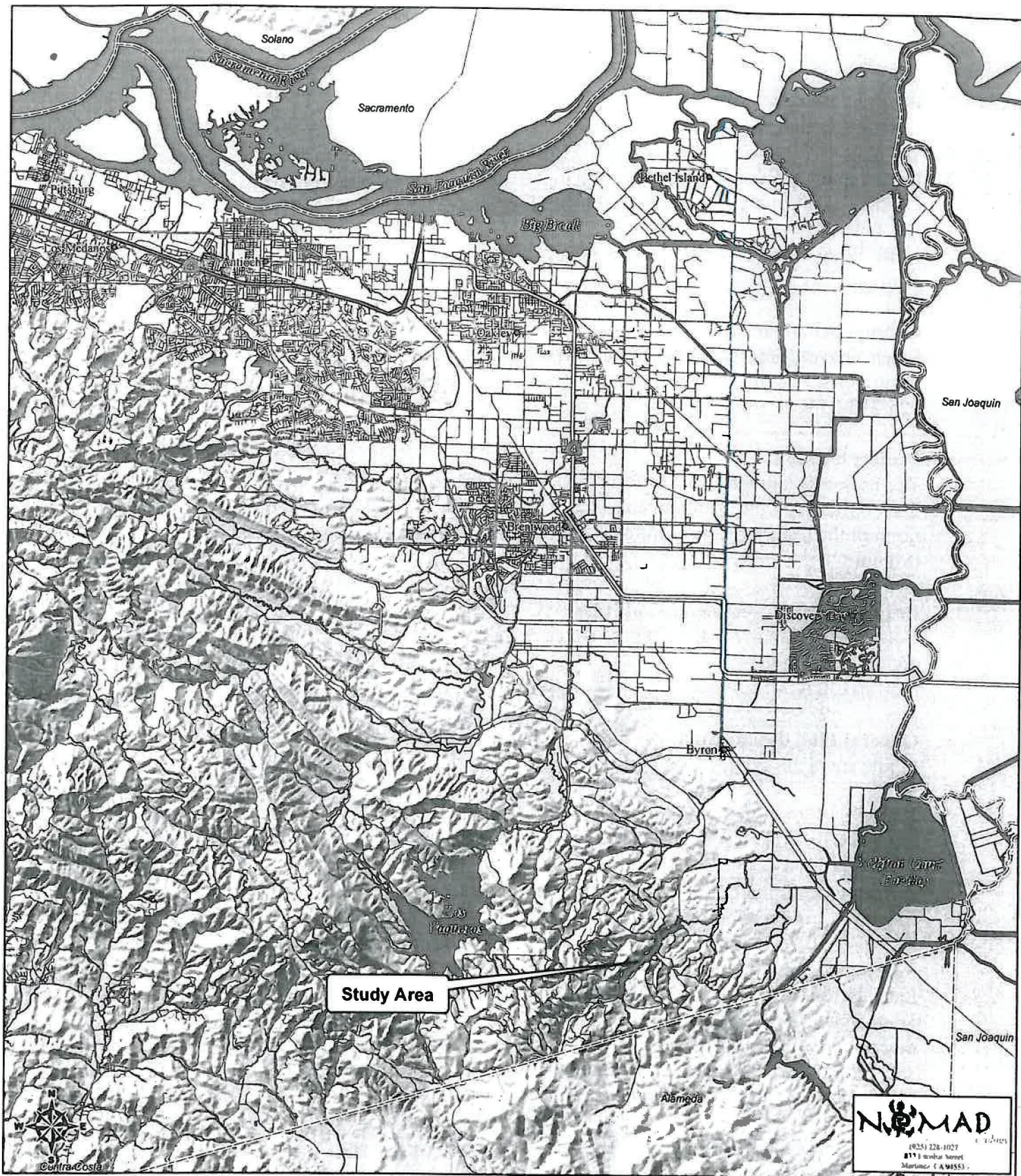


Figure 1

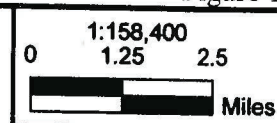
Legend

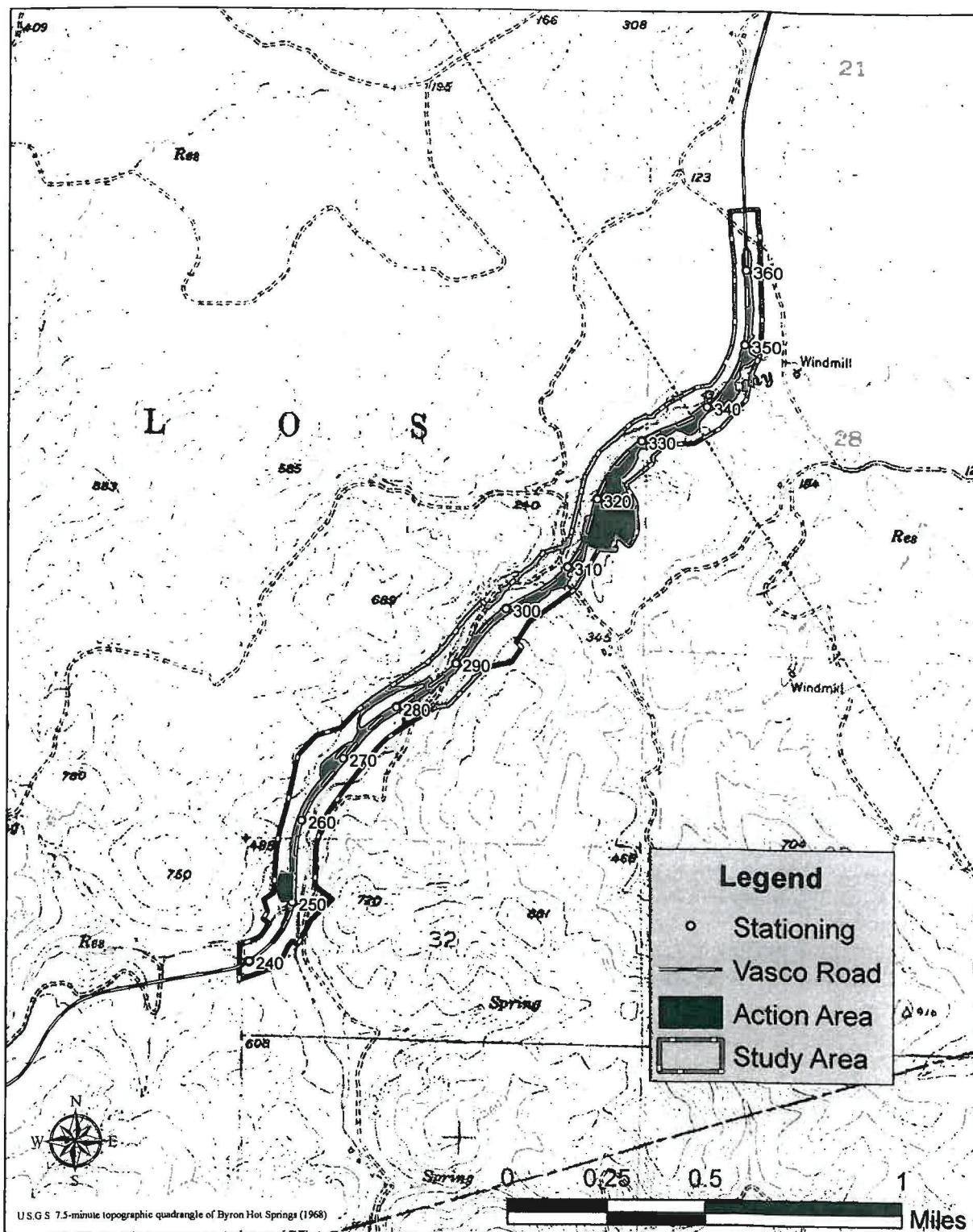
Study Area



CONDOR COUNTRY
CONSULTING, INC.

Project Location Map
Vasco Road Safety Improvement Project





 CONDOR COUNTRY CONSULTING, INC.	Vasco Road Safety Improvement Project Study Area	Figure 2
---	--	------------------------

S:\Projects\00088-Vasco Median\GIS\MXD\Study_Area_Final.mxd

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

This Initial Study has determined that the project requires mitigation for impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than-significant levels.

☐ Aesthetics	☐ Land Use and Planning
☐ Agricultural Resources	☐ Mineral Resources
☐ Air Quality	☐ Noise
☒ Biological Resources	☐ Population and Housing
☒ Cultural Resources	☐ Public Services
☐ Geology and Soils	☐ Recreation
☐ Hazards and Hazardous Materials	☐ Transportation/Traffic
☐ Hydrology and Water Quality	☐ Utilities and Service Systems
☐ None Identified	☐ Mandatory Findings of Significance

INITIAL STUDY DETERMINATION:

On the basis of this initial evaluation:

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

☒ I find that although the project could have a significant impact on the environment, there will not be a significant impact in this case because the project-specific mitigation measures described in Section 4 have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

Contra Costa County Department of Conservation and Development

Maureen Jones
Signature

June 18, 2009
Date

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APPENDIX A MITIGATION AND MONITORING REPORT PLAN

1. PROJECT DESCRIPTION

The Vasco Road Safety Improvement Project has been proposed by Contra Costa County to improve the safety of a two-plus mile stretch of Vasco Road between Brentwood and Livermore, California. The stretch of road being considered for improvements runs from engineering Station 363+00 in the north, south to Station 244+00, approximately 3 miles north of the Contra Costa County/Alameda County line. This stretch of rural, twisting road has heavy, fast-moving traffic, and a history of serious injury accidents.

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Real Property transactions including rights of entry, temporary construction easements, slope easements, and permanent fee title property acquisition may be necessary in support of the project.

Permits and Regulatory Approvals

Approving Agency	Required Permit/Approval	Required For
Federal Agencies		
U.S. Army Corps of Engineers	Nationwide Section 404 Discharge Permit. (Clean Water Act, 33 USC 1341)	Discharge of dredge/fill material into "Waters of the United States," including wetlands.
State Agencies		
State Water Resources Control Board, Regional Water Quality Control Board	General Construction Activity Storm Water Permit. Notice of Intent. (40 CFR Part 122)	Storm water discharges associated with construction activity.
	National Pollutant Discharge Elimination System Permit. (Clean Water Act, 33 USC 1251 <i>et seq.</i>)	For storm water discharges associated with construction activity, unless covered by individual NPDES permit.
	Section 401 Water Quality Certification (Clean Water Act), if project requires Army Corps of Engineers 404 permit.	Discharge into "Waters of the U.S.," including wetlands (see Army Corps of Engineers Section 404 Permit above).
Department of Fish and Game	Lake/Streambed Alteration Agreement. (Fish and Game Code 1600)	Change in natural state of river, stream, lake (includes road or land construction across a natural streambed) which affects fish or wildlife resource.
Local Agencies		
CCCPWD	Incidental Take Permit under the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan	Potential impacts to biological resources.

2. INITIAL STUDY CHECKLIST AND SUPPORTING DOCUMENTATION

The Initial Study Checklist evaluates the significance of potential project impacts. Where appropriate, mitigation measures are proposed to reduce potentially significant impacts to less than significant impacts. The evaluation of the project in the Initial Study Checklist is based on observation of existing site conditions in the project area, review of relevant literature, and the results of supporting focused studies.

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Environmental Setting

The project area generally consists of flat to rolling, hilly topography dominated by grasslands and ranging in elevation from approximately 45 to 152 meters (150 to 500 feet). The study area and its surroundings are active ranchland (cattle grazing), protected watershed (Contra Costa Water District), regional park property (East Bay Regional Park District), and privately-owned property, some with wind energy farms. The immediate project area has been subjected to extensive landform modification, including extensive cut and fill for the construction of Vasco Road in 1995 and 1996. Brushy Creek and an unnamed tributary meander through much of the study area, with Brushy Creek crossing under Vasco Road in two locations. The primary view on either side of Vasco Road consists of rolling grassland-covered hills with cattle grazing and wind energy production uses. There are numerous massive, white, energy-generating wind turbines (windmills) that dot much of the adjacent landscape. With the exception of annual grassland vegetation, there is very limited vegetation on-site, and almost no tree cover - even in the areas immediately lining Brushy Creek.

Potential Environmental Effects

a) *Would the project have a substantial adverse effect on a scenic vista?*

The median barrier will be located in the middle of the roadway and will not block views of the surrounding hillsides. The proposed concrete retaining walls will be located in already existing graded slopes and below the road and will receive an architectural treatment (vertical ribbing) that is intended to provide textural interest to the otherwise sheer concrete face of the walls. The ribbed texture will also serve as a deterrent to vandalism (i.e., graffiti). Although some of the walls will be as tall as 28 feet, they will vary in height starting at 2' and will follow the grade and topography of the surrounding hills that they retain. The wildlife fencing and associated wildlife jump-outs that will be installed will follow the road alignment and will not block views of the adjacent hillsides. Given that the roadway in this location falls within an area of relatively steep topography, hillsides above the new retaining walls will continue to be visible and will continue to be the dominant view from the roadway. Although the Vasco Caves, a large district of historic rock wall features, caves, rock shelters, and some of the most significant prehistoric rock art in California, is located approximately 2100 feet from the project study area, there is a large hillside that separates the project from the caves. Therefore, none of the safety improvements that will be constructed with the project will be visible from the caves, nor will the project block any views of the surrounding rock outcroppings. The project will have a less than significant impact on scenic vistas.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The County General Plan (2005) identifies Vasco Road as a locally-designated Scenic Highway/Expressway; however, it is not designated as a state scenic highway (Caltrans 2008). While there are some small, sparsely spaced rock outcroppings in the vicinity of the project, they will not be impacted by the construction activities since the retaining walls will be installed largely in areas that already underwent substantial cut and fill activities during the original realignment of Vasco Road. No historic buildings occur within or adjacent to the project area. Construction impacts will be highly localized around the existing roadway. The area surrounding the roadway consists almost entirely of ruderal (weedy) land cover immediately adjacent to the existing roadway and rolling non-native grassland beyond the roadway. There are no large trees within the project area. Construction activities are expected to impact only one small willow tree that is located within the Brushy Creek channel at the southern crossing of Vasco Road. The project will have a less than significant impact on scenic resources.

c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

The project is located in a rural and agricultural landscape area; the primary view on either side of Vasco Road consists of rolling grassland-covered hills with cattle grazing and

wind energy production uses. There are numerous large, white windmills that dot the adjacent landscape. The purpose of the project is to improve safety along an existing roadway via the installation of a median barrier. Many of the project components (e.g., roadway widening, shoulder improvements, bridge work) will not change the visual character of the project in a noticeable way. In order to accommodate the improvements, the project will require installation of several retaining walls ranging in height from 2 to 28 feet. In order to ensure visual consistency, all retaining walls will have the same architectural treatment – a simple ribbed treatment that will provide textural interest to the walls while discouraging vandalism in the form of graffiti. The wildlife fencing that will be installed will follow the road alignment and will not block views of the adjacent hillsides. The fencing has been designed to fulfill its purpose while minimizing visual impact to roadway travelers. The fencing is expected to improve the migration success of wildlife without changing the visual character of the area as the fencing will be no more than five feet tall, will be constructed of visually benign materials (chain link fencing, PVC that is brown or gray in color) and will follow the existing alignment of the roadway. Similarly the wildlife jump-outs are earthen pads that will be sized as small as possible to facilitate use by their target species.

Although the Vasco Caves, a large district of historic rock wall features, caves, rock shelters, and some of the most significant prehistoric rock art in California, is located approximately 2100 feet from the project study area, there is a large hillside that separates the project from the caves. Therefore, none of the safety improvements that will be constructed with the project will be visible from the caves.

Vasco Road is primarily a commuter road between Contra Costa County and Alameda County. Traffic travels at high speeds along this road and therefore, the proposed retaining walls will be driven past rapidly and will not result in a high level of change to the visual character observed by commuters and the traveling public. All guardrails and signage will be consistent with what is currently visible on-site. All impacted slopes above the newly placed retaining walls, all cut slopes, and all spoils sites will be vegetated with a native grass mix that will be consistent with the visual nature of the existing grasslands. The seed mix will also contain several species of native wildflowers. Similarly, slopes that will be graded rather than receiving a retaining wall treatment will be re-vegetated with a native grass and wildflower mix to blend into and enhance the existing vegetation in the area. Given the consistent textural treatment of all the retaining walls and the location of the fencing as close as possible to the roadway, the project will have a less than significant impact on the existing visual character of the site and its surroundings.

- d) *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

The project includes the installation of retaining walls ranging in height up to 28 feet. In addition, wildlife fencing will be installed along the roadway for the entire limit of the project. The retaining walls will be finished with a ribbed-textural finish that will reduce

the glare that could otherwise be generated by the concrete walls. The wildlife fencing will consist of 5 foot tall chain link fencing with 2 feet of associated wire mesh and/or flashing at the bottom of the fence and UV resistant PVC lining the top of the fence. Contract specifications will require the use of either brown or gray PVC (rather than white). This choice of PVC will specifically reduce the reflectivity of the product. The project will not create a new source of substantial light or glare; this impact is less than significant.

II. AGRICULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion?	☐	☐	☐	☒

Environmental Setting

Land adjacent to Vasco Road is designated as Grazing Land and Farmland of Local Importance (California Department of Conservation 2008); however, the roadway alignment falls outside the Important Agricultural Lands designated area by the Contra Costa County General Plan. The Conservation Element of the Contra Costa County General Plan guides development activities in agricultural areas of the County (Contra Costa County 2005).

Potential Environmental Effects

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

Prime Farmland, Unique Farmland, or Farmland of Statewide Importance do not occur within or immediately adjacent to project area (California Department of Conservation 2008). While the existing road right of way width varies throughout the 2.5 mile alignment, the roadway improvements will be highly localized around the existing roadway; therefore, a negligible amount of grazing land and farmland of local importance will be converted to road right of way. This conversion is a less than significant impact.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No parcels under Williamson Act Land Conservation Contract adjoin the project area (Contra Costa County 2007). While much of the surrounding lands have active cattle grazing, the project will have a negligible impact on these properties. This impact is less than significant.

- c) *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

The project will not involve other changes in the existing environment that will result in conversion of farmland to a non-agricultural use. No impact would occur.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Environmental Setting

The project is located in eastern Contra Costa County, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD encompasses the nine San Francisco Bay Counties including, San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Napa, Marin, Southern Sonoma and Southwest Solano County. The BAAQMD occupies a total area of 5,600 square miles with 6.5 million people and 4.5 million cars and light trucks. The San Francisco Bay Area is a large shallow basin surrounded by hills that taper into a series of valleys.

Potential Environmental Effects

- a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The BAAQMD is in a federal non-attainment area for ozone (BAAQMD 2009). For the project to meet a conformity determination, it must be included in a federal approved Regional Transportation Plan. The project is included in the Bay Area Metropolitan Transportation Plan 2030 (Metropolitan Transportation Commission 2005). Therefore it meets the conformity requirements. No impact will occur.

- b) *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

None of the project components will lead to an increase in the capacity of Vasco Road, therefore, the project will not generate any new vehicle trips. Short-term emissions and objectionable odors may be generated during construction; however, they will be minor and temporary. In order to minimize impacts due to construction activities, contract specifications will stipulate the use of properly tuned and muffled equipment and the elimination of unnecessary idling of equipment when not in use. Implementation of dust control practices including general watering of exposed areas and/or use of chemical stabilizers will also minimize air quality impacts. Therefore, the project will have a less than significant impact on air quality.

Global Climate Change: Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time (Office of Planning and Research [OPR] 2008). There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the earth's surface warm by trapping heat in the atmosphere. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land (OPR 2008). GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively (LSA 2009). The major GHGs that are released from human activity include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) (OPR 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies).

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, recognized that California is the source of substantial amounts of GHG emissions which poses a serious threat to the economic well-being, public health, natural resources, and the environment of California (OPR 2008). Potential adverse impacts of global warming include severe air quality problems, a reduction in the quality and supply of water from the Sierra snowpack, a rise in sea levels causing the displacement of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems (Health and Safety Code, section 38501) (OPR 2008). Other potential threats include increased heat and ozone days, forest fires, and droughts (LSA 2009). In order to avoid these consequences, AB 32 established a state goal of reducing GHG emissions to 1990 levels by the year 2020 (a reduction of approximately 25 percent from forecast emission levels) with further reductions to follow.

CEQA requires public agencies to identify the potentially significant effects on the environment of projects they intend to carry out or approve, and to mitigate significant impacts whenever it is feasible to do so. While AB 32 did not amend CEQA to require new analytic processes to account for the environmental impacts, it does acknowledge that such emissions cause significant adverse impacts to human health and the environment

(OPR 2008). Senate Bill 97 (SB 97), enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It further directs OPR to develop draft CEQA Guidelines “for the mitigation of GHG emissions” by July 1, 2009 and directs the OPR to certify and adopt the CEQA Guidelines by January 1, 2010 (OPR 2008). On April 13, 2009, the OPR submitted the draft CEQA Guidelines to the Secretary for Natural Resources; the draft guidelines would direct that lead agencies make a good-faith effort, based on available information, to calculate, model, or estimate the amount of GHG emissions from a project through available and appropriate modeling tools; determine significance, and mitigate impacts (OPR 2008). The CEQA Guidelines do not prescribe thresholds of significance or particular methodologies for performing an impact analysis; it is left to the lead public agency to determine based on available and applicable factual data and guidance from regulatory agencies (OPR 2008).

The project is located within the BAAQMD, which has not established a recommended approach for evaluating GHG emissions or air pollutants from the construction of roadway projects. The Sacramento Metropolitan Air Quality Management District (SMAQMD) has developed the Road Construction Emissions Model, which quantifies roadway construction project air emissions over the entire construction period (LSA 2009). The methodology used to estimate GHG emissions is based on estimated construction operations by vehicle type and equipment emission factors developed by the CARB (LSA 2009). Based on the results of the model, it is estimated that the total project construction emissions would be approximately 602 metric tons of CO₂ (LSA 2009).

In an attempt to evaluate the level of significance of potential impacts from this project, recent publications and proposed action strategies from CARB addressing how the state plans to achieve GHG emission reduction goals state-wide were reviewed to determine if this project would conflict with the state goals. Early action strategies identified by CARB include those that are expected to yield significant GHG emission reductions and are likely to be cost-effective and technologically feasible such as implementing low carbon fuel standards, restrictions on high global warming potential refrigerants, and landfill methane capture. The project does not conflict with any of the action items applicable to the transportation sector as the project would not increase vehicle trips or vehicle miles traveled (LSA 2009). Further, while the Contra Costa County General Plan (2005) does not include policies that specifically address global climate change, it is consistent with the policies and goals that would reduce GHG emissions such as providing a safe, efficient and balanced transportation system, designing and allowing on-road bikeways on arterials and collectors in accordance to the County Bikeway Network Plan, and designing a roadway that allows for free flow of vehicular traffic on major arterials.

Given that the proposed project will not add travel lanes or increase traffic on the roadway, the project would result in negligible change in the overall greenhouse gas emissions associated with use of the roadway. Therefore, the project is not expected to have a significant impact on Global Climate Change.

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

Almost all air basins in California are non-attainment areas for one or more criteria air pollutants. Activities that emit criteria air pollutants could have a significant cumulative impact on air quality. As noted above, the San Francisco Bay Area Air Basin is currently non-attainment for ozone (State and federal ambient standards).

The project is consistent with the Contra Costa County General Plan (2005) which contains a number of policies that aim to improve air quality. Therefore, the project will have a less than significant impact on cumulative impacts.

- d) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Construction of the project will not increase the capacity of Vasco Road above existing conditions. A temporary increase in the concentration of pollutants could occur during construction of the project (see b above). Sensitive receptors include those segments of the population most susceptible to poor air quality such as children, the elderly, and those with pre-existing serious health problems affected by air quality or those places such as schools/schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities where sensitive receptors are often located (California Air Resources Board 2009). The project will not expose sensitive receptors to substantial pollutant concentrations. The project will have no impact.

- e) *Would the project create objectionable odors affecting a substantial number of people?*

Construction equipment and asphalt paving used to complete the project could create temporary objectionable odors; however, given the rural nature of the project area and the lack of residences and other potential sensitive receptors, the impact of temporary objectionable odors will be negligible. The project will not create permanent objectionable odors affecting a substantial number of people. Project impacts will be less than significant.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on 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?	☐	☐	☐	☒

Environmental Setting

The project area generally consists of flat to rolling, hilly topography dominated by grasslands and ranging in elevation from approximately 45 to 152 meters (150 to 500 feet). The study area and its surroundings are active ranchland (cattle grazing), protected watershed (Contra Costa Water District), regional park property (East Bay Regional Park District), and privately-owned property including wind energy farms. The immediate project area has been subjected to extensive landform modification, including extensive cut and fill for the construction of Vasco Road in 1995 and 1996. Brushy Creek and an unnamed tributary meander through much of the study area, with Brushy Creek crossing under Vasco Road in two locations

within the project area. Currently there are many concrete v-ditches and culverts associated with the cut and fill slopes that are intended to provide drainage and wildlife passage under the road. Right of way fencing in some portions of the road, specifically designed to impede wildlife from reaching the road, directs animals toward undercrossings.

The roadway is surrounded primarily by grasslands including ruderal vegetation (weedy non-native vegetation), annual grasslands (non-native annuals species), native grasslands (native species scattered within the non-native grasslands), and alkali grassland (native and non-native species generally occurring on alkaline soil units). There is limited riparian woodland/scrub habitat associated with Brushy Creek and its unnamed tributary; however, the majority of Brushy Creek and its tributary do not have a riparian overstory and instead display more wetland habitat characteristics than riparian habitat characteristics. There are (perennial) permanent wetlands within the Brushy Creek channel and on its floodplain as well as the unnamed tributary to Brushy Creek. In addition there are seasonal wetlands in depressions within the adjacent grasslands and in flat low areas at the base of hillsides.

Literature and Field Review

Condor Country Consulting, Inc. (CCCI), was contracted to conduct a biological analysis of the project area and to assess the potential impacts of the project on natural resources. Literature review for the site consisted of a review of the California Department of Fish and Game's Natural Diversity Data Base (CNDDDB), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants, USFWS Special Status Species list, and the United States Department of Agriculture (USDA) soil surveys. A list of species and habitats potentially occurring within the project vicinity was developed based on information compiled from the USFWS species list, the CNDDDB (June 2007 and February 2009), the CNPS electronic inventory, professional knowledge, current literature, and consultation with resource agency staff. For each list, nine quadrangles, centered on the project quadrangle (Byron Hot Springs) and all immediately surrounding quadrangles, were searched for information on sensitive plant and animal species and habitats reported from the project vicinity. These included *Byron Hot Springs*, *Antioch South*, *Brentwood*, *Woodward Island*, *Tassajara*, *Clifton Court Forebay*, *Livermore*, *Altamont*, and *Midway* 7.5-minute U.S. Geological Survey (USGS) quadrangles. Following literature review, CCCI conducted reconnaissance-level field (planning) surveys of the study area to identify vegetation communities, rare species and regulated habitats.

East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP)

The project area is located within the HCP/NCCP inventory area. Therefore, the project will follow specific avoidance and minimization measures for covered activities that have the potential to impact HCP/NCCP-covered special-status species, sensitive habitats, natural communities, and jurisdictional wetlands and other waters in eastern Contra Costa County.

These measures are consistent with the USFWS and CDFG guidelines. Special-status species not covered under the HCP/NCCP were also addressed. This project is listed as a covered activity (Rural Infrastructure Projects) in Chapter 2.3 of the HCP/NCCP (JSA 2006) and it is specifically subject to the requirements of Conservation Measure 1.14 (Design Requirements for Covered Roads Outside the Urban Development Area) as well as other applicable conservation measures.

Conservation Measure 1.14 recognizes that road improvements that occur outside the urban development area (UDA) may have impacts on covered species that exceed the direct impacts of their project footprints. To minimize the direct as well as indirect impacts, rural road projects must adopt specific siting, design, and construction requirements detailed within the HCP. Examples of these requirements include early consultation with the HCP Implementing Entity, CDFG and USFWS to ensure that siting and construction designs meet the terms of the HCP, data collection on wildlife movement corridors for a minimum of one year, placement of project features to facilitate wildlife movement across roadway corridors, construction of fencing to limit wildlife access to roadways and direct wildlife to road crossings, and median permeability for wildlife. The conservation measure also has specific construction requirements such as compliance with the Migratory Bird Treaty Act, construction of barriers to keep wildlife out of the construction zone, and installation of silt trapping measures to minimize transport of sediment off site.

Consistent with the HCP, applicable Siting, Design, Construction and Post-construction Requirements will be implemented including:

- siting equipment storage away from sensitive areas;
- preventing erodible materials from entering watercourses;
- avoid impacts to no-take species;
- compliance with the Migratory Bird Treaty Act (MBTA);
- using approved methods for temporary stream diversion to minimize in stream impacts and effects on wildlife;
- installation of silt fencing or other sediment trapping method down-gradient from construction activities to minimize transport of sediment off-site;
- installation of barriers to keep wildlife out of construction sites, as appropriate;
- conducting on-site monitoring throughout the construction period to ensure that disturbance limits, BMPs, and HCP restrictions are being implemented properly; and
- watering active construction areas regularly to minimize the impact of dust on adjacent vegetation and wildlife habitats, if warranted.
- Revegetating cut and fill slopes with native, non-invasive non-native grasses suitable to site conditions
- Regular monitoring and maintenance of wildlife fencing, median opening, and crossings to ensure proper functioning

Wildlife Movement Study

To meet the wildlife movement study requirements of Conservation Measure 1.14 of the HCP, a nineteen month long Wildlife Movement Study was conducted for the project to determine what vertebrate species occur within the study area, where and when they move, and which landscape features are most often used. The study was conducted in coordination with staff from CDFG (Janice Gan, Suzanne Gilmore), USFWS (Sheila Larsen) and the HCP Conservancy (John Kopchik).

The study included four components: a tracking survey, a mortality survey, a trapping survey, and remote camera survey. The tracking survey was designed to detect wildlife use of and movement within the study area with a specific focus on San Joaquin kit fox. Scented lures were placed within a gypsum powder-coated station (square patch of ground that had been cleared of vegetation and debris) at locations where there was evidence of existing animal traffic and all wildlife tracks (e.g., footprints, tail drags, and scat) were recorded. A total of 20 tracking stations were constructed.

The mortality survey was designed to determine where terrestrial vertebrate species use the road and to define areas with high-volume vertebrate mortality. The surveys consisted of walking the full length of the 2.5 mile length of the project area in both directions and documenting to species and age class all vertebrate roadkills in the traffic lanes, median, or shoulders. The surveys were conducted November through April each night that rain started before 7:30 pm and each morning following a night with forecast rain, and May through October twice weekly. The study was refined to add an additional once a week study when the forecast chance for precipitation was low.

The trapping survey consisted of installing modified minnow traps at the ends of culverts nearest breeding habitat as well as several traps along the east side of Vasco Road to target animals traveling to or from Vasco Road perpendicular to the road. A total of 51 traps were installed.

The remote camera survey was designed to detect San Joaquin kit fox and other mammal movement through exiting underpasses within the study area via passive infrared (motion and heat) remotely triggered cameras. However, the survey was modified to also detect amphibian movement during the rainy season by using cameras that could be switched from the heat and motion mode to a time lapse mode. Although there were some challenges associated with the remote camera stations (including camera malfunction, vandalism and theft), the camera stations successfully took hundred of thousands of photos with almost 1100 photos providing data on unidentified species.

Project Design Features to Ensure Wildlife Permeability

The HCP requires that the post-project condition not increase the number of wildlife mortalities beyond the pre-project condition. In order to ensure that this requirement can be met, the project includes several design features to ensure no increase in mortality results for the roadway safety improvements. With the following measures incorporated into the project design, wildlife permeability under Vasco Road will be improved beyond the current condition. These design features are expected to substantially reduce wildlife mortality, improve genetic flow and reduce habitat fragmentation all of which will improve the viability of wildlife species populations.

Specific to wildlife crossing, the HCP requires large wildlife crossings (minimum of 5 feet in diameter) be spaced at least every mile and small mammal crossings (18 to 48 inches in diameter) be spaced at least every 1000 feet. Large wildlife crossings are intended for medium and large mammals, and the HCP defines San Joaquin kit fox as a medium-size mammal. The HCP also requires that the latest science direct design where it differs from specific HCP requirements. Based on the results of the wildlife movement study and the HCP requirement to use the latest science, the project will install up to six 5 foot square undercrossings and seventeen 20 to 24 inch diameter undercrossings along the 2.5 mile alignment. Spacing and sizing will be dependent on distance from existing crossings and constructability, but small crossings are intended to be spaced approximately every 600 feet and large crossings roughly every 1640 feet. All new small wildlife crossings will include overhead grating in the median and on both shoulders when safety is not an issue. Median barriers will incorporate scuppers and breaks following Caltrans standard design. Scuppers for small wildlife will be incorporated every 300 feet where they do not create a safety hazard by allowing drainage runoff to stream across traffic lane. Breaks (i.e., full height openings) in the median will occur on tangent sections of the road every 1000 feet in a like manner. Wildlife fencing will be installed along the entire length of the project on both sides of the roadway. The fencing will connect to each existing and new undercrossing and will extend a minimum of 164 feet beyond the outermost culvert. The wildlife fencing with connection to the undercrossings is designed to prevent wildlife from entering the roadway and facilitate their crossing under the roadway. Earthen jump outs that allow trapped wildlife to escape the roadway will be installed on both sides of the road abutting the wildlife fencing. Jump-outs will be spaced approximately every 300 feet for small animals and every 1000 feet for large animals, except where retaining walls or other physical barriers preclude placement. Barriers to cattle crossing will be included in all four foot or larger culverts.

HCP Avoidance, Minimization and Mitigation Measures

There are a number of species specific avoidance and minimization measures that are required by the HCP. These measures are discussed in detail within each respective wildlife species discussion below. In addition to species-specific avoidance and minimization measures the HCP/NCCP utilizes a variety of development-based fees to fund mitigation that will offset

losses of land cover types, covered species habitat, and other biological values. This project will have permanent and temporary impacts to land and jurisdictional waters of the U.S. and state, including seasonal wetlands. Therefore, CCCPWD will pay applicable mitigation fees to the East Contra Costa County Habitat Conservancy as identified in the Wetland Mitigation Fee Table 9-5 and Rural Road Fee Table 9-6 in Chapter 9 of the HCP/NCCP and described within the mitigation sections below.

Potential Environmental Effects

- 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 Game or U.S. Fish and Wildlife Service?*

Special-status species were identified to have the potential to occur in the project area and surrounding vicinity as described below. Species-specific avoidance and minimization measures as described in section 6.4.3 of the HCP/NCCP (and summarized below in species-specific discussions) will be implemented. Because the HCP addresses mitigation for species and habitat impacts on a program-level basis rather than a project-by-project or species-by-species basis, the mitigation for species impacts are noted at the end of this section rather than within each individual species or habitat discussion.

Wildlife

Pallid bat (*Antrozous pallidus*)

The pallid bat is considered a species of special concern by the California Department of Fish and Game. Pallid bats occur in open scrub, desert scrub, and open pine forest and oak woodland. This species is often associated with mines, caves, and large rock outcrops where it day and night roosts. While no formal bat surveys were conducted, bat sign was documented during planning surveys within the study area. There is suitable foraging habitat for the pallid bat in the project area and although unlikely, the two bridges may provide roosting habitat for this species. No records of pallid bat were reported for the area or the study site.

Avoidance and Minimization Measures

Pallid bats are year-round resident species - the bats switch between day and night roosts but they don't change locations based on season. Pallid bats are not specifically covered by the HCP; however, the avoidance and minimization measures required by the HCP for another bat species, Townsend's western big-eared bat (discussed later) will effectively avoid and minimize impacts to the pallid bat. These measures include conducting a pre-construction survey immediately prior to construction to establish presence/absence of the

species. If occupation is established during that survey, the roosting sites (which could include the weep holes on the bridges and the seams at the bridge abutment joints) will be sealed when the bats are not present.

Project Impacts

The project will result in the permanent loss of 29.48 acres of bat foraging habitat. Temporary impacts will occur on 2.742 acres of foraging and roosting habitat. No permanent loss of roosting habitat will occur since the widened bridges will be available as roosting habitat once construction has been completed.

Townsend's western big-eared bat (*Corynorhinus townsendii*)

Townsend's western big-eared bat is considered a species of special concern by the California Department of Fish and Game and is covered by the HCP. No focused bat surveys were conducted, although bat sign was documented during planning surveys within the study area. There is suitable foraging and roosting habitat in the project area for Townsend's western big-eared bat.

Avoidance and Minimization Measures

Townsend's big-eared bat is covered by the HCP, so avoidance and minimization efforts for this species are already formulated. In order to minimize impacts to Townsend's western big-eared bat, a pre-construction survey will be conducted immediately prior to construction to establish presence/absence of the species. If evidence of occupation is established, then construction will be scheduled to avoid impacts on hibernation or nursery sites (during the months of November through August). Alternatively a pre-construction survey can be conducted in advance of construction in those months that bats are likely to occur. If occupation or recent prior occupation is established during that survey, the roosting sites will be sealed when the bats are not present (i.e., during the months of September and October).

Project Impacts

The project will result in the permanent loss of 29.48 acres of bat foraging habitat. Temporary impacts will occur on 2.742 acres of foraging and roosting habitat. No permanent loss of roosting habitat will occur since the widened bridges will be available as roosting habitat once construction has been completed.

Western Red Bat (*Lasiurus blossevillei*)

Western red bat is a CDFG species of special concern. Foraging habitat associations for this species include grasslands, shrublands, open woodlands and forests, and croplands. While no formal bat surveys were conducted, bat sign was documented during planning surveys within the study area. There is suitable foraging habitat for the Western red bat in the project area but no suitable roosting habitat for this species. No records of Western red bat were reported for the area or the study site.

Avoidance and Minimization Measures

Given that there is no roosting habitat in the project area, no avoidance and minimization measures are necessary.

Project Impacts

The project will result in the permanent loss of 29.48 acres of western red bat foraging habitat and the temporary loss of 2.742 acres of foraging habitat.

Yuma myotis (*Myotis yumanensis*)

Yuma myotis is considered a species of concern by USFWS. The species is often associated with barns and bridges, as well as caves, mines, crevices, bark of tree snags, and abandoned swallow nests. While no formal bat surveys were conducted, bat sign was documented during planning surveys within the study area. There is suitable foraging and roosting habitat for Yuma myotis in the project area. No records of Yuma myotis were reported for the area or the study site.

Avoidance and Minimization Measures

Yuma myotis are not specifically covered by the HCP; however, the avoidance and minimization measures required by the HCP for another bat species, Townsend's western big-eared bat (discussed previously) will effectively avoid and minimize impacts to the Yuma myotis. These measures include conducting a pre-construction survey immediately prior to construction to establish presence/absence of the species. If evidence of occupation is established, then construction will be scheduled to avoid impacts on hibernation or nursery sites (during the months of November through August). Alternatively a pre-construction survey can be conducted in advance of construction in those months that bats are likely to occur. If occupation or recent prior occupation is established during that survey, the roosting sites will be sealed when the bats are not present (i.e., during the months of September and October).

Project Impacts

The project will result in the permanent loss of 29.48 acres of foraging habitat and the temporary loss of 2.742 acres of foraging and roosting habitat. No permanent loss of roosting habitat will occur since the widened bridges will be available as roosting habitat once construction has been completed.

American Badger (*Taxidea taxus*)

Badgers are a species of special concern for the California Department of Fish and Game. Nearly every dry or moderately moist habitat in California is used by the badger.

Badgers occur in most habitats with the exception of dense forests. American badgers and their sign (tracks and burrows) were observed during planning surveys. Foraging, breeding, refugia and dispersal habitat exists on and adjacent to the study area.

Numerous badgers were recorded in the road mortality surveys and track station surveys. No badgers were observed with remote cameras, suggesting that the currently installed culverts and fencing do not effectively direct badgers under the road.

Avoidance and Minimization Efforts

Although badgers are not covered by the HCP, the steps that will be taken to avoid and minimize impacts to San Joaquin kit foxes should substantially benefit badgers (see kit fox discussion below).

Project Impacts

American badgers and San Joaquin kit fox are found in and use similar habitats in the project area. See kit fox below for a discussion of potential project impacts to the species. Road killed badgers were frequently sighted along Vasco Road during the wildlife movement studies. It is expected that the new fencing and increased underpasses (including ones that allow light to penetrate into the underpass) will increase the rate at which badgers pass safely under Vasco Road, therefore they should benefit substantially from the permeability features that are being incorporated into the project design.

San Joaquin Kit Fox (*Vulpes macrotis mutica*)

The San Joaquin kit fox is listed as threatened by the state of California under the California Endangered Species Act (CESA) and endangered under the Federal Endangered Species Act (FESA). San Joaquin kit fox is a covered species under the HCP. San Joaquin kit fox can be locally common in some areas of their range but are typically rare, particularly in the northern portion of their range (Contra Costa County). Typical habitat for this species is open grassland along the Central Valley floor and surrounding foothills. Kit fox also utilizes open scrublands in various portions of California. Friable soils appear to be an important characteristic of suitable kit fox habitat. Dens of the kit fox are typically associated with small mammal burrows (especially California ground squirrel). The San Joaquin kit fox was not observed during planning surveys; however, they are known from the general area and from a CNDDB review. This species was observed in close proximity to the study area in the 1980s during pre-construction surveys for the construction of Vasco Road. Kit fox have been reported by land managers at the Vasco Caves Regional Preserve during the last five years and once in 2008 on the nearby Los Vaqueros Watershed. Observation of a single fox and tracks were observed in 1996 along Frisk Creek which crosses Vasco Road north of the study area. Kit fox hunting, breeding, denning, and dispersal habitat exists on and adjacent to the study area.

Avoidance and Minimization Measures

Given that suitable burrows were identified within the project area and 250-foot buffer during the planning surveys, pre-construction surveys must be conducted which follow USFWS guidelines and meet HCP requirements. The surveys must occur within 30 days prior to ground disturbance. Pre-construction surveys will follow the "U.S. Fish and Wildlife Service San Joaquin Kit Fox Protocol for the Northern Range" (USFWS 1999) and determine the status of and map all dens. Biologists performing these surveys must be approved by USFWS and CDFG. All natal dens identified will be reported to the USFWS and CDFG immediately and written results of the pre-construction survey will be submitted to USFWS within 5 working days after the completion of the survey and

before the start of construction. Concurrence is not required prior to initiation of covered activities.

Dens suitable for kit fox were mapped for the planning survey. The map of these den locations will be used as a guide for locating potential SJKF dens, but pre-construction surveys will thoroughly cover the entire project action area (project area) plus a 250-foot buffer. Adjacent parcels under different land ownership will not be surveyed. If a den is discovered within the proposed construction footprint, the den will be monitored for three days by a USFWS/CDFG approved biologist to determine if the den is currently being used. Unoccupied dens will be destroyed immediately.

Prior to the start of construction, exclusion zones will be placed around active dens according to HCP and protocol requirements. If a natal or pupping den is found, USFWS and CDFG will be notified immediately. The den will not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFG. Efforts will be made to discourage kit fox use of any non-natal dens within the project action area. Because kit fox change dens frequently, the den will be monitored for 5 days to determine whether the den becomes inactive, at which point it may be destroyed. If a non-natal den remains active, use can be discouraged by partially plugging entrances with soil. If the animal is still present after 5 or more consecutive days of plugging and monitoring, then the den will be excavated when, in the judgment of the biologist, it is temporarily vacant.

All active dens will be monitored during construction. If dens are found within the kit fox survey area but outside the project action area, exclusion zones will be installed around each den entrance or cluster of entrances. No human activity will occur within the exclusion zones. Four or five flagged stakes will demarcate the exclusion zones. Stakes will be placed in a circle around each den or den complex at a distance of at least 50 feet for potential dens and at least 100 feet for active dens. Staking will be installed so that it does not prevent access to the den by kit fox.

During construction and where practicable, undercrossings and associated directional fencing will be actively maintained and/or modified to allow for wildlife crossing and to impede wildlife from entering the project area. Onsite monitoring will occur throughout construction to ensure that work limits, BMPs, and wildlife-associated restrictions are being implemented. All construction areas with exposed soils will be watered regularly to reduce dust effects on adjacent habitat.

As required by Conservation Measure 1.14 of the HCP, this project has been designed with various measures that will reduce wildlife mortality along the road and increase road permeability. These measures include improved wildlife fencing to keep animals off the road and direct them toward undercrossings, more and better designed culverts for wildlife passage, and a permeable median so that if an animal does find its way onto the road it is less likely to become trapped by the median. Specific design features for kit fox include the addition of six large undercrossings, continuous five foot high fencing that connects all new and existing undercrossings in the project action area, kit fox fencing

extending at least 164 feet beyond the outermost undercrossings, and breaks in the concrete median every 1000 feet and earthen jump-outs to accommodate passage of any medium or large sized animals caught on the roadway.

Project Impacts

Implementation of the avoidance and minimization measures will reduce or eliminate the potential for direct mortality, harassment, or disruption/loss of reproduction to occur for kit fox as a result of construction activities.

The direct effects of the project include permanent and temporary loss of habitat, lost hunting opportunities, and diminished access to habitat across the road. Project construction will result in the permanent loss of 29.450 acres and temporary loss of 2.631 acres of kit fox foraging, denning, and dispersal habitat.

In addition to habitat loss there may be a loss of hunting opportunities associated with project disturbance affecting prey activity, availability, or accessibility within and around the project action area. Use of K-rail or other temporary barriers to separate the paved portion of the work area from active traffic lanes may block access to habitat on the opposite side of the road. Bridge widening and construction activity associated with modifying existing culverts may also block access to habitat on the other side of the road. Food trash associated with humans may attract predators, resulting in increased predation. Dogs will not be allowed as they may harm kit fox and/or its prey.

Indirect effects of the project on kit fox are those typical of road expansion and median barrier installation projects. They include increased habitat fragmentation, decreased potential for dispersal, increased mortality and injury, increased toxicity and sedimentation of surrounding habitats, and increased roadside debris that through ingestion or physical contact can be harmful to wildlife. Indirect effects will also occur to kit fox to the extent that they use existing undercrossings on Vasco Road. This species does not avoid highways when traveling from place to place and has shown some aversion to using undercrossings in the absence of directional fencing. Within the study area, two wildlife undercrossings and some tiger salamander fencing were installed as mitigation for the construction of Vasco Road. The road widening associated with this safety improvement project may make both existing wildlife-specific and water conveyance undercrossings less effective passage for kit fox by increasing the length of undercrossings and thereby decreasing their openness factors. However, the project includes installation of additional undercrossings and fencing of all undercrossings and is expected to increase the likelihood of use by all wildlife including kit fox.

Northern Harrier (*Circus cyaneus*)

Northern harriers are considered a species of special concern by CDFG. They are also offered protection under the Migratory Bird Treaty Act (MBTA). Typically, northern harriers are found breeding in association with salt- and fresh-water marshes. They forage over a wide range of habitat types but are most commonly found foraging over

annual and perennial grasslands and wet marshes. Northern harriers nest on the ground or within dense wetland or shrubby vegetation. A northern harrier was detected by one of the remote cameras in a large culvert (10 ft diameter). Northern harriers are therefore present, and expected to forage in the study area. Because there is little ground-level dense habitat, this species is not expected to nest in the study area.

Avoidance and Minimization Measures

Northern harriers are not covered by the HCP, but other raptor species that could occur on the project site (e.g., golden eagle, Swainson's hawk) are, and avoidance and minimization efforts for those species will likely benefit northern harriers (see below). Planning surveys did assess whether or not there was suitable breeding habitat for this species in the project action area, and none was identified.

Project Impacts

Permanent and temporary impacts to this species will include loss of foraging habitat (grassland, wetland). In addition to habitat loss there may be a temporary loss of hunting potential associated with project disturbance affecting prey activity, availability, or accessibility within and around the project area. Project construction will result in the permanent loss of 29.498 acres of northern harrier foraging habitat. Project construction will result in the temporary loss of 2.742 acres of foraging habitat.

Swainson's Hawk (*Buteo swainsoni*)

In California, Swainson's hawks are a state threatened species. They are also offered protection under the MBTA. Swainson's hawks are a covered species in the HCP. Swainson's hawks are generally found through the central portion of southern California and throughout the Central Valley. Nesting habitat includes sycamores, cottonwoods and other tall trees. In California, they are often observed feeding during or after the harvest of crop species that host large small mammal populations. Two Swainson's hawks were observed during planning surveys. They are also known from the general area and from a CNDDDB review. Foraging habitat exists on and adjacent to the study area. Swainson's hawks are not expected to breed within the study area as there is no suitable habitat.

Avoidance and Minimization Measures

A planning survey was conducted that followed the HCP requirements. A CDFG-approved biologist inspected all large trees with binoculars to document whether Swainson's hawk were nesting on site. Surveys were conducted according to the Swainson's Hawk Technical Advisory Committee's methodology (May 31, 2000).

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a CDFG-approved biologist will conduct a pre-construction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk

activity (e.g., foraging) near the project site. If nests are occupied, minimization measures, including establishment of a buffer between the nest and construction activities (see below), and construction monitoring are required.

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If project conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could reasonably be used, the Public Works Department and the Conservancy will coordinate with CDFG to determine the appropriate buffer size. If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Conservancy for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFG. While the nest is occupied, activities outside the buffer can take place.

Project Impacts

Primary permanent effect on Swainson's hawks is the loss of foraging habitat (grassland). A temporary, direct effect will be increased exposure to humans (construction crews), possibly rendering the area in and around the project as unsuitable for foraging. In addition, the noise and movement of large construction-related equipment (including pile drivers) may render the project area inhospitable to Swainson's hawk. The project will result in the permanent loss of 29.450 acres and a temporary loss of 2.631 acres of foraging habitat for Swainson's hawk.

Golden Eagle (*Aquila chrysaetos*)

Golden eagles are fully protected in the state of California (California Fish and Game Code: Sec. 3511) and are considered a species of concern. They are also fully protected by the federal government under the Bald and Golden Eagle Protection Act (BGEPA). Golden eagles are offered further protection by the Migratory Bird Treaty Act. They are also an HCP-covered species. Within California they are locally common in appropriate habitat. Golden eagles are often associated with large open habitats including desert scrub, annual and perennial grasslands, and oak savannahs. Nesting habitat includes large oaks, pines, power towers, cliff faces, and other high and easily accessible structure. Suitable golden eagle habitat must also have populations of ground squirrel, cottontail, and hare, upon which the eagles forage. Ground squirrels, cottontails, and hares provide abundant prey for this species within the study area. Golden eagles were observed during planning surveys, are known from the general area, and from CNDDDB locations. Only foraging habitat exists in the study area.

Avoidance and Minimization Measures

Conservation Measure 1.14 of the HCP requires that construction activities comply with the MBTA and consider seasonal requirements for birds and migratory non-resident species. HCP-covered activities are prohibited within 0.5 mile of active golden eagle

nests. In order to meet the requirements of Conservation Measure 1.14 and the HCP species-level measures specific to golden eagle, pre-construction surveys of all golden eagle nesting habitat within 0.5 mile of the project area, conducted by a qualified biologist, will take place prior to implementation of covered activities. If an active nest is found, a 0.5 mile buffer will be established, excluding all project activity, and will be monitored by a qualified biologist until the biologist has determined that any eaglets have fledged and are able to forage on their own. If site-specific conditions or the nature of the activity being conducted indicate that a smaller or larger buffer could be appropriate, CDFG and USFWS will be contacted for guidance.

Project Impacts

The project will result in the permanent loss of 29.450 acres of foraging habitat for golden eagle and a temporary loss of 2.631 acres of foraging habitat. In addition to habitat loss there may be a loss of hunting potential associated with project disturbance affecting prey activity, availability, or accessibility within and around the project area.

Western Burrowing Owl (*Athene cunicularia hypugaea*)

Burrowing owls are considered a species of concern by the CDFG. They are also offered protection under the MBTA. The western burrowing owl is an HCP-covered species. Typical burrowing owl habitat is flat or low lying open and sparsely vegetated areas of California. Burrowing owls are very often closely associated with California ground squirrels (or other burrowing mammals). The burrows of these mammals are used for nesting and refugia. Individual owls often forage along roadways and other open areas where they seek large invertebrates and small mammals. Western burrowing owls were observed during site surveys and are known from the general area and from a CNDDB review. Breeding and foraging habitat exists in and adjacent to the study area.

Avoidance and Minimization Measures

Given that the project will not fully avoid impacts to suitable breeding habitat, pre-construction surveys will be required. Prior to any ground disturbance related to covered activities, a CDFG-approved biologist will conduct a pre-construction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFG survey guidelines (California Burrowing Owl Consortium 1993).

The biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys will take place near sunrise or sunset in accordance with CDFG guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the non-breeding season (September 1–January 31), surveys will document

whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or non-breeding) during which the survey is conducted.

Construction monitoring will be required if occupied burrows are identified. If burrowing owls are found during the breeding season (February 1–August 31), the County will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1– January 31), the County should avoid the owls and the burrows they are using, if possible.

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls will be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors will be in place for 48 hours prior to excavation. The project action area will be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure will be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Project Impacts

Direct, permanent effects to this species include the loss of nesting and foraging habitat (grassland). A temporary effect may be increased exposure to humans (construction crews), rendering the area in and around project unsuitable. Also the noise and movement of large construction-related equipment (including pile drivers) may temporarily impact burrowing owl. The project will result in the permanent loss of 29.450 acres of foraging and nesting habitat for burrowing owl and a temporary loss of 2.631 acres of foraging and nesting habitat.

Loggerhead Shrike (*Lanius ludovicianus*)

Loggerhead shrikes are a CDFG species of special concern. They are also offered protection under the MBTA. In California, loggerhead shrikes are locally common (often seasonally) and resident through all but the northern portion of the state. This species prefers open scrublands, grasslands, and other open habitats that also have perches like fences or utility pole lines, trees and shrubs. This species also requires widely scattered dense shrubs or low trees in which they nest. Loggerhead shrikes were observed during site surveys and are known from the general area and from a CNDDDB review. Breeding and foraging habitat exists in and adjacent to the study area.

Avoidance and Minimization Measures

This species is not covered by the HCP but potential impacts to loggerhead shrikes will be avoided and minimized through measures for HCP-covered grassland-dependent bird species such as golden eagle (see above).

Project Impacts

Direct, permanent effects to this species include the loss of foraging habitat (grassland). A temporary effect may be increased exposure to humans (construction crews), rendering the area in and around the project as unsuitable for foraging. In addition, the noise and movement of large construction-related equipment (including pile drivers) may temporarily affect loggerhead shrikes.

The project will result in the permanent loss of 29.450 acres and a temporary loss of 2.631 acres of foraging habitat for loggerhead shrike.

Tricolored Blackbird (*Agelaius tricolor*)

Tricolored blackbirds are considered by CDFG to be a California species of special concern. This species is also protected by the MBTA, and is an HCP-covered species. Tricolored blackbirds are considered resident birds but they do make short seasonal migratory movements. Generally, breeding occurs March through August. Breeding sites are very highly associated with dense vegetation that provides protection from predators. Tricolored blackbirds are known to breed within a mile of the project area; however, the project area does not support the dense thickets of habitat required for tricolored blackbird nesting. Foraging habitat exists in and adjacent to the study area. Habitat in the study area is insufficiently dense to support breeding tricolored blackbirds. Tricolored blackbirds were observed during site surveys and are known from the general area and from a CNDDDB review.

Avoidance and Minimization Measures

While tricolored blackbird is an HCP-covered species, there are no species-specific measures that must be implemented for the species above and beyond what is required by the MBTA and Conservation Measure 1.11 of the HCP. Conservation Measure 1.11 will be complied with, and Conservation Measure 1.14 incorporates avoidance guidelines for compliance with the MBTA (see migratory bird discussion below).

Project Impacts

Direct, permanent effects to this species include the loss of foraging habitat (grassland, wetlands). A temporary effect may be increased exposure to humans (construction crews), possibly rendering the area in and around the project as unsuitable for foraging. Also the noise and movement of large construction-related equipment (including pile drivers) may temporarily affect tricolored blackbirds. Project construction will result in the permanent loss of 29.498 acres of tricolored blackbird foraging habitat. Temporary foraging habitat loss will occur on 2.742 acres.

Western Pond Turtle (*Actinemys marmorata*, *Clemmys marmorata*)

The pond turtle is considered a species of special concern by CDFG. Western pond turtle is an HCP-covered species. Slow moving rivers, streams, backwaters, small lakes, stock ponds, drainage ditches, and agricultural sloughs, and their associated uplands, are typical habitat for these turtles in California. The species is “obligately tied” to terrestrial habitat for nest construction and egg laying. Upland areas are also habitat requirements and they are used for dispersal, basking, nest building, aestivation, and other purposes.

Western pond turtles were not observed during planning surveys. However, they are known from the general area and from a CNDDDB review. This species occurs commonly to the west, at the Los Vaqueros watershed, and to the northwest in Kellogg Creek. Foraging, breeding, refugia and nesting habitat exists within and adjacent to the study area.

Avoidance and Minimization Measures

Implementation of Conservation Measure 1.14 will avoid or minimize many of the potential direct and indirect effects the project would otherwise have on pond turtle. Components of Conservation Measure 1.14 relevant to pond turtle will decrease or eliminate sedimentation of watercourses, the road’s effect as a movement barrier, and road- and construction-associated mortality.

In order to minimize sedimentation associated with construction, silt fencing will be placed down gradient of all construction activity to reduce the potential for erosion. The project will construct barriers to keep wildlife out of the construction site in order to minimize construction-associated mortality.

Other requirements of Conservation Measure 1.14 relevant to the turtle include installing wildlife culverts under the road. These additional crossings will be installed so that they are less than 1000 feet apart, where physically practicable, and incorporate overhead grating outside the traffic lanes to improve light and moisture conditions within the culverts. The new culverts will be a minimum of 20 inches in diameter and as short as possible. They will be designed to allow as much moisture as possible into the culverts without allowing ponding or substantial flow. Native soil will be placed around and into the entrances of the culverts to encourage use by wildlife.

A critical component of Conservation Measure 1.14 is to install directional fencing. New fencing will be installed on both sides of the road for the entire length of the project, connecting to all existing and new culverts. Fencing will be no less than 20 inches high and made of a highly durable, impermeable material or durable metal mesh with holes no larger than ¼ inch square. Amphibian fencing will be attached to kit fox fencing and travel the same pathway. Fencing will extend at least 164 feet beyond the outermost culvert connections.

In order to improve the survival rate of animals caught within the roadway, the median barrier will incorporate scuppers to the Caltrans standard every 300 feet where traffic safety allows. In addition, earthen jump-outs will be constructed along the fence to allow animals to escape the road corridor. Both the jump-outs and the newly constructed culverts will incorporate a barrier at a right angle to the fencing to direct animals over the fence or into culverts.

If any western pond turtle are found prior to construction or during construction monitoring, CDFG will be notified prior to moving animals out of harm's way.

Project Impacts

Impacts to pond turtles are likely to be similar to those experienced by California tiger salamander (see below). Both species use wetland/creek habitat and upland habitat, and both are slow moving, poikilotherms ("cold blooded" animals) which reproduce slowly. Project construction will result in the permanent loss of 29.498 acres of western pond turtle aestivation, migration, and dispersal habitat. Temporary habitat loss will occur on 2.742 acres.

California Tiger Salamander (*Ambystoma californiense*)

The California tiger salamander (CTS) is a candidate for listing as endangered under CESA and considered a species of special concern by CDFG. This species is also listed as threatened under the FESA. The species is covered by the HCP. Two important components are necessary for suitable CTS habitat: upland-aestivation and aquatic-breeding habitat. Upland aestivation habitat is chiefly composed of upland grasslands and savannah surrounding aquatic breeding sites. Upland aestivation habitat also requires small mammal burrows within which the CTS will enter and aestivate. Aquatic breeding sites include stock ponds, vernal pools, and slow moving creeks. Critical habitat for CTS does not occur within the project area because this part of the County is under the purview of the HCP. CTS were detected in both road mortality and trapping surveys and were distributed throughout the project area. There are known breeding ponds within five miles of the project action area, and suitable CTS aestivation sites are numerous throughout the entire project action area. Marginally suitable breeding habitat was detected within the project action area on Brushy Creek.

Avoidance and Minimization Measures

Avoidance and minimization measures defined in the HCP guidelines include planning surveys to identify CTS breeding habitat and notification of agencies if any breeding habitat is found in order to allow agency representatives an opportunity to relocate CTS prior to construction if they so choose. Marginally suitable breeding habitat was identified within the project action area during planning surveys along Brushy Creek. Construction will dewater the two bridge crossings in order to construct the bridge widening. Thirty days prior to dewatering, the County will contact the USFWS and CDFG to allow them to relocate any CTS found in the dewatering area, prior to the dewatering.

Implementation of Conservation Measure 1.14 will avoid or minimize many of the potential direct and indirect effects the project would otherwise have on CTS. Components of Conservation Measure 1.14 relevant to CTS will decrease or eliminate sedimentation of watercourses, the road's effect as a movement barrier, and road- and construction-associated mortality.

In order to minimize sedimentation associated with construction, silt fencing or other appropriate BMPs will be placed down gradient of all construction activity to reduce the potential for erosion.

The project will construct barriers to keep wildlife out of the construction site in order to minimize construction-associated mortality.

Other requirements of Conservation Measure 1.14 relevant to CTS include installing small wildlife culverts designed specifically for CTS and other amphibians to cross under the road. These additional crossings will be installed so that they are less than 1000 feet apart where physically practicable and incorporate overhead grating outside the traffic lanes to improve light and moisture conditions within the culverts. CTS culverts will be a minimum of 20 inches in diameter. Culverts will be as short as possible and will be designed to allow as much moisture as possible into the culverts without allowing ponding or substantial flow. Native soil will be placed around and into the entrances of the culverts to encourage use by amphibians.

A critical component of Conservation Measure 1.14 is to install directional fencing. New fencing will be installed on both sides of the road for the entire length of the project, connecting to all existing and new culverts. CTS fencing will be no less than 20 inches high and made of a highly durable, impermeable material or durable metal mesh with holes no larger than ¼ inch square. CTS fencing will be attached to kit fox fencing and travel the same pathway. Fencing will extend at least 164 feet beyond the outermost culvert connections. In order to improve the survival rate of animals caught within the roadway, the median barrier will incorporate scuppers to the Caltrans standard every 300 feet where traffic safety allows. In addition, earthen jump-outs will be constructed along the fence to allow CTS to escape the road corridor. Both the jump-outs and the newly constructed culverts will incorporate a barrier at a right angle to the fencing to direct animals over the fence or into culverts.

Project Impacts

The direct effects of the project on CTS include permanent loss of aestivation, migration, and dispersal habitat; mortality for any individuals that are aestivating within the project action area; disruption or loss of reproduction; and diminished access to breeding, aestivation, and dispersal habitat across the road. Project construction will result in the permanent loss of 29.498 acres of CTS aestivation, migration, and dispersal habitat. Temporary habitat loss will total 2.742 acres.

Mortality may occur for CTS aestivating within the project action area because construction may remove substrate in which they are aestivating or deposit fill over aestivation sites. Use of K-rail or other temporary barriers to separate the paved portion of the work area from active traffic lanes may block access to habitat on the other side of the road. Bridge widening and construction activity associated with modifying existing culverts may also block access to habitat on the other side of the road during construction.

The indirect effects of the project on CTS are those typical of road expansion and median barrier installation projects. They include increased habitat fragmentation, decreased potential for dispersal, increased mortality and injury, increased toxicity and sedimentation of surrounding habitats, and increased roadside debris that through ingestion or physical contact can be harmful to wildlife.

Indirect impacts may also occur to species that use existing undercrossings on Vasco Road. These undercrossings were installed as mitigation for the construction of Vasco Road. The road widening associated with this safety improvement project may decrease efficiency of the existing undercrossings by increasing their length and decreasing the openness factor of each crossing. However, more extensive and improved fencing to direct animals toward these undercrossings and keep them off the road will significantly improve undercrossing function.

Western Spadefoot (*Spea hammondi*)

The western spadefoot is a CDFG species of special concern. Western spadefoot inhabits lowland valley and foothill grasslands, open chaparral, and pine-oak woodlands. It frequents washes, floodplains, alluvial fans, playas, and alkali flats where grasses are short and the soil is sandy or gravelly. It breeds in quiet streams and temporary pools from January through May. Western spadefoot spends the majority of the dry season aestivating in underground burrows they dig themselves. This species occurs in ephemeral pools and slow flowing creeks as well as surrounding uplands.

Avoidance and Minimization Measures

Habitat preservation and mechanical exclusion of wildlife from construction areas, devised for the protection of other amphibian species, will also benefit the spadefoot. If any western spadefoot are found prior to construction or during construction monitoring, CDFG will be notified prior to moving animals out of harm's way.

Project Impacts

Since western spadefoot requires similar habitat to CTS and other amphibians, see the CTS section for a detailed discussion of potential impacts to western spadefoot.

Project construction will result in the permanent loss of 29.498 acres of western spadefoot aestivation, migration, and dispersal habitat. Temporary habitat loss will occur on 2.742 acres.

California Red-legged Frog (*Rana draytonii*)

This species is listed as threatened under the FESA and is an HCP-covered species. Typical habitat for this species is perennial and long-lived ephemeral ponds and slow moving creeks. Like CTS, California red-legged frog (CRLF) optimal habitat includes upland habitat surrounding aquatic breeding sites. These upland sites are used much in the same way that they are used by CTS: aestivation and dispersal habitat, and as migratory pathways. Critical habitat for CRLF occurs throughout Contra Costa County and the greater East Bay. However, USFWS did not designate critical habitat within the jurisdiction of the HCP. CRLF were observed within the study area during planning surveys. They are also known from the general area and from a CNDDDB review. CRLF was detected during planning surveys, road mortality surveys, trapping, and remote camera surveys. This species is known from Brushy Creek and was one of the most commonly encountered species during wet season road mortality surveys. Mortality surveys recorded 120 CRLFs dead within the study area. Five photographs taken during remote camera surveys depict three instances of CRLFs using existing underpasses. Breeding, aestivation, and dispersal habitat exists within and adjacent to the study area.

Avoidance and Minimization Measures

The HCP states that if breeding sites are filled or surrounded, USFWS and CDFG will be notified 30 days prior to disturbance so that CRLFs may be relocated. The proposed project will not fill or surround any breeding habitat for CRLF. However, construction will dewater the two bridge crossings in order to construct the bridges. Thirty days prior to dewatering, the County will contact the USFWS and CDFG to allow them to relocate any CRLFs found in the dewatering area, prior to the dewatering.

Implementation of Conservation Measure 1.14 will avoid or minimize many of the potential direct and indirect effects the project would otherwise have on CRLF. Components of Conservation Measure 1.14 relevant to CRLF will decrease or eliminate sedimentation of watercourses, the road's effect as a movement barrier, and road- and construction-associated mortality.

In order to minimize sedimentation associated with construction, silt fencing will be placed down gradient of all construction activity to reduce the potential for erosion. The project will construct barriers to keep wildlife out of the construction site in order to minimize construction-associated mortality.

Other requirements of Conservation Measure 1.14 relevant to CRLF include installing small wildlife culverts designed specifically for CRLF and other amphibians to cross under the road. These additional crossings will be installed so that they are less than 1000 feet apart, where physically practicable, and incorporate overhead grating outside the traffic lanes to improve light and moisture conditions within the culverts.

Culverts will be a minimum of 20 inches in diameter and as short as possible. They will be designed to allow as much moisture as possible into the culverts without allowing

ponding or substantial flow. Native soil will be placed around and into the entrances of the culverts to encourage use by amphibians.

A critical component of Conservation Measure 1.14 is to install directional fencing. New fencing will be installed on both sides of the road for the entire length of the project, connecting to all existing and new culverts. Fencing will be no less than 20 inches high and made of a highly durable, impermeable material or durable metal mesh with holes no larger than ¼ inch square. Amphibian fencing will be attached to kit fox fencing and travel the same pathway. Fencing will extend at least 164 feet beyond the outermost culvert connections.

In order to improve the survival rate of animals caught within the roadway, the median barrier will incorporate scuppers to the Caltrans standard every 300 feet where traffic safety allows. In addition, earthen jump-outs will be constructed along the fence to allow CRLF to escape the road corridor. Both the jump-outs and the newly constructed culverts will incorporate a barrier at a right angle to the fencing to direct animals over the fence or into culverts.

Project Impacts

The direct effects of the project on CRLF include permanent loss of aestivation, migration, and dispersal habitat; mortality for any individuals that are aestivating within the project action area; disruption or loss of reproduction; and diminished access to breeding, aestivation, and dispersal habitat across the road. Project construction will result in the permanent loss of 29.498 acres and a temporary loss of 2.742 acres of CRLF habitat.

Mortality may occur for CRLF aestivating within the project action area because construction will either remove substrate in which they are aestivating or deposit fill over aestivation sites. Use of K-rail or other temporary barriers to separate the paved portion of the work area from active traffic lanes may block access to habitat on the other side of the road. Bridge widening and construction activity associated with modifying existing culverts may also block access to habitat on the other side of the road during construction. Dewatering at the bridges for construction purposes could affect aquatic habitat in several ways, depending on the time of year when dewatering is initiated. Various life-stages of the frog are present in the creek year round. Dewatering could result in direct take of eggs and tadpoles, if present, and could result in take of metamorphs and adults, if they are crushed or unable to find suitable habitat, having left the area. Dewatering may also result in the loss of reproductive opportunity, depending on the timing and duration of dewatering.

The indirect effects of the project on CRLF are those typical of road expansion and median barrier installation. They include increased habitat fragmentation, decreased potential for dispersal, increased mortality and injury, increased toxicity and sedimentation of surrounding habitats.

Critical Habitat for Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)

Vernal pool fairy shrimp (VPFS) is listed as threatened by USFWS. The species is covered by the HCP. The northern section of the project action area, north of the northern bridge crossing of Brushy Creek, has been designated as critical habitat for this species.

The most common habitat of VPFS is small swale vernal pools with grassy or sometimes muddy bottoms. VPFS are found in a vernal pool type unique to the area, adjacent to the project. West of Byron Hot Springs, VPFS can be found in clear water small depressions in sandstone outcrops. Planning surveys did not discover VPFS or its habitat, including the primary constituent elements of habitat, for this species in the study area. Primary constituent elements are habitat components necessary for the primary biological needs of foraging, sheltering, reproduction and dispersal. The specific microhabitat types required for this species, while in close proximity to the study area, were not found within the study area. Within the northern section of the project action area, 3.74 acres have been designated as critical habitat. Because of its proximity to the road, floristic composition, and hydrology, the critical habitat within the project action area is not suitable for the species and does not contain the primary constituent elements.

Avoidance and Minimization Measures

No avoidance or minimization efforts are necessary because the species is not present in the project action area and no suitable habitat occurs therein.

Project Impacts

The project will result in the development of 3.74 acres of critical habitat for the VPFS. However, because the habitat in the project action area is not suitable for the species, no adverse effects to the species or its critical habitat are expected.

Other Migratory Birds

All migratory bird species and their parts (including eggs, nests, and feathers) are protected by the Migratory Bird Treaty Act (MBTA). There was no comprehensive survey for migratory birds, but CCCI biologists detected two dozen species of birds, so there is the potential for some to breed in the project action area.

Avoidance and Minimization Measures

To fulfill the requirements of the MBTA, covered projects must not result in take of covered bird species. Conservation Measures 1.11 and 1.14 describe avoidance guidelines for compliance with the MBTA. Conservation Measure 1.14, Design Requirements for Covered Roads Outside the UDA, states that construction activities will comply with the MBTA and will consider seasonal requirements for birds and migratory non-resident species, including covered species.

A primary avoidance and minimization effort needed to avoid MBTA-protected species take is to have a qualified biologist conduct a pre-construction survey of the project action area if construction will occur during the nesting season (March 1 through August 31) to locate any nesting MBTA-protected birds. If any active nests are discovered, the USFWS and/or CDFG will be contacted to determine protective measures required to avoid take. These measures could include fencing off an area where a nest occurs, or shifting construction work temporally or spatially away from the nesting birds. Biologists may be required on site to monitor construction while protected migratory birds are nesting in the project action area.

In order to minimize impacts to MBTA-protected birds, nests and nesting habitat should not be disturbed or destroyed. Vegetation removal will take place between September 1 and February 28 to avoid impacts to nesting birds in compliance with the MBTA. If vegetation removal outside of these dates is necessary, a qualified wildlife biologist will conduct a preconstruction survey to ensure no active nests are present.

Specific measures to avoid and minimize impacts to swallows and swifts which may be nesting or attempt to nest in existing or newly expanded/built bridges within the project action area are as follows: in order to keep the birds from nesting in/on the bridges and the large box culvert at the far southern end of the project during construction, suitable exclusion devices will need to be in place before February 15 of each construction year. This avoidance measure will decrease possible take of swallows and swifts, their nests, eggs, or nestlings in accordance with the MBTA.

Project Impacts

Given that the MBTA does not allow take, all migratory birds and their nests must be avoided, so no take is anticipated (or allowed). The increase in human presence, presence and noise from construction equipment (including pavers and pile drivers), will likely deter some birds from foraging, resting, or nesting in the project action area as long as the project is underway. This will result in an effective reduction in suitable habitat for these individuals, at least those which did not already avoid the area due to the high traffic volume typical of Vasco Road.

There is the possibility that avoidance and minimization measures (to avoid take) will be ineffective, in which case the USFWS and/or CDFG will be contacted. This project will result in the permanent loss of some habitat for grassland- and/or wetland/stream-dependent bird species.

Plants

Critical Habitat for Contra Costa Goldfields (*Lasthenia conjugens*)

Contra Costa goldfields (CCGF) is listed as endangered by USFWS through the FESA. Contra Costa goldfields is an HCP No-Take species. The historic range of CCGF was from the north coast of California, San Francisco Bay Area, and Sacramento Valley. Currently CCGF is limited to counties which abut the Sacramento-San Joaquin River Delta, and is most common in Napa, Solano, and Contra Costa Counties. Focused botanical surveys were performed during the peak flowering period of this species, throughout the study area. CCGF was not observed within the study area during these surveys, and therefore is not expected to occur within the project action area. Additional focused surveys are neither warranted nor recommended.

Critical habitat for CCGF was designated in 2003 by USFWS under the blanket determination of Vernal Pool Critical Habitat, which included approximately 800,000 acres within California and Oregon (Vernal Pool Critical Habitat Decision, USFWS 2006). Within the area designated critical habitat is both suitable habitat and habitat that is not suitable for the vernal pool species. Protection of designated critical habitat that contains the “primary constituent elements” is crucial for the recovery of each species. In the case of CCGF, those elements are ones necessary for germination, growth, reproduction, and dispersal.

Although CCGF Critical Habitat Unit # 7 covers 3.74 acres of the project study area, habitat within the project area does not represent the primary constituent habitat elements required to support CCGF. Vegetation communities and hydrologic regimes located within the study area and overlapping Critical Habitat Unit #7 lack the vernal hydrology and grassland characteristics suitable to support CCGF. Although areas within this portion of the study area are mapped as Alkali Wetland, these particular features are comprised of dense, homogeneous stands of saltgrass. CCGF were not observed during focused botanical surveys conducted for this project.

Avoidance and Minimization Measures

This species is not expected to occur within the project action area, therefore no avoidance or minimization measures are required.

Project Impacts

The proposed project will have no effect on critical habitat for or individuals of CCGF.

San Joaquin Spearscale (*Atriplex joaquiniana*)

San Joaquin spearscale is designated a CNPS List 1B.2 species indicating it is rare, threatened, or endangered in California and elsewhere and is fairly endangered in California. The species is covered by the HCP. San Joaquin spearscale flowers from

April to October. San Joaquin spearscale occurs on alkaline soils in chenopod scrub, meadows and seeps, and valley and foothill grassland. Fourteen populations of San Joaquin spearscale totaling more than 600 individuals were present within the project study area. Populations of San Joaquin spearscale were located in alkali grassland and alkali wetland within the study area and most often found growing in the floodplain of Brushy Creek on scalds with little vegetation present. Because San Joaquin spearscale is an annual, the number of individuals and exact locations may vary from year to year. Additional populations of San Joaquin spearscale were found outside the study area boundary.

Avoidance and Minimization Measures

San Joaquin spearscale will be avoided on the site by installing ESA fencing around any portion of the population that extends into the project action area. If avoidance is not feasible, impacts will be mitigated by implementing the following measures.

Project Impacts

The project has the potential to directly impact or extirpate potentially occurring San Joaquin spearscale individuals, populations, and/or its seed bank, as colonies are located on the periphery of the Action Area. Vehicular traffic and ground disturbance may create favorable conditions for non-native invasive weed species to become established which have the potential to out-compete this taxon. At this time, it appears that all direct impacts to San Joaquin spearscale will be avoided.

MITIGATION MEASURE BIO-01: SPEARSCALE

If impacts to spearscale cannot be avoided (to be determined via preconstruction survey), Conservation Measure 3.10, Plant Salvage when Impacts are Unavoidable, will be implemented. For annuals, such as San Joaquin spearscale, the measure requires that mature seeds be collected from all individuals for which impacts cannot be avoided. If storage is necessary, seed storage studies will be conducted to determine the best storage technique for the species. If needed, studies will be conducted on seed germinated and plants grown to maturity in garden or greenhouse to propagate larger numbers of seeds. Seed propagation methods will ensure that genetic variation is not substantially affected by propagation. Where seeds are distributed to the field, they will be located in preserves in suitable habitat to establish new populations. If seed collection methods fail (e.g., due to excessive seed predation by insects), alternative propagation techniques will be necessary. The HCP Conservancy will conduct all salvage and seed storage study operations. To ensure enough time to plan salvage operations, the County will notify the Conservancy of their schedule for removing the covered plant population.

MITIGATION MEASURES BIO-02: COVERED SPECIES/HABITAT IMPACTS:

The HCP requires that a rural road development fee and wetland fee be paid to the HCP Conservancy for total project footprint and wetland impacts, respectively. These fees will be used to purchase land or easements and enhance habitat within the core habitat areas under the jurisdiction of the HCP as mitigation for project-related effects. The rural road development fee for the Vasco Road Safety Improvement Project is greater than the standard development fee assigned by the HCP. The HCP explains the rationale behind the increased fee:

“The rural road fee will be charged for the acreage of land permanently disturbed by the rural road project. Rural roads pay a fee amount different than other types of development because these projects fragment habitat, create substantial barriers and hazards to wildlife movement, and generally have a greater per-acre impact than most other types of development projects.” (Jones & Stokes 2006:9-24)

For this project, the rural road fee is 1.5 times the regular development fee within the HCP, or \$32,193 per acre (per current fees). The following compensatory mitigation will cover losses to all special status species and habitats that occur in the project area.

Rural Road Development Fee

The project falls within Zone 2 (Natural Lands) of the HCP Zone Map. Approximately 29.498 acres of land will be permanently disturbed as a result of the project and 2.742 acres of land will be temporarily disturbed. At a rate of \$32,193 per acre for Zone 2 impacts on rural roads, the total rural road development fee for the project including temporary and permanent effects is **\$955,533.95** [29.498 acres x \$32,193/acre (permanent effects) + 2.742 acres x 2/30 x \$32,193 /acre (temporary effects)].

Wetland Fee

The total project fee for temporary and permanent wetland effects is **\$445,232.72**. That fee includes permanent effects on approximately 0.001 acres of riparian woodland/scrub (fee per acre = \$61,981), 0.045 acres of perennial wetland (fee per acre = \$84,816), 0.002 acres of seasonal wetland (fee per acre = \$183,768), 597.0 linear feet of streams 25 feet wide or less (fee per linear foot = \$505), and 80.0 linear feet of streams greater than 25 feet wide (fee per linear foot = \$761) equal to **\$366,788.98** (see permanent wetland impacts table below). The temporary wetland effects fee is **\$78,443.74** based on the following calculation: 0.111 acre of perennial wetland x 2/30 x \$84,799/acre = **\$627.41** + 82.0 linear feet stream (25' wide or less) x (\$505/linear feet stream)/ (15/2) = **\$5,521.33** + 95.0 linear feet stream (>25' wide) x \$761/linear feet stream = **\$72,295.00** (see temporary wetland impacts table below).

Therefore, the total combined mitigation fee for the project is **\$1,400,766.67**

Permanent Wetland Impacts

Habitat Type	Acres or linear feet disturbed	Cost per Acre or linear foot	Wetland Mitigation Fee*
riparian woodland/ scrub	0.001 ac	\$61,981/ac	\$79.15
perennial wetland	0.045 ac	\$84,816/ac	\$3,822.39
seasonal wetland	0.002 ac	\$183,768/ac	\$323.76
streams ≤ 25 ft wide	597 ft	\$505/ft	\$301,670.07
streams > 25 ft wide	80 ft	\$761/ft	\$60,893.60
Total			\$366,788.98

*These calculations are derived from the HCP fee calculator worksheet; any mathematical discrepancies are explained therein.

Temporary Wetland Impacts

Habitat Type	Acres or linear feet disturbed	Cost per Acre or linear foot	Years Impacted	Wetland Mitigation Fee*
perennial wetland	0.111 ac	\$84,799/ac	2	\$627.41
streams ≤ 25 ft wide	82 ft	\$505/ft	2	\$5,521.33
streams > 25 ft wide	95 ft	\$761/ft	2	\$72,295.00
Total				\$78,443.74

*These calculations are derived from the HCP fee calculator worksheet; any mathematical discrepancies are explained therein.

Comprehensive Mitigation Fee Calculation

Rural Road Development Fee	\$949,649.58
Wetland Fee	\$366,788.98
Temporary Impact Rural Road Fee	\$5,884.37
Temporary Impact Wetland Fee	\$78,443.74
Total Mitigation Fee	\$1,400,766.67

These project-specific mitigation fees will fund implementation of the applicable conservation measures defined in Chapter 5 of the HCP. The application of these fees will purchase habitat and fund habitat improvements and management activities. Specific conservation measures that will mitigate losses for this project include Conservation Measures 2.2 (Manage Wetlands and Ponds), 2.3 (Restore Wetlands and Create Ponds), 2.4 (Manage Grassland), and 2.5 (Manage Natural Burrow Availability and Prey Base) of the HCP for aquatic and upland species and Land Cover Types.

Potential project impacts will have a less than significant impact with implementation of the applicable HCP Conservation Measures, species-specific avoidance and minimization measures, and payment of the HCP rural road and wetland fees.

- 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 Game or U.S. Fish and Wildlife Service?*

Native Grassland

Three of the seven native grassland alliances the HCP addresses are found in the project action area. All native grassland types are considered rare in California. These HCP uncommon vegetation types include purple needlegrass grassland, blue wildrye grassland, and alkali grassland. Within the study area, purple needlegrass grassland Land Cover Type is located in scattered location adjacent to Vasco Road, mostly on thin soils. It is located in areas that have been previously disturbed and is presumed to have been planted as a part of the revegetation effort after construction of Vasco Road. There are 1.389 acres of purple needlegrass alliance grassland in the project action area.

Within the study area, blue wildrye grassland Land Cover Type is located in patches adjacent to Vasco Road, mostly on the west side of the road on east facing slopes. It is located in areas that have been previously disturbed and is presumed to have been planted as a part of the revegetation effort after construction of Vasco Road. There are 0.051 acres of blue wildrye alliance grassland in the project action area.

Within the study area alkali grassland occurs both off and on Pescadero soils in valley bottomlands. There are 0.889 acres of alkali grassland in the project action area.

Avoidance and Minimization Measures

Conservation Measure 1.14, design requirements for covered roads outside the UDA will be followed including project siting requirements, design requirements for wildlife movement and impact minimization, construction and post-construction requirements

Project Impacts

This project will permanently impact 1.440 acres of native grassland (the two alliances combined) and 0.889 acres of alkali grassland. No native grassland will be temporarily affected.

Uncommon Landscape Features

Uncommon landscape features listed in the HCP that must be identified and are present in the study area include rock outcrops and scalds. There are 0.174 acres of rock outcrop habitat and 0.004 acres of scald in the project action area.

Avoidance and Minimization Measures

Conservation Measure 1.14, design requirements for covered roads outside the UDA, are required for this project and will benefit uncommon Land Cover Types through several measures, including the following; siting planned roads in the least environmentally

sensitive location feasible, minimizing the footprint of disturbance to the maximum extent practicable, and placing staging, storage, and fueling areas on disturbed areas or ruderal or non-sensitive non-native grassland cover types, when possible .

Project Impacts

Approximately 0.174 acres of rock outcrop habitat and 0.004 acres of scald will be permanently impacted by this project. There will be no temporary impacts to these habitats.

Riparian Woodland/Scrub

As described by the HCP, riparian woodland/scrub is characterized by phreatophytic woody vegetation associated with streams and permanent water sources. Riparian woodland is dominated by trees and contains an understory of shrubs and forbs. Riparian scrub is dominated by young trees and shrubs, typically representing an early successional stage of riparian woodland.

Within the study area, riparian woodland/scrub occurs along Brushy Creek and the tributary of Brushy Creek. Riparian woodland/scrub within the study area is characterized by an overstory of red willow. Other tree and shrub species present in riparian woodland/scrub include Gooding's willow, arroyo willow, sandbar willow, and Fremont cottonwood. The understory included herbaceous species such as rabbitsfoot grass, saltgrass, Baltic rush, water cress, and swamp grass.

Botanical surveys found this natural community on Brushy Creek and its tributary on the south end of the study area. Within the project action area, 0.001 acres of riparian woodland/scrub occur. This habitat is located on the southwest end of the project, on the tributary to Brushy Creek and is outside of the ordinary high water line, so is not federally jurisdictional.

Avoidance and Minimization Measures

Landscape-level conservation measures (HCP Section 6.4.1) that will address this habitat type include HCP Conservation Measure 1.10, Maintain Hydrologic Conditions and Minimize Erosion, which includes applying C.3 water quality standards, and Conservation Measure 1.14, Design Requirements for Covered Roads Outside the UDA, which will help to minimize environmental impacts roads can cause. The Vasco Road project is specifically required to follow all of the road conservation measures listed in the HCP, including siting requirements, construction actions, and post-construction actions.

Natural community level conservation measures (HCP Section 6.4.2) this project incorporates include Conservation Measure 2.12, Wetland, Pond, and Stream Avoidance and Minimization. All the measures listed therein must be followed. These include:

- All wetlands, ponds, streams, and riparian woodland/scrub to be avoided by covered activities will be temporarily staked (or fenced) in the field by a qualified biologist.
- Buffer zones will be established where feasible between the aquatic resource and construction activities

- Fencing will be erected between the outer edge of the buffer zone and the project area. Fencing for permanent impacts should be permanent, fencing for short-term impacts should be removed after the activity is completed.
- Personnel conducting ground-disturbing activities within or adjacent to the buffer zone of wetlands, ponds, streams, or riparian woodland/scrub will be trained by a qualified biologist.
- Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.
- No construction or maintenance vehicles will be refueled within 200 feet of wetlands, ponds, streams, or riparian woodland/scrub unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.
- Seed mixtures applied for erosion control will not contain invasive non-native species, and will be composed of native species or sterile non-native species.
- Where feasible, stream crossings will be located in stream segments without riparian vegetation and bridge footings will be built outside the stream banks.
- Herbicide will not be applied within 100 feet of wetlands, ponds, streams, or riparian woodland/scrub.
- Post-construction, all invasive, non-native vegetation within the right-of-way, such as yellow star-thistle (*Centaurea solstitialis*), will be controlled to prevent their spread into adjacent habitat.
- No soil, vegetation, or construction debris will be stockpiled in streambeds or on their banks.
- Temporary stream diversions will use sandbags or other inert materials to minimize impacts to aquatic species.
- In order to minimize sediment transport off-site, silt fence or similar material will be placed at all down-gradient limits of work.

The special avoidance and minimization measures are required because riparian woodland/scrub is a sensitive Land Cover Type, and the measures are essential to some of the covered species occurring on site (e.g., amphibians).

Project Impacts

This project will permanently impact 0.001 acres of riparian woodland/scrub habitat. There will be no temporary impacts to this habitat type.

Mitigation for impacts to riparian habitat or other sensitive natural communities

See comprehensive mitigation discussion in a) above

- 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 wetlands, etc.), through direct removal, filling, hydrological interruption or other means?*

Perennial Wetland

As described by the HCP, perennial (permanent) wetlands are characterized by a year-round water source. They are typically dominated by erect, rooted, herbaceous hydrophytic plant species adapted to growing in conditions of prolonged inundation. Four perennial wetland alliances were identified in the project area: Narrow-leaved Cattail Alliance, Iris-leaved Rush Alliance, Prairie Bulrush Alliance, and Common Tule Alliance. Within the study area, the narrow-leaved cattail alliance is present along the borders and within the channel of Brushy Creek. Iris-leaved rush occurs along the floodplain of the unnamed tributary of Brushy Creek. The prairie bulrush alliance occupies the margins of portions of Brushy Creek. It appears to occupy less wet sites and is presumed to be an early seral association. There are 0.156 acres of perennial wetland in the project action area.

Avoidance and Minimization Measures

Natural community level measures (HCP Section 6.4.2) this project incorporates include Conservation Measure 2.12, Wetland, Pond, and Stream Avoidance and Minimization. All the measures listed therein must be followed. They include:

- All wetlands, ponds, streams, and riparian woodland/scrub to be avoided by covered activities will be temporarily staked (or fenced) in the field by a qualified biologist.
- Buffer zones will be established where feasible between the aquatic resource and construction activities
- Fencing will be erected between the outer edge of the buffer zone and the project area. Fencing for permanent impacts should be permanent, fencing for short-term impacts should be removed after the activity is completed.
- Personnel conducting ground-disturbing activities within or adjacent to the buffer zone of wetlands, ponds, streams, or riparian woodland/scrub will be trained by a qualified biologist.
- Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.
- No construction or maintenance vehicles will be refueled within 200 feet of wetlands, ponds, streams, or riparian woodland/scrub unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.
- Seed mixtures applied for erosion control will not contain invasive non-native species, and will be composed of native species or sterile non-native species.
- Where feasible, stream crossings will be located in stream segments without riparian vegetation and bridge footings will be built outside the stream banks.

- Herbicide will not be applied within 100 feet of wetlands, ponds, streams, or riparian woodland/scrub.
- Post-construction, all invasive, non-native vegetation within the right-of-way, such as yellow star-thistle (*Centaurea solstitialis*), will be controlled to prevent their spread into adjacent habitat.
- No soil, vegetation, or construction debris will be stockpiled in streambeds or on their banks.
- Temporary stream diversions will use sandbags or other inert materials to minimize impacts to aquatic species.
- In order to minimize sediment transport off-site, silt fence or similar material will be placed at all down-gradient limits of work.

These special avoidance and minimization measures are required because wetlands are a sensitive Land Cover Type, and they are essential to some of the covered species that occur on site (e.g., amphibians). These measures help minimize direct and indirect impacts to wetlands.

Project Impacts

This project will directly and permanently impact 0.045 acres of perennial wetland habitat. This project will temporarily impact 0.111 acres of perennial wetland habitat. Total impact area for perennial wetlands is 0.156 acres within the project action area.

Seasonal Wetland

As described by the HCP, seasonal wetlands are freshwater wetlands that support ponded or saturated soil conditions during winter and spring and are dry through the summer and fall until the first substantial rainfall. Vegetation is characterized by erect, rooted, herbaceous hydrophytes excluding mosses and lichens and is present for most of the growing season in most years. Within the study area, seasonal wetlands are distributed in depressions in grassland, in flat low areas at the base of hillsides, and in drainages. There are 0.002 acres of seasonal wetlands in the project action area.

Avoidance and Minimization Measures

Natural community level measures (HCP Section 6.4.2) this project incorporates include Conservation Measure 2.12, Wetland, Pond, and Stream Avoidance and Minimization. All the measures listed therein must be followed. Among those measures are the following:

- All wetlands, ponds, streams, and riparian woodland/scrub to be avoided by covered activities will be temporarily staked (or fenced) in the field by a qualified biologist.
- Buffer zones will be established where feasible between the aquatic resource and construction activities

- Fencing will be erected between the outer edge of the buffer zone and the project area. Fencing for permanent impacts should be permanent, fencing for short-term impacts should be removed after the activity is completed.
- Personnel conducting ground-disturbing activities within or adjacent to the buffer zone of wetlands, ponds, streams, or riparian woodland/scrub will be trained by a qualified biologist.
- Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.
- No construction or maintenance vehicles will be refueled within 200 feet of wetlands, ponds, streams, or riparian woodland/scrub unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.
- Seed mixtures applied for erosion control will not contain invasive non-native species, and will be composed of native species or sterile non-native species.
- Where feasible, stream crossings will be located in stream segments without riparian vegetation and bridge footings will be built outside the stream banks.
- Herbicide will not be applied within 100 feet of wetlands, ponds, streams, or riparian woodland/scrub.
- Post-construction, all invasive, non-native vegetation within the right-of-way, such as yellow star-thistle (*Centaurea solstitialis*), will be controlled to prevent their spread into adjacent habitat.
- No soil, vegetation, or construction debris will be stockpiled in streambeds or on their banks.
- Temporary stream diversions will use sandbags or other inert materials to minimize impacts to aquatic species.
- In order to minimize sediment transport off-site, silt fence or similar material will be placed at all down-gradient limits of work.

The special avoidance and minimization measures are required because wetlands are a particularly sensitive Land Cover Type, and they are essential to some of the covered species (e.g., amphibians).

Project Impacts

This project will directly and permanently impact 0.002 acres of seasonal wetland habitat within the Action Area. There will be no seasonal wetlands temporarily affected by this project.

Mitigation for Impacts to Wetlands

See comprehensive mitigation discussion in a) above

- 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?*

The HCP requires that the post-project condition not increase the number of wildlife mortalities beyond the pre-project condition. In order to ensure that this requirement can be met, the project includes several design features to ensure no increase in mortality results for the roadway safety improvements. With the following measures incorporated into the project design, wildlife permeability under Vasco Road will be improved beyond the current condition. These design features are expected to substantially reduce wildlife mortality, improve genetic flow and reduce habitat fragmentation all of which will improve the viability of wildlife species populations.

Specific to wildlife crossing, the HCP requires large wildlife crossings (minimum of 5 feet in diameter) be spaced at least every mile and small mammal crossings (18 to 48 inches in diameter) be spaced at least every 1000 feet. Large wildlife crossings are intended for medium and large mammals, and the HCP defines San Joaquin kit fox as a medium-size mammal. The HCP also requires that the latest science direct design where it differs from specific HCP requirements. Based on the results of the wildlife movement study and the HCP requirement to use the latest science, the project will install up to six 5 foot square undercrossings and seventeen 20 to 24 inch diameter undercrossings along the 2.5 mile alignment. Spacing and sizing will be dependent on distance from existing crossings and constructability, but small crossings are intended to be spaced approximately every 600 feet and large crossings roughly every 1600 feet. All new small wildlife crossings will include overhead grating in the median and on both shoulders when safety is not an issue. Median barriers will incorporate scuppers and breaks following Caltrans standard design. Scuppers for small wildlife will be incorporated every 300 feet where they do not create a safety hazard by allowing drainage runoff to stream across traffic lane. Breaks (i.e., full height openings) in the median will occur every 1000 feet in a like manner.

Fencing will be installed along the entire length of the project on both sides of the roadway. The fencing will connect to each existing and new undercrossing and will extend a minimum of 164 feet beyond the outermost culvert. Earthen jump outs that allow trapped wildlife to escape the roadway will be installed on both sides of the road abutting the wildlife fencing. Jump-outs will be spaced approximately every 300 feet for small animals and every 1000 feet for large animals, except where retaining walls of other physical barriers preclude placement. Barriers to cattle crossing will be included in all four foot or larger culverts.

In addition to the new wildlife crossing features that will be installed, the project will also include modifications to five existing culverts to make them more wildlife friendly. Examples of this type of modification include recontouring areas down slope of the down gradient ends of culverts to improve access into the crossing entrance.

MITIGATION MEASURES BIO-03: WILDLIFE MIGRATION IMPACTS

Because the effectiveness of road crossings for wildlife is an active area of research, and frequent advances in design are expected over the 30 year life of the HCP incidental take permit, the permeability component of the project includes performance of a post-construction study to determine optimal crossing spacing. The study will be conducted in three consecutive breeding seasons in order to ensure a large enough data set. The results of the study are intended to inform adequate crossing spacing by species on future projects.

In order to ensure that the newly installed permeability features are performing optimally, vegetation, fencing, and grating maintenance will occur three times a year: 1) late December to early January (mid-way through the California tiger salamander migration), 2) in April/May after most vegetation has grown significantly, 3) mid to late October to ensure that all components of the permeability design are in good repair prior to the tiger salamander migration to breeding habitat. Maintenance will include repair or replacement of any portion of fencing that is damaged, clearing of all debris from undercrossing entrances, clearing debris from and repair of grating. Additionally, any damage to fencing arising from car collisions will be repaired immediately.

The improvements in road permeability for wildlife that are proposed for this project have the potential to significantly benefit numerous species and, consequently, the ecosystem at large. In particular, the number of California tiger salamanders and California red-legged frogs killed on the road each year may significantly decrease, and the ability of their populations on either side of the road to mix may significantly improve. This benefits not only population stability (lower death rate), but also the genetic variability of the species (less isolated populations are less likely to suffer inbreeding depression than are more isolated populations).

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

One native tree (a willow) will need to be removed in order to construct the bridge expansion at the southern crossing of Brushy Creek. Tree removal by the Contra Costa County Public Works Department is not subject to the County Tree Ordinance; therefore, the project will have no impact as it does not conflict with the local tree ordinance.

- 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?*

The HCP/NCCP provides specific avoidance and mitigation measures for direct, indirect, and cumulative impacts to covered special-status species and habitats and jurisdictional wetlands and other waters in eastern Contra Costa County. The project is listed as a covered activity in Chapter 2.3 of the HCP/NCCP. CCCPWD will implement the applicable siting, design, and construction requirements and avoidance and minimization measures, and will pay the applicable mitigation fees as summarized in this section. Therefore, the project would have no impact as it will not conflict with the provisions of the HCP/NCCP.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource 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?	☐	☐	☒	☐

Environmental Setting

The project area generally consists of flat to rolling, hilly topography dominated by grasslands ranging in elevation from approximately 150 to 500 feet. Brushy Creek and an unnamed tributary meander through much of the study area, with Brushy Creek crossing under Vasco Road in two locations. The bedrock in the project is entirely Late Cretaceous (70-65 million years old) Panoche Formation marine shale and sandstone. The Panoche Formation has high paleontological sensitivity. The alluvial sedimentary deposits along Brushy Creek are Holocene in age (10,000 years old or younger) and are composed of loosely consolidated gravels, sands, silts, and clay.

The immediate project area has been subject to extensive landform modification, including extensive cut and fill for the construction of Vasco Road which occurred in 1995 and 1996. During construction of the roadway, no unknown archaeological resources were located. The Vasco Caves complex is a previously recorded archaeological site that consists of a large district of historic rock wall features, caves, rock shelters, and some of the most significant prehistoric rock art in California. The Vasco Caves complex is located 2,100 feet from the project. The site is still used for ongoing cultural activities by Native Americans. In addition to Vasco Caves there are six other previously recorded archaeological sites located within a mile of the project including a prehistoric milling feature, and historic homestead sites.

Information for the proposed Project compiled in the following section was gathered from the cultural resources technical report prepared by Condor Country Consulting, Inc., as well as Native American consultations conducted by Condor Country Consulting, Inc. Condor Country Consulting, Inc. conducted an intensive records search, coordinated with the Native American Heritage Commission, local historic societies, and Native American individuals and organizations, and conducted a pedestrian survey of the project's area of potential effect.

Letters were sent to the Northwest Information Center (NWIC) requesting the preparation of a records search of the California Historical Resources Information System (CHRIS) for the project area. The record search at the NWIC that was conducted did not show any known cultural resources within the project area. The records search included an examination of the official records and maps for archaeological sites and surveys in Contra Costa and Alameda Counties, as well as a review of the National Register of Historic Places, the California Register of Historical Resources, the California Inventory of Historic Resources, California State Landmarks, California Points of Historical Interest, the Directory of Properties in the Historical Resources Inventory (Office of Historic Preservation 2005), Caltrans Local Bridge Surveys, and secondary sources pertaining to state and local prehistory and history. Survey and consultation with other interested parties failed to indicate the presence of any indicators of historical resources or unique archaeological resources within the project's area of potential effect.

In all, seven cultural resources have been recorded adjacent to the proposed Project. None of the recorded sites are historical-period built environment resources (all historic structures are no longer in existence therefore they are considered an archeological resource rather than a historic resource) and all are located outside of areas of anticipated impact.

Potential Environmental Effects

- a) *Would the project cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?*

The proposed project would not cause a substantial adverse change to the significance of any known historical resource. Mechanisms that would cause damage, destruction, or alteration of historic structures includes project-related demolition, damage, or alteration of historic structures or their immediate surroundings that could impair the significance of an historic resource or adversely alter those physical characteristics of an historical resource that convey its historical significance. While several potentially eligible historical resources have been identified within project study area, none are located within any areas of impact from planned project activities. Impacts would be less than significant.

- b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

Condor Country Consulting, Inc. conducted an intensive records search, coordinated with the Native American Heritage Commission, local historic societies, and Native American individuals and organizations, and conducted a pedestrian survey of the project's area of potential effect. The field survey and consultation with other interested parties failed to indicate the presence of any indicators of historical resources or unique archaeological resources within the project's area of potential effect. The ultimate conclusion drawn by Condor County Consulting is that there are no historical or unique archaeological resources

within the area of potential effect that require further evaluation, and there is no need for further monitoring, testing, and/or mitigation. Nevertheless, there is always the potential to unearth cultural resources during a construction project; therefore project contract specifications will require construction crews to stop work in the event that subsurface resources are encountered during construction and to notify the CCCP WD immediately. CCCPWD will then hire a qualified archaeologist to evaluate the finding and provide further direction. The Vasco Caves site, a unique archaeological resource, is located well outside of the study area, over 2100 feet from the nearest project component; therefore indirect effects are not expected. Nevertheless, installation of a permanent 5-foot high chain link fence the length of the project on both sides of the roadway is a component of the project design in order to direct wildlife to existing and proposed undercrossings. That fencing will have the added benefit of discouraging trespass at the Vasco Caves site. The addition of fencing (including entrance gates) will be beneficial to the management of this sensitive archaeological resource and is anticipated to address comments made by East Bay Regional Park District staff during project development. Potential project impacts of the project on archaeological resources will be less than significant.

- c) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

The likelihood of encountering a significant paleontological discovery at the project site is considered unlikely, however the Panoche Formation has been recognized as a sensitive geologic deposit, and is considered by paleontologists to be an area of high sensitivity. There is the potential to have a significant effect on paleontological resources within this geologic formation. Implementation of mitigation measure CUL-01 would reduce the impacts to less than significant.

Mitigation Measure CUL-01: A Paleontological Resources Monitoring and Mitigation Plan and has been developed for this project, and will be implemented during ground-disturbing activities that impact the paleontologically sensitive Panoche Formation. A qualified professional paleontologist (Conformable Impact Mitigation Guidelines Committee 1995) shall be retained to supervise paleontological monitoring of ground-disturbance within the Panoche Formation for paleontological resources (fossils). The paleontological monitor shall be authorized to briefly redirect and/or halt construction activities at the location of an isolated discovery, to review the potential paleontological material, and to protect the resource while it is evaluated under the criteria set forth in Section 15064.5 of the CEQA Guidelines. Monitoring shall continue at the project area until the supervising qualified paleontologist determines that no native sediments are present or that significant paleontological resources are not likely to be discovered.

Should a significant paleontological resource be discovered during monitoring by an on-site qualified paleontological monitor, then;

- excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by the on-site qualified paleontologist
- The discovery shall be removed from the site and documented as needed, the potential resource evaluated, and the significance of the find shall be assessed under the criteria set forth in Section 15064.5 of the CEQA Guidelines.
- The on-site qualified paleontologist shall determine if any finds are isolated in nature, or part of an articulated specimen or aggregate of specimens (i.e. a bone bed). If not isolated and determined significant, the paleontologist shall work with the CCCPWD to temporarily avoid the find until the Paleontological Mitigation Plan can be implemented.
- If the CCCPWD determines that avoidance is not feasible, the paleontologist shall implement the project specific Paleontological Mitigation Plan which will assure that the find is sufficiently documented to be of scientific value, a report prepared, and fossils are curated in a recognized paleontological repository, such as the University of California, Museum of Paleontology.

A portion of the project is within Quaternary alluvium, with low sensitivity for paleontological resources. Nevertheless, significant fossil discoveries can be made even in areas of supposed low sensitivity, and project excavation activities could have a deleterious effect on such resources. In the event a paleontological resource is encountered within the Quaternary alluvium, Mitigation Measure CUL-02 would be required, and would reduce the impacts to less than significant.

Mitigation Measure CUL-02: Portions of the project area outside of the exposed Panoche Formation will not be subject to mitigation Measure CUL-01. For these areas, in the event of an unanticipated paleontological discovery during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist per current Society of Vertebrate Paleontology standards. Should the find be determined significant, the Paleontological Mitigation Plan outlined in Mitigation Measure CUL-01 shall be implemented for this specific location.

Significance after Mitigation: Less than Significant.

- d) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

There is no indication that any area in the vicinity of the project alignment has been used for burial purposes in the recent or distant past. Thus, it is unlikely that human remains would be encountered during project construction. However, in the event of the discovery of any human remains, including those interred outside of formal cemeteries, during project construction, CCCPWD shall immediately halt all work in the vicinity of the discovery, contact the Contra Costa County Coroner to evaluate the remains, and follow the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, CCCPWD shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease until appropriate arrangements are made. The Native American Heritage Commission shall assign a Most Likely Descendant. Within 24 hours of being notified this person may, with the permission of the property owner, inspect the remains. The MLD will recommend means for treating and disposing with appropriate dignity, the human remains and associated items to CCCPWD. Disposition of all burials and items of cultural patrimony will be negotiated following discovery of human remains.

VI. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

The project area generally consists of flat to rolling, hilly topography dominated by grasslands ranging in elevation from approximately 150 to 500 feet. Brushy Creek and an unnamed tributary meander through much of the study area, with Brushy Creek crossing under Vasco Road in two locations. The bedrock in the project is entirely Late Cretaceous (70-65 million years old) Panoche Formation marine shale and sandstone. The alluvial sedimentary deposits along Brushy Creek are Holocene in age (10,000 years old) and are composed of loosely consolidated gravels, sands, silts, and clay. A total of eight soil mapping units are located

within the project alignment: Altamont clay, 15 to 30% slopes; Altamont clay, moderately deep, 30 to 45% slopes, Altamont-Fontana Complex, 30 to 50% slopes; Altamont-Fontana Complex, 50 to 75% slopes; Fontana-Altamont Complex; Pescadero clay loam; Rincon clay loam, 0 to 2% slopes; and Rincon clay loam, 0 to 2% slopes (USDA 1966 & 1977). The Altamont Series consists of well-drained soils underlain by shale and soft, fine-grained sandstone. These soils occur on foothills north and east of Mount Diablo. The Fontana Series consists of well-drained soils underlain by calcareous, fine-grained sandstone. These soils are found in uplands. The Pescadero Series consists of poorly drained soils that formed in alluvium from sedimentary rock. These soils are in small inland valleys and on rims of basins. Much of the soil within and immediately adjacent to the Vasco Road right of way is not native due to the ground disturbance and import of fill during road construction.

Potential Environmental Effects

a) *Would the project 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?*

The nearest fault to the project site is the Coast Ranges-Sierran Block (CSB) Boundary Seismic Zone located less than 0.62 mile to the east of the project. No active fault traces cross the proposed project alignment. There are three inactive bedrock faults trending northwest/southeast and crossing the roadway alignment. These faults have not been placed within the limits of the Alquist-Priolo Earthquake Fault Zones. In addition, these faults are not considered seismogenic sources capable of generating their own earthquakes. However, sympathetic movement on the mapped inactive faults in response to seismic activity on one of the major earthquake faults in the Bay Area cannot be ruled out, but the risk is relatively low. The risk of primary surface rupture or deformation within the project area is considered low. Potential project impacts are less than significant.

- ii) *Strong seismic ground shaking?*

The project site is located in a seismically active region. Several northwest/southeast trending fault zones exist near the project vicinity which have a history of seismic activities. However, given that there are no active faults crossing the proposed project alignment, the project is not expected to expose people to substantial adverse effects involving strong seismic ground shaking. Potential project impacts are less than significant.

iii) *Seismic-related ground failure, including liquefaction?*

There are no recorded signs of seismically induced ground failures such as liquefaction or lateral spreading as a result of previous earthquakes in Northern California within 8 miles of the site. The potential for liquefaction is considered generally low. Potential project impacts are less than significant.

iv) *Landslides?*

There are two existing landslides in the project area. Both slides appear dormant and do not show signs on the existing roadway of cracking, offset, or displacement. Therefore the slides appear stable. Project design engineers are taking these landslides and the potential for future landslides into account within the project design. Potential project impacts are less than significant.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Project construction will not result in substantial soil erosion or the loss of topsoil. Grading and excavation associated with the safety improvement project will result in a change in topography and temporarily increase the exposure of soils to wind erosion. This temporary impact is not considered a significant impact. Adherence to standard dust control and erosion control practices, including, but not limited to, general watering of exposed areas and/or use of chemical stabilizers will minimize impacts. In order to minimize potential erosion due to general watering during construction activities, contract specifications will require the contractor to implement appropriate watering levels and duration. These measures will be incorporated into the construction contract. All areas disturbed due to the project will be seeded with a mix including native grasses and wildflowers upon completion of the project in order to stabilize exposed soil. Potential project impacts are less than significant.

c) *Would the project 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?*

In general, the site geology is characterized as Upper Cretaceous age (65 to about 80 million years ago) Panoche Formation sedimentary marine bedrock. In the project area, there are two distinct geologic units within the formation: Micaceous Clay Shale (upper) and Sandstone (lower). Neither of these geologic units are expected to become unstable as a result of the project, nor are they expected to result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. The project geotechnical engineer and design engineer have taken site geology into account in the project design. Potential project impacts are less than significant.

- d) *Would the project 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?*

The alluvial clays, clayey fill, and weathered shale bedrock present at the site are considered to have a medium to very high expansion potential. The weathered shale sandstone and sandy fill present at the site are considered to have low expansion potential. The project geotechnical engineer and design engineer have taken these expansive soil conditions into account in the project design. Potential project impacts are less than significant.

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

Septic tanks and alternative wastewater disposal systems are not part of the project. No impact will occur and no mitigation is needed.

VII. HAZARDS AND HAZARDOUS MATERIALS

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

A material is considered hazardous if it appears on a list of hazardous materials prepared by a Federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Section 66261.10, Title 22 of the California Code of Regulations (CCR) as follows:

A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosivity, and reactivity. CCR, Title 22, Sections 66261.20-66261.24 define the aforementioned properties. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies. Under Government Code Section 65962.5, the California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substance sites. This list, referred to as the "Cortese List," includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination.

Environmental Setting

Historically the project area has been open land used almost exclusively for livestock grazing purposes. Aerial photographs dating back to 1939 confirm that the land has not had any developed use. The first aerial photography evidence of a land use in the vicinity of the project other than grazing (i.e., wind energy generation) occurs in a 1993 aerial photo.

Potential Environmental Effects

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

Vasco Road is heavily used by trucks that likely transport hazardous materials. The project would not result in an increase of traffic as the project is not capacity increasing and is intended to provide a median barrier to improve roadway safety. Installation of the median barrier is expected to result in fewer collisions. The project has the potential to release hazardous materials as a result of accidental petroleum spills from construction equipment operation during project construction. The project specifications will require the contractor to implement BMPs to address accidental spills of deleterious materials as well as standard construction BMPs such as placement of stationary equipment over drip pans and regular maintenance of vehicles to minimize potential impacts. Potential project impacts will be less than significant.

- b) *Would the project 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?*

The project has the potential to release hazardous materials as a result of accidental petroleum spills from construction equipment operation during project construction. The project specifications will require the contractor to implement BMPs to address accidental spills of deleterious materials as well as standard construction BMPs such as placement of

stationary equipment over drip pans and regular maintenance of vehicles to minimize potential impacts. Potential project impacts will be less than significant.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?*

There are no existing or proposed schools within one quarter mile of the project area. Therefore, the project will have no impact.

- d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

A Phase I Environmental Site Assessment was conducted for the project by Nichols Consulting Engineers. Two high pressure petroleum pipelines are present at the far southern end of the project site. The two pipelines pass under the roadway corridor in a northwest to southeast trend. One pipeline is a Tosco/Conoco-Phillips 16-inch petroleum pipeline and the other is a Texaco 20-inch petroleum pipeline, both owned by Chevron Corporation and used to transport gasoline and diesel. No evidence of product leaks or spills associated with the pipelines was discovered during the course of the Phase I ESA. In addition, no excavation will occur in the vicinity of the petroleum pipelines. Contract plans clearly identify the locations of the petroleum pipelines. No other potential sources of contamination were identified during the course of the Phase I ESA. Therefore, the impact is considered less than significant.

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

The project area is located within two miles of the Byron Airport and within the Byron Airport influence area (Contra Costa County Airport Land Use Commission 2000). The project includes the construction of safety improvements along an existing roadway. The project would not result in a safety hazard for people residing or working in the project area. Therefore, project impacts are less than significant.

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

The project is not located in the vicinity of a private airstrip. Therefore, the project will have no impact.

- g) *Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?*

Construction of the proposed project will not require the closure of Vasco Road in the project area – traffic flow will be maintained in both directions throughout construction. Traffic control measures around the work area will minimize the potential for accidents and allow through traffic for emergency vehicles. Project specifications for the project

will require installation of sufficient warning signs regarding the construction and associated work hours. Potential project impacts will be less than significant.

- h) *Would the project 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?*

The project does not consist of development of structures within or adjacent to wildlands that would expose people or structures to a significant loss, injury, or death from wildland fires as the purpose of the project is to provide safety improvements of an existing roadway. The project will have no impact.

VIII. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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 as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

The project is located near Brushy Creek which runs roughly parallel to the roadway. The elevation of Brushy Creek is 160 feet near the north end of the project and the watershed rises to elevation 1700 feet. Other small drainages that cross Vasco Road lead from the adjacent hillsides and drain directly to Brushy Creek. The entire watershed is hilly, generally non-developed land, primarily used as range land. The only substantive development in the area consists of electricity-generating windmill, power lines, property access roads (many gravel and/or dirt) and Vasco Road itself. Portions of the safety improvement project are mapped in the 100-floodplain (FEMA 2009; Community Panel 0525F, Map Number 06013C0525F).

Hydrology in the project area corridor has been affected by construction of the realigned Vasco Road. There are many existing pavement and cross culvert storm drains that collect runoff from the pavement or upslope areas and deliver it to downstream waterways. The existing drains typically combine the runoff from both the on-pavement and off-pavement areas.

Potential Environmental Effects

a) Would the project violate any water quality standards or waste discharge requirements?

Water quality objectives will be met through adherence to construction provisions, precautions, and stipulations as described in the National Pollution Discharge Elimination System (NPDES) permit that will be obtained under the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Order No. 99-08 DWQ). In accordance with the provisions of the General Permit, the CCCPWD will require the contractor to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) to identify BMPs that will reduce or minimize discharge of pollutants from construction activities.

In addition, CCCPWD will comply with Provision "C.3" of the NPDES permit which governs discharges from municipal storm drain systems. The C.3 provision requires installation of stormwater treatment facilities when a project results in the construction of more than 10,000 square feet of impervious surface. C.3 compliance to treat and control runoff from increased impervious surface will be achieved by erosion control devices, longitudinal "flow through planters". The flow through planters will be approximately 18" wide, 24" deep trenches that will be backfilled with permeable material underlain by a perforated pipe. The permeable material will be covered with soil and native grasses will be planted to help retain and filter the runoff.

CCCPWD will also obtain permits from the Army Corps of Engineers (Section 404 of the Clean Water Act) and Regional Water Quality Control Board (Section 401 of the Clean Water Act) for fill of jurisdictional waters (for culvert extensions and bank stabilization/temporary water diversion at Brushy Creek), and from the California Department of Fish and Game (Section 1600 of the California Fish and Game Code) for work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel (bank stabilization/temporary water diversion at Brushy Creek).

The project will not violate water quality or waste discharge requirements with compliance of the water quality regulations and implementation of permit conditions and applicable BMPs to minimize impacts to water quality. Therefore, potential project impacts will be less than significant.

- b) *Would the project 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)?*

The project would not involve any withdrawals from an aquifer or groundwater table. Therefore, the project will have no impact.

- c) *Would the project 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?*

Project safety improvements will not substantially alter the watershed areas or runoff rates for individual cross culverts or downstream facilities. While the median barrier will intercept pavement flows, these flows will be positively drained by new drainage facilities which will drain to the same discharge points as the existing drainage facilities. The associated road widening will change some existing pervious areas to impervious areas. However, compared to the size of the off-site areas, the increased runoff rate at each cross culvert is negligible compared to the capacity of the cross culvert. In addition, stormwater control basins in the form of flow through planters will be constructed to minimize the potential increase to peak runoff.

- d) *Would the project 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 that would result in flooding on- or off-site?*

The project will increase impervious surface area as a result of the safety improvements, but will not result in on- or off-site flooding, particularly with installation of longitudinal “flow through planters” to comply with the C.3 requirements. Therefore, potential project impacts will be less than significant.

- e) *Would the project 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?*

The project will increase impervious surface area as a result of the safety improvements, but will not result in additional sources of polluted runoff with installation of longitudinal “flow through planters” to comply with the C.3 requirement of the NPDES permit as described in item a above. Therefore, the project will have a less than significant impact.

- f) *Would the project otherwise substantially degrade water quality?*

No additional impacts other than those discussed under Items a, c and e above are anticipated. Therefore, the project will have a less than significant impact.

- g) *Would the project 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?*

The project does not include the construction of housing. Therefore, the project will have no impact.

- h) *Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?*

The project crosses Brushy Creek twice. At both of these locations the existing bridges will require widening; however, no longitudinal encroachments in the floodplain will occur. At the southern crossing of Brushy Creek the water surface elevation following construction is expected to rise no more than 0.3 feet higher than it currently does during 100 year flood conditions. At the northern crossing of Brushy Creek no rise in water surface elevations is expected post-construction during 100 year flood conditions. Therefore, project impacts will be less than significant.

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

The project does not include the construction or alteration of any levees or dams and would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam. Therefore, the project will have no impact.

- j) *Would the project be subject to inundation by seiche, tsunami or mudflow?*

The project is not in an area subject to seiche, tsunami, or mudflow. Therefore, the project will have no impact.

IX. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

Environmental Setting

The Contra Costa County General Plan 2005-2020 dictates land use in the project area. The applicable transportation plan for the project is the Transportation 2030 Plan for the San Francisco Bay Area (Metropolitan Transportation Commission 2005).

The project area is located within the HCP/ NCCP (JSA 2006). The HCP/ NCCP provides regional conservation and development guidelines to protect natural resources for "covered activities." This project is listed as a covered activity in the HCP/ NCCP (JSA 2006).

Potential Environmental Effects

a) *Would the project physically divide an established community?*

The project involves construction of safety improvements on an existing segment of Vasco Road. The project will not divide an established community. No impact will occur.

b) *Would the project 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?*

The project is consistent with the County General Plan Transportation and Circulation Elements, Roadway and Transit Goals #5-A (To provide a safe, efficient and balanced transportation system), Policy #5-9 (Existing circulation facilities shall be improved and maintained by eliminating structural and geometric design deficiencies), and Policy #5-17 (The design and the scheduling of improvements to arterials and collectors shall give priority to safety over other factors including capacity) (Contra Costa County 2005). No impact will occur and no mitigation is needed.

- c) *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

The project will comply with the requirements of the HCP/ NCCP (JSA 2006) as described in section IV of this Initial Study Checklist. No impact will occur.

X. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

Important mineral resources occurring in Contra Costa County include crushed rock, shale, sand, and sandstone (Contra Costa County 2005). There are no mapped mineral resource areas in the project area (Contra Costa County 2005).

Potential Environmental Effects

- a) *Would the project 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?*

There are no mapped mineral resource areas in the project area (Contra Costa County 2005). The project will not impact the availability of mineral resources that would be of value to the state or region. No impact will occur.

- b) *Would the project 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?*

There are no mapped mineral resource areas in the project area (Contra Costa County 2005a). The project will not adversely affect the availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. No impact will occur.

XI. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 groundborne vibration or groundborne 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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Setting

The 2005 Contra Costa County General Plan Noise Element establishes policies and standards for noise exposure.

Potential Environmental Effects

- a) *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?*

Construction of the project will temporarily increase the noise level in and immediately adjacent to the project area. In general, construction activities typically produce noise levels of approximately 86 decibels (dBA) at 50 feet. The majority of activities associated with the safety improvement project will have comparable noise levels to this generalized average. There will be some limited pile driving associated with construction of the widened bridge abutments which is expected to produce noise levels of approximately 192 decibels (dBA) at 30-50 feet. Contract specifications will require the use of properly

tuned and muffled equipment to minimize noise generated as a result of construction. Given that there are no sensitive receptors within or nearby the project area (the nearest sensitive receptor is the Native American community who still use the Vasco Caves for ongoing cultural activities; the caves are over 2000 feet from the project and are separated from the construction zone by a large hill). The project is not expected to have direct or indirect effects on the Vasco Caves (S. Dexter, May 12, 2009); therefore, project impacts will be less than significant.

- b) *Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Project construction includes activities, such as operation of large pieces of equipment, excavation, and pile driving that may result in the periodic temporary generation of groundborne vibration. The project will not increase the capacity of Vasco Road. After construction, groundborne vibration associated with use of the road would not change from the current condition. Project impacts will be less than significant.

- c) *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

The project will not increase the capacity of Vasco Road in the project area. The project will not contribute to a substantial permanent increase in the ambient noise levels in the project vicinity above current conditions. No impact will occur and no mitigation is needed.

- d) *Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

See discussion under Item a above. Project impacts will be less than significant.

- e) *For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project area is located within two miles of the Byron Airport and falls partially within the Byron Airport influence area. The project includes the construction of safety improvements along an existing roadway. No one resides in or works in the project area. Therefore impacts will be less than significant.

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

The project is not located in the vicinity of a private airstrip. No impact will occur.

XII. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

The project includes construction of safety improvements to an existing segment of Vasco Road in a rural area with primarily range land and wind-energy generation and land uses.

Potential Environmental Effects

- a) *Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?*

The project will not increase the capacity of Vasco Road. The project will not induce substantial population growth in an area. No impact will occur.

- b) *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

The project would not result in the displacement of existing housing. No impact will occur.

- c) *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

The project would not result in the displacement of people. No impact will occur.

XIII. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

The Contra Costa County Sheriff's Department provides general public safety and law enforcement services. The East Contra Costa County Fire Protection District provides fire protection services and emergency services. The County maintains public facilities including Vasco Road.

Potential Environmental Effects

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 following public services:

- a) *Fire protection?*
- b) *Police protection?*
- c) *Schools?*
- d) *Parks?*
- e) *Other public facilities?*

The project would not increase the capacity of Vasco Road and will not require additional public facilities to provide adequate service identified in items a - e. No impact will occur.

XIV. RECREATION

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

Environmental Setting

There are no recreation facilities within or adjacent to the project area.

Potential Environmental Effects

- 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?*

There are no neighborhood parks or recreation facilities in the area. The project will not result in an increase of the use of existing parks in the area and does not include the construction of any recreational facilities. The East Bay Regional Park District owns and manages the Vasco Caves Preserve adjacent to the project; however, the project will not increase the use of that facility. This is a less than significant impact.

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

The project does not include the construction of any recreational facilities and would not require the creation of new recreational facilities. No impact will occur.

XV. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard 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) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

Environmental Setting

Vasco Road is a critical County expressway providing a transportation link between Contra Costa County and Alameda County (Contra Costa County 2005). The roadway experiences heavy traffic during peak commute hours. Since the 1990's, commute traffic on Vasco Road has increased steadily due to residential growth in Eastern Contra Costa County and employment in the Tri-Valley (Alameda and Contra Costa Counties) and Silicon Valley in Santa Clara County. Vasco Road north of I-580 is a major commuter and truck route, serving as an alternative to the congested I-680 and SR 4 corridors. Average daily traffic was 19,888 vehicles in August of 2008. Projected daily volumes are expected to be approximately 25,400 vehicles in the year 2012.

Potential Environmental Effects

- a) *Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either*

the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?

The Vasco Road Safety Improvement Project will include construction of a concrete median barrier and connection of two existing truck climbing lanes which will eliminate a merge. These design features are intended to reduce the number of serious injury accidents that occur along Vasco Road. Given that the roadway will continue to be two lanes above and below this section of improvements, there will be no increase in capacity as a result of the project. There will be short term impacts associated with construction of the safety improvements. In order to minimize potential traffic impacts, traffic flows will be maintained in both directions throughout construction. During the weekday commute hours (i.e., between 5:30 a.m. and 8:30 a.m., and between 3:00 p.m. and 7:00 p.m.), one lane in each direction of travel will be required. During the weekday non-commute hours and weekends when work is actively in progress, the contractor will be allowed to reduce traffic to one lane to be used interchangeably for both directions of traffic with the use of flaggers and pilot cars. Any temporary one-lane closures will be infrequent and of short duration. Construction work may be scheduled at times of minimal traffic volume such as nights and weekends. Because one lane in each direction will be available during peak commute times, traffic impacts will be less than significant.

- b) *Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

These project's design features are intended to reduce the number of serious injury accidents that occur along Vasco Road. Given that the roadway will continue to be two lanes above and below this section of improvements, there will be no increase in capacity as a result of the project and no change to the roadway's level of service is expected. There will be no impact.

- c) *Would the project 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?*

Byron Airport is located within two miles of the project. The project will not result in a change in air traffic patterns as there will be no increase in traffic levels or change in location that would pose a substantial safety risk. Therefore, there will be no impact.

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

The goal of the project is to reduce the likelihood of injury accidents by installing a median barrier and removing a merge. The project will not increase hazards due to a design feature. There will be no impact.

e) *Would the project result in inadequate emergency access?*

No interference with an emergency access would result from the project. During construction, traffic control measures will provide access for emergency vehicles and will also minimize the potential for accidents. Therefore, project impacts will be less than significant.

f) *Would the project result in inadequate parking capacity?*

Parking along Vasco Road is prohibited. There will be no impact as a result of the project.

g) *Would the project conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

Vasco Road is a highly utilized commuter expressway; therefore use by bicycles is not common, particularly mid-week. Although Vasco Road is not currently designated as a bikeway per the Countywide Bikeway Network Plan, nor is it planned as a future bikeway, the proposed roadway improvements are not inconsistent with bicycle use.

XVI. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

There are no utilities located in or adjacent to the project area except for two petroleum pipelines that cross the roadway just outside the southern conform of the project. There will be no construction over these pipelines except for pavement striping work. Contra Costa County maintains the stormwater drainage facilities (i.e. drainage ditches and culverts) in the existing right of way.

Potential Environmental Effects

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

The project would not produce wastewater and therefore, will not affect wastewater treatment facilities. No impacts will occur.

- 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?*

The project does not include construction of new water or wastewater treatment facilities or expansion of existing facilities. No impacts will occur and no mitigation is needed.

- 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?*

Due to the area of new impervious surface being added, the project will conform to Provision "C.3" of the NPDES permit governing discharges from the municipal storm drain systems of Contra Costa County. CCCPWD plans to create "flow-through planters" in the road right of way adjacent to the roadway to satisfy this requirement. The purpose of the flow-through planters is to treat the runoff created by the additional pavement being constructed. The construction of the flow-through planters in the project area will not cause significant environmental effects. Project impacts will 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?*

The project will not require water service. No impacts will occur.

- e) *Result in a determination by the wastewater treatment provider that 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?*

The project does not require wastewater treatment services. No impact will occur.

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

Solid waste generated by the project would be limited to construction debris, including asphalt and concrete, generated by the excavation of existing roadway and construction of the proposed improvements. Solid waste disposal will occur in accordance with federal, state and local regulations. Disposal of these materials will occur at permitted landfills. The project will not generate the need for a new solid waste facility. Project impacts will be less than significant.

- g) *Comply with federal, state and local statutes and regulations related to solid waste?*

The project would conform to all applicable state and federal solid waste regulations. No impact will occur.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to 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 rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?*

The project will not degrade the quality of the environment. The project will not substantially reduce the habitat or affect populations of any fish or wildlife species (see Section IV) or eliminate important examples of the major period of California history or prehistory (see Section V). Project impacts will be less than significant with mitigation.

- 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?*

As discussed in Section IV (Biological Resources) and Section V (Cultural Resources) impacts will be reduced to less than significant through the incorporation of mitigation measures. As discussed in Sections I-III and VI-XVI the project will have no impacts or impacts will be less than significant. Cumulatively considerable impacts will be less than significant.

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

The project is intended to improve the safety of Vasco Road. The project will not result in direct or indirect environmental effects that will cause substantial adverse effects to human beings. Project impacts will be less than significant.

3. SUPPORTING INFORMATION SOURCES

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BIOLOGICAL RESOURCES

RESOURCE	SUMMARY OF MEASURES	MONITORING RESPONSIBILITY	TIMING
MITIGATION MEASURES			
San Joaquin Spearscale	Mitigation Measure BIO-01: If impacts to spearscale cannot be avoided (to be determined via preconstruction survey), Conservation Measure 3.10, Plant Salvage when Impacts are Unavoidable, will be implemented. For annuals, such as San Joaquin spearscale, the measure requires that mature seeds be collected from all individuals for which impacts cannot be avoided. If storage is necessary, seed storage studies will be conducted to determine the best storage technique for the species. If needed, studies will be conducted on seed germinated and plants grown to maturity in garden or greenhouse to propagate larger numbers of seeds. Seed propagation methods will ensure that genetic variation is not substantially affected by propagation. Where seeds are distributed to the field, they will be located in preserves in suitable habitat to establish new populations. If seed collection methods fail (e.g., due to excessive seed predation by insects), alternative propagation techniques will be necessary. The HCP Conservancy will conduct all salvage and seed storage study operations. To ensure enough time to plan salvage operations, the County will notify the Conservancy of their schedule for removing the covered plant population.	CCCCPWD (notification to HCP Conservancy, and HCP Conservancy (plant salvage and seed storage studies)	Prior to implementation of construction
Special-Status Species/Habitat	Mitigation Measure BIO-02: The CCCCWD will pay the applicable HCP/NCCP development fee (rural road development) and wetland fee for permanent and temporary land and wetland impacts that have the potential to impact special-status species, their habitats, and natural communities. The rural road fee is based on the acreage of total project impact and the wetland fee is determined by the acreage of impact to type of wetlands and waters as outlined in the Wetland Mitigation Fee Table 9-5 of Chapter 9 of the HCP	CCCCPWD	Prior to construction contract award.
Special Status Wildlife	Mitigation Measure BIO-03: Post-construction study: because the effectiveness of road crossings for wildlife is an active area of research, and frequent advances in design are expected over the 30 year life of the HCP incidental take permit, the permeability component of the project includes performance of a post-construction study to determine optimal crossing spacing. The study will be conducted in three consecutive breeding season in order to ensure a large	CCCCPWD	Study - Post construction (3 consecutive breeding seasons following construction); Maintenance – in

APPENDIX A: Mitigation Monitoring and Reporting Plan

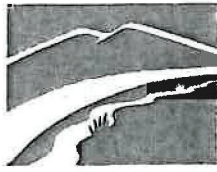
RESOURCE	SUMMARY OF MEASURES	MONITORING RESPONSIBILITY	TIMING
	enough data set. The results of the study are intended to inform adequate crossing spacing by species on future projects. Maintenance: in order to ensure that the newly installed permeability features are performing optimally, vegetation, fencing, and grating maintenance will occur three times a year: 1) late December to early January (mid-way through the California tiger salamander migration), 2) in April/May after most vegetation has grown significantly, 3) mid to late October to ensure that all components of the permeability design are in good repair prior to the tiger salamander migration to breeding habitat. Maintenance will include repair or replacement of any portion of fencing that is damaged, clearing of all debris from undercrossing entrances, clearing debris from and repair of grating. Additionally, any damage to fencing arising from car collisions will be repaired immediately.		perpetuity according to the schedule in the mitigation measure

ARCHAEOLOGICAL RESOURCES

RESOURCE	SUMMARY OF MEASURES	MONITORING RESPONSIBILITY	TIMING
MITIGATION MEASURES			
Paleontology (Panoche Formation)	Mitigation Measure CUL-01: A Paleontological Resources Monitoring and Mitigation Plan and has been developed for this project, and will be implemented during ground-disturbing activities that impact the paleontologically sensitive Panoche Formation. A qualified professional paleontologist (Conformable Impact Mitigation Guidelines Committee 1995) shall be retained to supervise paleontological monitoring of ground-disturbance within the Panoche Formation for paleontological resources (fossils). The paleontological monitor shall be authorized to briefly redirect and/or halt construction activities at the location of an isolated discovery, to review the potential paleontological material, and to protect the resource while it is evaluated under the criteria set forth in Section 15064.5 of the CEQA Guidelines. Monitoring shall continue at the project area	CCCPWD	During and post-construction (if paleontological resources are identified during construction).

APPENDIX A: Mitigation Monitoring and Reporting Plan

RESOURCE	SUMMARY OF MEASURES	MONITORING RESPONSIBILITY	TIMING
	until the supervising qualified paleontologist determines that no native sediments are present or that significant paleontological resources are not likely to be discovered. Should a significant paleontological resource be discovered during monitoring by an on-site qualified paleontological monitor, then; • excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by the on-site qualified paleontologist • The discovery shall be removed from the site and documented as needed, the potential resource evaluated, and the significance of the find shall be assessed under the criteria set forth in Section 15064.5 of the CEQA Guidelines. • The on-site qualified paleontologist shall determine if any finds are isolated in nature, or part of an articulated specimen or aggregate of specimens (i.e. a bone bed). If not isolated and determined significant, the paleontologist shall work with the CCCPWD to temporarily avoid the find until the Paleontological Mitigation Plan can be implemented. • If the CCCPWD determines that avoidance is not feasible, the paleontologist shall implement the project specific Paleontological Mitigation Plan which will assure that the find is sufficiently documented to be of scientific value, a report prepared, and fossils are curated in a recognized paleontological repository, such as the University of California, Museum of Paleontology.		
Paleontology (unanticipated discovery)	Mitigation Measure CUL-02: Portions of the project area outside of the exposed Panoche Formation will not be subject to mitigation Measure CUL-1. For these areas, in the event of an unanticipated paleontological discovery during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist per current Society of Vertebrate Paleontology standards. Should the find be determined significant, the Paleontological Mitigation Plan outlined in Mitigation Measure CUL-1 shall be implemented.	CCCPWD	During and post construction (if paleontological resources are found during construction)



Contra Costa County
Public Works
Department

Julia R. Bueren, Director

Deputy Directors

R. Mitch Avalon • Brian M. Balbas

Stephen Kowalewski • Patricia McNamee

August 12, 2009

Mr. Francis X. Mohan, III
Law Office of Francis X. Mohan, III
3439 Brookside Road, Suite 208
Stockton, CA 95219-1768

Re: Response to Comments
Vasco Road Safety Improvement Project
Federal Proj. Nos. ESPL 5928(093) and DEMO5 5928(094)
County Proj. No. 0662-6R4254

Dear Mr. Mohan:

Thank you for submitting comments on the Vasco Road Safety Improvement Project Mitigated Negative Declaration (CP # 09-55). Your comment stated that you are looking for more detail including a map explaining where breaks in the median barrier will occur.

I understand that your client, Duane F. Martin, Jr., met with staff from our Design Division (specifically Mike Hollingsworth, Division Head, and Neil Leary, Senior Engineer) on July 20, 2009. At that meeting the project layout, including median barrier breaks and future ingress and egress to your client's property, was discussed, and your client was provided with a map showing the locations of median barrier breaks.

The project is currently scheduled to be heard by the County Board of Supervisors on August 25, 2009. Please feel free to contact me at (925) 313-2366, or lchav@pw.cccounty.us, or the project engineer, Neil Leary, at (925) 313-2278 or nleary@pw.cccounty.us with any further questions. Thank you.

Sincerely,

Leigh Chavez

Environmental Analyst III

Engineering Services-Environmental

LC:

Attachment: Comment Letter from Mr. Mohan

Cc: M. Carlson, Transportation Engineering
C. Lau, Transportation Engineering
N. Leary, Design

LAW OFFICE OF

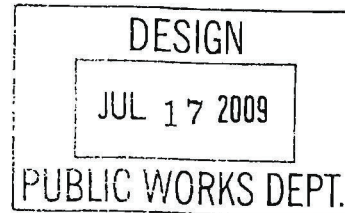
FRANCIS X. MOHAN III

3439 BROOKSIDE ROAD, SUITE 208 STOCKTON, CALIFORNIA 95219-1768
TELEPHONE: 209 957-0660 FAX: 209 957-0595

Francis X. Mohan III
Certified Specialist, Taxation Law, State Bar of California Board of Legal Specialization
frank@mohanlaw.net

Jason L. Perisho
jason@mohanlaw.net

July 15, 2009



Neil Leary
Contra Costa County Public Works Department
255 Glaciers Drive
Martinez, CA 94553

Re: Duane F. Martin, Jr.
Notice of Public Review and Intent to Adopt a Proposed Mitigated Negative
Declaration County - File No. CP 09-55
Our File No. 0834.01-0

Dear Mr. Leary:

I have tried to reach you by phone and have received the Notice of Public Review and Intent to Adopt a Proposed Mitigated Declaration with respect to the Vasco Road Safety Improvement Project. My client, Duane F. Martin, Jr., owns property which will be effected by the road safety improvement project on both sides of Vasco Road. In reviewing the contents of the project it is my understanding that a concrete medium barrier will be installed along Vasco Road and that there will be certain breaks in this medium barrier to accommodate movements and access to both sides of the road.

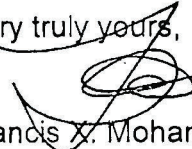
I'm looking for more detail and perhaps a map explaining where these breaks in the barrier will occur. It is our hope that these barriers will not effect the ingress and egress to and from Mr. Martin's property nor require a two mile alternative route to get back to the property of which he now has complete access to.

If you could shed some additional light on the proposed project, I would appreciate it.

Should the information be easier to forward by email, my email address is frank@mohanlaw.net.

I look forward to hearing from you shortly.

Very truly yours,


Francis X. Mohan, III
Attorney at Law

FXM:dc
cc: Duane Martin, Jr.



Contra Costa County
Public Works
D e p a r t m e n t

Julia R. Bueren, Director

Deputy Directors

R. Mitch Avalon • Brian M. Balbas

Stephen Kowalewski • Patricia McNamee

August 12, 2009

Mr. Mark Seedall
Principal Planner
Contra Costa Water District
1331 Concord Avenue
P.O. Box H2O
Concord, CA 94524

Re: Response to Mitigated Neg Dec Comments
Vasco Road Safety Improvement Project
Federal Proj. Nos. ESPL 5928(093) and DEMO5 5928(094)
County Proj. No. 0662-6R4254

Dear Mr. Seedall:

Thank you for providing comments from Contra Costa Water District (CCWD) on the Vasco Road Safety Improvement Project Mitigated Negative Declaration (CP # 09-55). Our responses to your comments follow the numbering of your comment letter for comments 1-4; comments 5 and 6 are noted in the margin of your attached letter.

Staff from the Public Works Department met with staff from your agency (Mark Mueller and Dino Angelosante) on August 5, 2009 regarding the project. As discussed at the meeting, there are two phases that comprise the full 2.5 mile long project (extending from Engineering Stations 247 to 363): Phase I extends from Engineering Station 243 to approximately Station 300 (roughly 1.0 mile); Phase II extends from Station 301 to Station 363 (roughly 1.5 miles). Although environmental clearance has focused on the complete 2.5 mile alignment, we currently have funding for construction of Phase I only. Construction of Phase I is slated to begin in spring of 2010. Phase II will be constructed at an undetermined later date when funding becomes available.

Comment #1: At our August 5th meeting we provided a draft plan sheet to CCWD staff depicting all proposed wildlife protection features in both plan view and detail format (fencing, undercrossings, jumpouts, barrier openings, scuppers, etc.). While the plan sheet provided is specific to the Phase I project, the basic wildlife protection program will be carried through to Phase II of the project, as well. At that same meeting, Mr. Mueller pointed out the wildlife protection features CCWD is responsible for maintaining that fall within the 2.5 mile limits of the Vasco Road Safety Improvement Project (Engineering Stations 243 to 363). See below for a discussion regarding maintenance of existing and proposed wildlife protection features.

"Accredited by the American Public Works Association"

255 Glacier Drive Martinez, CA 94553-4825

TEL: (925) 313-2000 • FAX: (925) 313-2333

www.cccpublicworks.org

Comment #2: Staff from the Public Works Department has been working with staff from the regulatory agencies (U.S. Fish and Wildlife Service and California Department of Fish and Game) as well as staff from the East Contra Costa Habitat Conservation Plan (HCP) Conservancy for almost two years regarding wildlife movement patterns and protections for the project. This coordination has culminated in a Wildlife Permeability Plan that incorporates design features to keep wildlife off of Vasco Road and facilitate wildlife movement under the roadway. The permeability plan targets California red-legged frog, California tiger salamander, and San Joaquin kit fox, but is designed to keep all terrestrial wildlife that could occur in the area off of Vasco Road. The permeability plan includes features such as large and small animal undercrossings, continuous wildlife exclusion fencing, and large and small animal jumpouts (in the event wildlife does end up on the roadway). In addition to the wildlife protection designs, the Permeability Plan also includes a monitoring and maintenance component to ensure the implemented features function appropriately.

County staff members have met twice over the last two months with Fish and Game (DFG) and Fish and Wildlife (FWS) to ensure we have developed a plan that the agencies will approve. Our last meeting was on August 5th. With some minor final changes to the plan, the agencies indicated that they are satisfied with the proposal and prepared to sign off pending final plan submittal.

Comment #3: At our August 5th meeting we provided CCWD staff with a plan sheet depicting all wildlife protection features in both plan view and detail format (fencing, undercrossings, jumpouts, barrier openings, scuppers, etc.). While the plan sheet was specific to the Phase I project, the basic wildlife protection program will be carried through to Phase II of the project, as well.

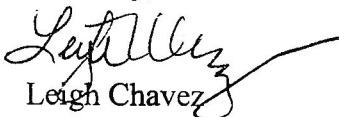
Comment #4: The County acknowledges that maintenance of all wildlife protection features to be installed within the 1.0 mile section of Vasco Road (Stations 243 to 300) will be the responsibility of the County exclusively. Therefore, all fencing, amphibian grates at gates, access gates (excluding electronic mechanisms), culverts, and jumpouts installed within the 1.0 mile section (Phase I) will be maintained by the County. The County acknowledges that CCWD will have no further maintenance responsibility for wildlife protection features within this 1.0 mile section of roadway (including the two existing kit fox crossings installed with the original realignment of Vasco Road). All wildlife protection features installed as a result of the original Vasco Road Realignment that fall outside of these limits will continue to be the responsibility of CCWD. Following construction of Phase II, all maintenance responsibilities associated with that section of roadway (from roughly Station 300 to Station 363) will also transition to the County.

Comment #5: Comment noted. As discussed with CCWD staff on August 5th, there will be no property acquisition associated with the 1.0 mile Phase I portion of the project with the exception of the area necessary to move and ultimately maintain existing gates and tiger salamander grates to accommodate the roadway widening. Real Property transactions associated with the remaining 1.5 mile section (Phase II) will be negotiated with your agency when that phase of the project is funded.

Comment #6: Comment noted. Where feasible, the project will tie into existing drainage structures. Where warranted, these existing drainage structures will be reconstructed to repair damage and accommodate modifications to drainage resulting from the roadway widening and associated improvements (i.e., retaining walls, cut slopes, etc.). Any new drainage facilities will be constructed according to current design standards to ensure adequate protection from erosion. Additionally, the project will comply with provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit to ensure the project contributes no additional stormwater runoff as a result of the additional impervious surface that will be created due to the safety improvements.

Please feel free to contact me at (925) 313-2366, or lchav@pw.cccounty.us, or the project engineer, Neil Leary, at (925) 313-2278 or nleary@pw.cccounty.us if you have any further questions. Thank you.

Sincerely,



Leigh Chavez
Environmental Analyst III
Engineering Services-Environmental

LC: me
Attachment: CCWD Comment Letter

Cc: M. Carlson, Transportation Engineering
C. Lau, Transportation Engineering
N. Leary, Design



**CONTRA COSTA
WATER DISTRICT**

1331 Concord Avenue
P.O. Box H2O
Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122
www.ccwater.com

July 24, 2009

VIA FACSIMILE (925) 313-2333
Hard Copy to Follow

Directors

Joseph L. Campbell
President

Karl L. Wandry
Vice President

Elizabeth R. Anello
Bette Boatman
John A. Burgh

Walter J. Bishop
General Manager

Ms. Leigh Chavez
Environmental Analyst III
Contra Costa County Public Works Dept.
255 Glacier Drive
Martinez, CA 94533

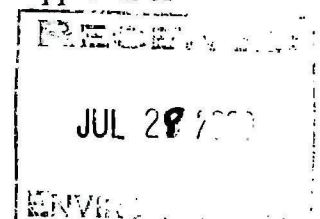
Subject: Vasco Road Safety Improvement Project Mitigated Negative Declaration

Dear Ms. Chavez:

Contra Costa water District (CCWD) is responsible for the following wildlife protections. Establishment and maintenance of San Joaquin Kit Fox and California Tiger Salamander protections under U.S. Fish & Wildlife Service (USFWS) Biological Opinion (BO) 1-1-99-F-0093 dated September 3, 1993 and pertinent amendments related to Los Vaqueros Reservoir Project which is part of the Central Valley Project. CCWD is also obligated to the establishment and maintenance of wildlife protections for the California Red-Legged Frog under USFWS BO 1-1-96-F-151 and pertinent amendments for the Los Vaqueros Project. In addition, CCWD is similarly obligated to wildlife protections for the Los Vaqueros Project with respect to the San Joaquin Kit Fox under California Department of Fish & Game (DFG) Endangered Species Act Memorandum of Understanding (MOU) No. 9339 dated February 17, 1994 and pertinent amendments.

The Mitigated Negative Declaration (MND) makes no mention of CCWD's existing obligations for wildlife protections along Vasco Road related to the above BOs and the DFG MOU. This is a serious inadequacy since wildlife protection is an important element in the design of the improved Vasco Road being undertaken by Contra Costa County (County). Regulators such as the USFWS and DFG will need to understand both CCWD and County responsibilities with respect to the wildlife protections along the improved portion of the road. Hence, CCWD requests that the MND be amended to make clear CCWD's existing obligations and how these obligations can be best coordinated with the new set of wildlife protections brought on by the County's Vasco Road Improvement Project.

Specifically, CCWD requests the following conditions be attached to approval of the Vasco Road Improvement Project:



- 1) Identification of all Wildlife Protections: County to coordinate with CCWD to identify all pertinent CCWD and County wildlife protections and easements pertinent to the Vasco Road Improvement Project. These wildlife protections and easements should be clearly identified on revised plan drawings for the project.
- 2) Coordination with Regulators: County and CCWD to jointly coordinate with USFWS and DFG on how best to establish County wildlife protections and how best to maintain and inspect CCWD and County wildlife protections and easements along the improved portion of Vasco Road.
- 3) Construction Phase: County to consult with CCWD before constructing the County-obligated wildlife protections and provide to CCWD all necessary drawings and documentation that makes clear the type, nature and extent of County-obligated wildlife protections.
- 4) Operations & Maintenance Phase: County to consult with CCWD on how best to perform maintenance and inspection of wildlife protections along the improved portion of Vasco Road.

Please refer to the attached map of CCWD wildlife protections along Vasco Road for which CCWD has been responsible. Please also note on the map that locations by stationing of Tiger Salamander fencing that would be affected by the project are as follows: Segment 4- both sides of the road starting at Station 220+00 and ending at Station 256+00; Segment 5- both sides of the road starting at Station 100+00 and ending at Station 170+00. Station locations are taken from the County exhibit: Vasco Road Safety Improvements/Wildlife Crossing & Directional Fencing Plan.

5 [In addition to the foregoing, CCWD has been advised that the entrance to Howden Road, which is owned by CCWD, may be changed. CCWD also holds easement rights to use undercrossings beneath Vasco Road within the project area, and owns other land abutting the road. The MND makes no mention of any of these property rights, the effects of the project on the adjacent landowners, or how the landowners' rights will be addressed. This is another serious inadequacy in the MND. An additional mitigation condition should be included within the MND to address Howden Road and the undercrossings beneath Vasco Road.

Finally, Vasco Road encompasses numerous drainage structures, some of which extend beyond the land owned by the County and onto adjacent landowners' holdings. Some of these structures are failing and are creating serious erosion

Ms. Leigh Chavez
Contra Costa County DPW
Vasco Road Project
July 24, 2009
Page 3

6 [issues. The MND should include a condition to address the drainage structures and how the structures will be affected by the Project. The MND should also address any environmental issues associated with the drainage structures that will need to be improved (or at a minimum not exacerbated) by the Project.

I may be contacted at (925) 688-8119 should you have further questions.

Sincerely,



Mark A. Seedall
Principal Planner

MAS/jmt/rlr

Attachments: Los Vaqueros Fact Sheet; CCWD Wildlife Protections along Vasco Road



ARNOLD SCHWARZENEGGER
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT
DIRECTOR

July 28, 2009

Leigh Chavez
Contra Costa County Dept. of Conservation and Development
651 Pine Street
Martinez, CA 94553

Subject: Vasco Road Safety Improvement
SCH#: 2009062094

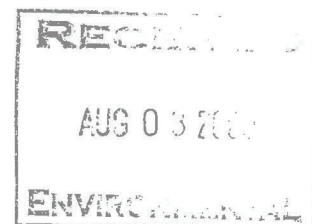
Dear Leigh Chavez:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on July 23, 2009, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts
Director, State Clearinghouse



**Document Details Report
State Clearinghouse Data Base**

SCH# 2009062094
Project Title Vasco Road Safety Improvement
Lead Agency Contra Costa County

Type MND Mitigated Negative Declaration

Description The Vasco Road Safety Improvement Project has been proposed by Contra Costa County to improve the safety of a 2 plus mile stretch of Vasco Road between Brentwood and Livermore, CA. The stretch of road being considered for improvements runs from engineering Station 363+00 in the north, south to Station 244+00, ~3 miles north of the Contra Costa County/Alameda County line. This stretch of rural, twisting road has heavy, fast-moving traffic, and a history of serious injury accidents.

This project will construct a concrete median barrier along Vasco Road. The existing 2 lane segment from approximate Station 244+00 to 290+00 will require additional pavement to connect the 2 existing southbound passing lanes eliminating 2 merges. A break in the median barrier will occur between stations 270+00 to 279+00 (900 ft) to accommodate turning movements and access to the East Bay Regional Park District's facilities. There will be no increase in capacity as a result of the project. Associated drainage, retaining walls, signing, striping, turn pockets, guardrail adjustments, and barrier end-treatments will be constructed as necessary to accommodate the installation of these improvements. Two bridge widenings over Brushy Creek will be required.

Lead Agency Contact

Name Leigh Chavez
Agency Contra Costa County Dept. of Conservation and Development
Phone 925-313-2366 **Fax**
email
Address 651 Pine Street
City Martinez **State** CA **Zip** 94553

Project Location

County Contra Costa
City Byron
Region
Lat / Long 37° 48' 44" N / 121° 39' 47" W
Cross Streets Camino Diablo
Parcel No.
Township 1S **Range** 3E **Section** 31 **Base** MDB&m

Proximity to:

Highways SR 4
Airports Byron
Railways
Waterways Brushy Creek
Schools Byron Union/Liberty Union
Land Use GP: Public Semi-Public
Z: County Expressway

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 4; Air Resources Board, Transportation Projects; State Water Resources Control Board, Clean Water Program; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Toxic

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Substances Control; Native American Heritage Commission; State Lands Commission

Date Received 06/24/2009 ***Start of Review*** 06/24/2009 ***End of Review*** 07/23/2009