Draft

ROBLAR ROAD QUARRY

Supplemental Environmental Impact Report
SCH # 2004092099

Prepared for
County of Sonoma Permit and
Resource Management Department

September 2018

ESA

Draft

ROBLAR ROAD QUARRY

Supplemental Environmental Impact Report
SCH # 2004092099

Prepared for
County of Sonoma Permit and
Resource Management Department

September 2018

ESA
550 Kearny Street, Ste 800
San Francisco, CA 94108
415.896.5900
www.esassoc.com

D160752

TABLE OF CONTENTS

Roblar Road Quarry
Supplemental Environmental Impact Report

Page

List of Figures

List of Tables

ROBLAR ROAD QUARRY SUPPLEMENTAL EIR

Executive Summary

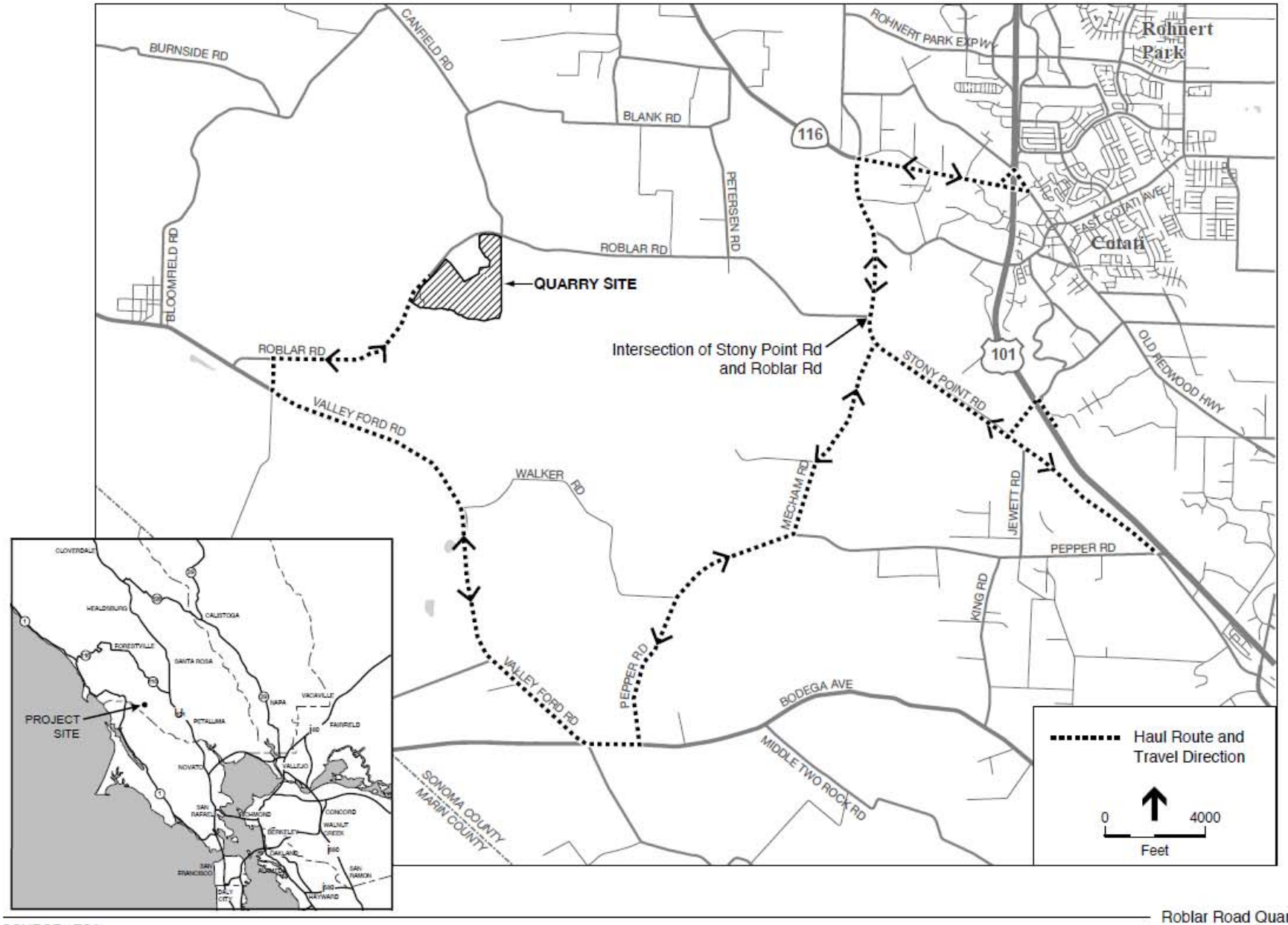
Background

On December 14, 2010, the Sonoma County Board of Supervisors (Board) certified the Roblar Road Quarry Final Environmental Impact Report (Final EIR), and approved a Use Permit (Use Permit PLP03-0094) for a modified version of one of the alternatives to the originally-proposed Quarry project described in the Final EIR, Alternative 2 (herein referred to as "Modified Alternative 2"). The Use Permit allows for a 20-year mining permit with an annual limit of 570,000 tons per year.

Under the approved Modified Alternative 2, all truck traffic generated by the Quarry will use the Applicant's identified alternative haul route. This alternative haul route will consist of an improved section of Roblar Road from the Quarry entrance west to the point where the haul route turns off Roblar Road onto a private off-road segment named Access Road 2, which will connect to Valley Ford Road. From there, Quarry trucks will use other public roads to and from U.S. Highway 101 (U.S. 101). To date, neither the Quarry nor the alternative haul route has been developed (**Figure ES-1**).

The Applicant now proposes several changes to the Use Permit Conditions of Approval (COA) that, if approved by the Board, would enable the Applicant to develop certain aspects of the project differently from Modified Alternative 2, the originally-proposed Quarry project, or any of the alternatives examined in the Final EIR. This Supplemental Environmental Impact Report (Supplemental EIR) examines the potential for the proposed modifications to the Use Permit to result in new or substantially more severe significant impacts due to the changes in the project, any changed circumstances under which the project would be undertaken, or new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Final EIR was certified.

The Roblar Road Quarry is owned by Barella Family, LLC. The Applicant for the currently-proposed modifications to the Quarry Use Permit is John Barella Land Investments. The address of the Quarry site is 7175 Roblar Road, Petaluma (Figure ES-1).



SOURCE: ESA

Roblar Road Quarry . 160752

Figure ES-1

Project Location and Approved Haul Route

Project Description

The proposed changes to the Use Permit include the following:

Modify the Design of the Intersection of Stony Point Road /Roblar Road. The Use Permit requires the Applicant to make improvements to the Stony Point Road / Roblar Road intersection, including installing four-way signals, widening all approaches to the intersection, and adding left-turn lanes, according to a design previously prepared by the County. The Applicant proposes a different design for the intersection improvements.

Modify the Design of Roblar Road Improvements. The Use Permit requires the Applicant to make improvements to Roblar Road from the Quarry entry to Access Road 2. These improvements include widening Roblar Road to provide two 12-foot-wide vehicle travel lanes with 6-foot-wide paved shoulders, 2-foot-wide rock shoulders, and associated striping to meet Class II bicycle facilities. The Applicant, citing their inability to obtain the necessary right-of-way, instead proposes to construct improvements to Roblar Road that would include two 11-foot-wide vehicle travel lanes, two 3-foot-wide paved shoulders, and two 2-foot-wide rock shoulders; and not include Class II bicycle lanes. There would also be modifications to the previously proposed alignment of Roblar Road between the Quarry access road and Access Road 2.

Realign Americano Creek Channel and Construct Wetland Enhancement Area on the Quarry Site. In order to accommodate the required widening of Roblar Road, the Applicant proposes to realign the channel of Americano Creek, which runs directly adjacent to Roblar Road along a portion of the Quarry property. The Applicant would create a new channel, farther from the edge of the improved Roblar Road, and would grade and plant the banks of the new channel to establish wetlands and riparian vegetation.

Environmental Impacts and Mitigation Measures

Potential environmental impacts of the proposed modifications to the Use Permit are summarized in **Table S-1**. For each significant impact, the table indicates whether the impact would be mitigated to a less-than-significant level. Please refer to Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, in this Supplemental EIR for a complete discussion of each impact. In Table S-1, where changes to the text of the adopted COA are specified in mitigation measures, additions to the text are underlined.

The proposed modifications to the Use Permit, if approved and implemented, could result in several new or more severe significant adverse environmental impacts, compared to those identified in the Final EIR. Mitigation measures identified in this Supplemental EIR would avoid or reduce most of the impacts to a less-than-significant level. The following significant adverse impacts would be unavoidable, even with the implementation of the identified mitigation measures:

- **Impact 3.4-3:** The proposed substantial increase in truck traffic on Roblar Road, which does not fully meet current roadway design standards, including class II bikeway standards, could introduce potential bicycle safety hazards.

- **Impact 3.4-4:** The proposed substantial increase in truck traffic on Roblar Road, which does not fully meet current roadway design standards and/or has limited sight distance, could introduce potential traffic safety hazards.

If the County approves the proposed modifications to the Use Permit despite the identified significant and unavoidable impacts, the County must state the reasons for its action in writing. This "Statement of Overriding Considerations" must be included in the record of project approval.

This Supplemental EIR finds that a new mitigation measure, not previously considered, has the ability to reduce one impact identified in the Final EIR as significant and unavoidable to less than significant. Final EIR Impact E.2 identified as significant and unavoidable the Quarry project's contribution to Long-Term Cumulative traffic volume and resulting congestion at the Stony Point Road/Roblar Road intersection. The following mitigation measure would reduce this impact to less than significant:

> **Mitigation Measure 3.4-5:** Optimize the traffic signal timing at the intersection of Stony Point Road and Roblar Road to reflect projected future turning movement traffic volumes.

Alternatives

Alternatives to the originally proposed Quarry project are examined in the Final EIR. No additional or modified alternatives are discussed in this Supplemental EIR.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
3.1 Geology, Soils, and Seismicity		
Impact 3.1-1: Proposed modifications to the Use Permit could expose people or structures to seismic hazards including ground failure. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.1-2: Proposed modifications to the Use Permit could cause substantial soil erosion or loss of topsoil. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.1-3: Expansive soils could result in roadway damage and creek slope instability. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.1-4: The proposed modifications to the Use Permit could allow activities in an area underlain by existing unstable geologic materials or on geologic materials that that could become unstable as a result of the modifications. Unstable areas could include landslides, subsidence, or soil collapse. *(No New or Substantially More Severe Significant Impact)*		
3.2 Hydrology and Water Quality		
Impact 3.2-1: The proposed modifications to the Use Permit could increase on- or off-site erosion, sedimentation, or flooding due to altered drainage patterns. (*Beneficial Impact / No New or Substantially More Severe Significant Impact*)		
3.3 Biological Resources		
Impact 3.3-1: The proposed relocation of Americano Creek would involve construction and grading activities that could disturb or remove wetland and riparian habitat. (*No New or Substantially More Severe Significant Impact, After Mitigation*)	**Mitigation Measure 3.3-1:** Revise wording of Condition/Mitigation Measure 133 as follows to confirm that the referenced 100-foot setback to critical habitat does not apply retroactively and to allow creek relocation, but with specific parameters for wetland and riparian habitat disturbance (additions to the text of the adopted Condition are underlined): **133.** Avoid all potential jurisdictional wetlands and riparian habitat located along the southern boundary (i.e., Ranch Tributary) and the southwestern corner (i.e., seasonal wetlands on valley floor adjacent to Americano Creek) of the property, except as shown in the Applicant's plans for relocation of Americano Creek, specifically the drawing by BKF Engineers, "Americano Creek Relocation" dated September 1, 2017 and the "Conceptual Planting Plan for Realigned Americano Creek" prepared by Ted Winfield, Ph.D., dated August 21, 2017. Prior to construction activities, the project Applicant shall take appropriate measures to protect the wetland and riparian	Less than significant

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
3.3 Biological Resources (cont.)		
Impact 3.3-1 (cont.)	habitat located in these areas. The following protection measures are to be included in the grading and Reclamation Plan: • Installation of exclusionary construction fencing along the southern property line as well as around the two seasonally wetlands identified on [Final EIR] Figure IV.D-1 to protect these features from all project construction and operation activities; • Implementation of measures to control dust in adjacent work areas (see comprehensive dust control program identified in Condition 161); • Maintenance of the hydrologic inputs (flow) to the seasonally wet area in the southwestern corner of the property, unless otherwise approved by resource agencies. • Except as stated above for the relocation of Americano Creek, the project Applicant shall maintain the minimum allowed 100-foot setback for quarry mining operations from stream banks (Americano Creek and Ranch Tributary) and critical habitat areas designated in the Sonoma County General Plan (Chapter 26A, County Code), provided, however, that setbacks from designated critical habitat do not apply to sites that were reviewed pursuant to the California Environmental Quality Act and approved prior to the designation of the relevant critical habitat in the General Plan.	
Impact 3.3-2: Project construction and grading activities associated with the proposed relocation of Americano Creek could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or riparian corridor ordinance. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.3-3: The proposed relocation of Americano Creek could disturb habitat for California red-legged frog, foothill yellow-legged frog, western pond turtle, or California tiger salamander. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.3-4: The proposed relocation of Americano Creek could disturb active nests of raptors, burrowing owls, and other special-status birds. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.3-5: Project construction and grading activities associated with the relocation of Americano Creek and the widening of Roblar Road could result in direct impacts to American badger and the loss of annual grasslands that support this species. (*No New or Substantially More Severe Significant Impact*)		

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
3.3 Biological Resources (cont.)		
Impact 3.3-6: Project construction and grading activities within the creek relocation area would not disturb active roosts of special-status bat species. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.3-7: Proposed modifications to the Use Permit could result in adverse impacts to the surface hydrology and water quality of on-site and surrounding drainages, including Americano Creek, that may impact special-status fish species known to occur downstream of the Quarry project site. (*No New or Substantially More Severe Significant Impact*)		
3.4 Transportation and Traffic		
Impact 3.4-1: The proposed modifications to the Stony Point Road and Roblar Road intersection could affect near-term cumulative plus project levels of service during the weekday a.m. and p.m. peak-hours, and Saturday peak hour. (*No New or Substantially More Severe Significant Impact, After Mitigation*)	**Mitigation Measure 3.4-1:** Prior to the commencement of mining, the applicant shall enter into an improvement and reimbursement agreement with the Department of Transportation and Public Works (DTPW) and install a signal at the Stony Point Road/Roblar Road intersection. The applicant shall have plans prepared for the work in conformance with the Applicant's preliminary design plans, including widening all approaches to the intersection, lengthening the northbound left-turn lane, and adding a southbound left-turn lane (for access to the private driveway across from Roblar Road). The applicant shall widen or relocate to the north the private driveway opposite Roblar Road, within the County right-of-way, or revise the plans to show a relocation of the stop line for the northbound left-turn lane, to provide sufficient turning radius for larger vehicles and vehicles with trailers. The signal shall be designed in accordance with Caltrans guidelines, subject to review and approval by DTPW. An offset of the payment of traffic mitigation fees may be considered.	Less than significant
Impact 3.4-2: The proposed modifications to the intersection could introduce potential bicycle safety hazards on Stony Point Road at Roblar Road. (*No New or Substantially More Severe Significant Impact, After Mitigation*)	**Mitigation Measure 3.4-2:** Widen the paved shoulders on Stony Point Road to a minimum of five feet within the limits of the intersection improvement at Roblar Road unless such widening would disturb ditches.	Less than significant
Impact 3.4-3: The proposed substantial increase in truck traffic on Roblar Road, which does not fully meet current roadway design standards, including class II bikeway standards, could introduce potential bicycle safety hazards. (*Substantially More Severe Significant Impact*)	**Mitigation Measure 3.4-3:** The Applicant shall widen Roblar Road on the 1.6-mile segment between the Quarry site entrance and Access Road 2 with two 11-foot-wide vehicle travel lanes, and an 11-foot west-bound left turn lane at Access Road 2, two 5-foot-wide shoulders (4-foot-wide paved), and appropriate side slope for the entire road design, as determined by the Department of Transportation & Public Works. The Applicant shall widen Roblar Road with at least the following cross section dimensions: • 11-foot-wide vehicle travel lanes and 11-foot-wide left turn lane; • 4-foot-wide paved shoulders; • 1-foot-wide unpaved (rock) shoulders.	Significant and unavoidable

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
3.4 Transportation and Traffic (cont.)		
Impact 3.4-3 (cont.)	Final design of the horizontal curves shall meet *A Policy on Geometric Design of Highways and Streets*, as determined by the Department of Transportation & Public Works, to accommodate all project trucks (including but not limited to trucks hauling gravel) through the curves to prevent offtracking within the pavement in the 1.6 mile segment, while maintaining an acceptable clearance to bicycles and vehicles in the opposing lane. If any component of an adequate design requires additional right of way, and if the applicant is unable to obtain this additional right of way from willing sellers, then any condemnation required must be paid for solely by the applicant.	
Impact 3.4-4: The proposed substantial increase in truck traffic on Roblar Road, which does not fully meet current roadway design standards and/or has limited sight distance, could introduce potential traffic safety hazards. (*Substantially More Severe Significant Impact)*	**Mitigation Measure 3.4-4:** Implement roadway improvements for Roblar Road identified in Mitigation Measure 3.4-3.	Significant and unavoidable
Impact 3.4-5: The proposed modifications to the Stony Point Road and Roblar Road intersection, to not include a southbound right-turn lane, could affect long-term level of service conditions during the weekday a.m. and p.m. peak hours, and Saturday peak hour. (*No New or Substantially More Severe Significant Impact, After Mitigation)*	**Mitigation Measure 3.4-5:** Optimize the traffic signal timing at the intersection of Stony Point Road and Roblar Road to reflect projected future turning movement traffic volumes.	Less than significant
3.5 Hazardous Materials		
Impact 3.5.1: Hazardous materials (e.g., petroleum products) transported to and used on construction sites associated with the proposed modifications to the Use Permit could be spilled or otherwise released through improper handling or storage. (*No New or Substantially More Severe Significant Impact*)		
3.6 Cultural Resources		
Impact 3.6-1: The proposed modifications to the Use Permit could cause a substantial adverse change in the significance of a historical resource. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.6-2: The proposed modifications to the Use Permit could cause a substantial adverse change in the significance of an archaeological resource. (*No new or Substantially More Severe Significant Impact, After Mitigation*)	**Mitigation Measure 3.6-2:** Archaeological monitoring of ground-disturbing construction activities associated with the relocation of Americano Creek and also those associated with Roblar Road widening/reconstruction near ARS 10-016-01 and ARS 10-016-02. Archaeological monitoring shall be conducted for any ground-disturbing construction activities associated with the relocation of Americano Creek, and also any ground-disturbing	Less than significant

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
3.6 Cultural Resources (cont.)		
Impact 3.6-2 (cont.)	construction activities associated with Roblar Road widening/reconstruction activities that are within 200 feet of previously recorded archaeological resources ARS 10-016-01 and ARS 10-016-02. Monitoring shall be required for all surface alteration and subsurface excavation work in these areas, including grubbing, cutting, trenching, grading, use of staging areas and access roads, and driving vehicles and equipment. The archaeological monitoring shall be under direction of an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology (Supervising Archaeologist). An archaeological monitor shall be present during the specified construction ground-disturbing activities according to a schedule agreed upon by the Supervising Archaeologist and County until the Supervising Archaeologist has, in consultation with the County, determined that construction activities could have no impacts on any potentially significant archaeological resources. Archaeological monitors shall record and be authorized to temporary collect soil samples and artifactual/ecofactual material, as warranted, for analysis. All recovered artifacts and samples not associated with human remains will be photographed on-site and removed to a secure location for temporary storage, cleaning and processing. On completion of the project, all retained artifacts and samples with a potential to increase our knowledge of the past will be permanently curated in a facility that meets the standards and guidelines of the Secretary of the Interior, as required by CEQA. Archaeological monitors and the Supervising Archaeologist shall be empowered to temporarily redirect construction crews and heavy equipment until any potential archaeological material, including human remains, is evaluated. If suspected archaeological material, including human remains, is identified during monitoring, the procedures set forth in Mitigation Measure K.1b of the Final EIR shall be implemented. These measures consist of: halting construction activities at the location of the suspected archaeological material; inspection and significance assessment of the find by a qualified archaeologist (i.e., one meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology [Supervising Archaeologist]); and, if the find is determined to be a potentially significant archaeological resource under CEQA, pursuant to CEQA Guidelines Section 15064.5, development of a management plan for the resource, consistent with CEQA and County requirements and policies. The management plan shall be developed and implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4(b)(3), and shall recommend preservation in place or, if preservation in place is not feasible, data recovery through excavation. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding resource site into a permanent conservation easement. If the Supervising Archaeologist determines that any archaeological material identified during construction may have association with Native Americans, relevant Native American representatives (already identified by the California Native American Heritage	

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
3.6 Cultural Resources (cont.)		
Impact 3.6-2 (cont.)	Commission as the Federated Indians of Graton Rancheria) shall inspect the find within 24 hours of discovery and the County shall consult with potentially interested Native American representatives in developing the management plan for the resource and to determine if the resource qualifies as a tribal cultural resource, as defined in PRC Section 21074. If preservation in place is not feasible, the Supervising Archaeologist shall prepare and implement, in coordination with the County and relevant Native American representatives (if applicable), a detailed treatment plan to recover the scientifically consequential information from and about the resource, which shall be reviewed and approved by the County prior to any excavation at the resource's location. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources, though not tribal cultural resources, would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals. Treatment for tribal cultural resources shall be determined through the consultation between the County and relevant Native American representatives (see Impact 3.6-5). After implementation of the management plan and treatment plan (if required), the Supervising Archaeologist shall submit a final report to the County, and relevant Native American representatives (if applicable), detailing their implementation and results. If human remains are encountered, construction ground-disturbing activities within 100 feet of the find shall halt and the protocol set for in PRC Section 5097.98, including notifying the Sonoma County Coroner and, if needed, the California Native American Heritage Commission, shall be followed. Resumption of ground-disturbing activities within 100 feet of any find shall only occur with written permission of the County.	
Impact 3.6-3: The proposed modifications to the Use Permit could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*No New or Substantially More Severe Significant Impact*)		
Impact 3.6-4: The proposed modifications to the Use Permit could disturb human remains, including those interred outside of formal cemeteries. (*No New or Substantially More Severe Significant Impact, After Mitigation*)	**Mitigation Measure 3.6-4:** Implement Mitigation Measure 3.6-2.	Less than significant

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
3.6 Cultural Resources (cont.)		
Impact 3.6-5: The proposed modifications to the Use Permit could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. (*No New or More Significant Impact, After Mitigation*)	**Mitigation Measure 3.6-5:** Implement Mitigation Measure 3.6-2.	Less than significant
3.7 Other Environmental Topics		
Noise and Vibration	**Revise Final EIR Mitigation Measure E.8m as follows:** Roadway widening and creek relocation construction activities for this project shall be restricted as follows: • All internal combustion engines used during construction of this project shall be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code. • Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 a.m. and 7:00 p.m. on weekdays and 9:00 a.m. and 7:00 p.m. on weekends and holidays. Only work that does not require motorized vehicles or power equipment shall be allowed on holidays. If work outside the times specified above becomes necessary, the resident engineer shall notify the PRMD Environmental Review Division as soon as practical.	Less than significant

This page intentionally left blank

CHAPTER 1
Introduction

On December 14, 2010, the Sonoma County Board of Supervisors (Board) certified the Roblar Road Quarry Final Environmental Impact Report (Final EIR), and approved a Use Permit for Alternative 2 as modified by the Board (herein referred to as "Modified Alternative 2"). The Use Permit allows for a 20-year mining permit with an annual limit of 570,000 tons per year.

The Roblar Road Quarry is owned by Barella Family, LLC. The Applicant for the currently-proposed modifications to the Quarry Use Permit is John Barella Land Investments. The Quarry address is 7175 Roblar Road, Petaluma. The Quarry property includes Assessor's Parcel Numbers 027-080-009 and 027-080-010.

Under the approved Modified Alternative 2, all project truck traffic generated by the Quarry will use the Applicant's identified alternative haul route. This alternative haul route will consist of an improved section of Roblar Road from the Quarry access road entrance west to the point where the haul route turns overland off Roblar Road onto a private off-road segment named Access Road 2. Access Road 2 will connect to Valley Ford Road. From there, Quarry trucks will use designated public roads to and from U.S. 101. The Quarry on-site access road and entrance to the Quarry site will be developed the same as that originally proposed and analyzed in the Final EIR.

The original Alternative 2 that was described in the Final EIR consisted of two new temporary private off-road segments (named "Access Road 1" and "Access Road 2"), an improved section of Roblar Road between Access Road 1 and Access Road 2, and the use of various other existing public roads. However, the Board's modification to Alternative 2, which was analyzed prior to Board approval of the Quarry project (ESA, 2010) precludes the construction of Access Road 1 (which would have crossed land encumbered by a Sonoma County Agricultural and Open Space Conservation Easement), and instead requires the Applicant to implement Roblar Road widening improvements from the Quarry access road west to Access Road 2.

The Use Permit requires that the Applicant improve the approximately 1.6-mile-long Modified Alternative 2 haul route section of Roblar Road to meet current County road design standards, including, but not limited to, two 12-foot-wide vehicle travel lanes, two 6-foot-wide paved shoulders (as well as associated striping/signage to meet Class II bicycle facilities), and two 2-foot-wide rocked shoulders. Moreover, the roadway will be improved as needed to meet pavement structural requirements per Caltrans Design Manual standards. The Use Permit requires realignment of an existing "S-curve" on Roblar Road to reduce the horizontal curvature at this location, relocation of existing overhead electrical utilities, and modifications to stormdrain facilities.

The approved Modified Alternative 2 haul route will depart from Roblar Road at Access Road 2, where it will extend southwest through private property (Neve property) for approximately 2,100 feet between Roblar Road and Valley Ford Road. Stormdrains will be installed for the road crossing of two drainages on the Neve property. Access Road 2 will consist of two paved 14-foot-wide travel lanes plus drainage improvements on each side. From this point, Quarry trucks will travel east on Valley Ford Road, Pepper Road (west of Mecham Road), Mecham Road, and a combination of Stony Point Road, SR 116, Railroad Avenue and/or Old Redwood Highway to/from U.S. 101. Quarry haul trucks will not be allowed to use Roblar Road east of the Quarry access road entrance, or Pepper Road east of Mecham Road.

Under the approved Modified Alternative 2, 100 percent of materials produced at the Quarry will be either directly used by the Applicant or sold under contract. As such, all Quarry haul trucks generated at the Quarry will be those associated with the Applicant's own truck fleet, or private haulers under contract with the Applicant, and where the specified haul route will be imposed in the contract. The use of the specified alternative haul route will be enforced by the Applicant, subject to penalties and/or contract termination, depending on the nature and/or frequency of a deviation of the specified haul route by a driver.

Under the approved Modified Alternative 2, all aspects of on-site Quarry characteristics and operations will be identical to that originally proposed, including the maximum permitted production rate (570,000 CY per year), total volume of aggregate that could be mined (11.4 million CY over the 20-year use permit), mining approach and techniques, location and design of all Quarry-related facilities, and interim and final reclamation.

1.1 Proposed Project Changes

The Applicant now seeks to modify its Use Permit (PLP03-0094), as follows:

Modify the Design of the Intersection of Stony Point Road / Roblar Road and Associated Condition of Approval 44 and Final EIR Mitigation Measure E.1. Condition of Approval (COA) 44 and Final EIR Mitigation Measure E.1 require installation of a signal at the Stony Point Road / Roblar Road intersection, including widening all approaches to the intersection, including shoulders, lengthening the northbound left-turn lane, and adding a southbound left-turn lane. The Applicant indicates that the County's preliminary design for improvements at this intersection would impact vegetated drainage features outside the paved and/or hardscaped areas, and affect biological habitat. Impacts of the intersection upgrade were previously examined in an adopted 2005 Initial Study/Mitigated Negative Declaration (Sonoma County PRMD), which found that all project impacts, including impacts to biological resources, would be reduced to less than significant with implementation of specified mitigation measures. The Final EIR refers to these mitigation measures and requires their implementation in Mitigation Measure E.9, which was adopted as COA 86.

The Applicant proposes a modified design that can generally be accomplished within the existing paved and/or hardscaped area, thus minimizing impacts to adjacent vegetated drainage features and potential biological habitat.

Modify the Design to the Modified Alternative 2 Roblar Road Haul Road, and Associated Conditions of Approval 49 and 59.a, and Final EIR Mitigation Measure E.3a. Conditions of Approval 49 and 59 and Final EIR Mitigation Measure E.3a and E.4a require that the improvements to Roblar Road (between the Quarry access road and Access Road 2) include, among other requirements, two 12-foot-wide vehicle travel lanes and two 6-foot-wide shoulders, two 2-foot-wide rock shoulders, and associated striping to meet Class II bike facilities. The Applicant indicates that given the limited width of the existing prescriptive right of way; the proximity of Americano Creek to Roblar Road, other proximal wetlands and/or linear drainage features to Roblar Road; and other factors, that the required road improvements on Roblar Road are impractical, unnecessary and infeasible.

The Applicant instead proposes to construct improvements to Roblar Road that would include two 11-foot-wide vehicle travel lanes, two 3-foot-wide paved shoulders, and two 2-foot-wide rock shoulders; and not include Class II bike lanes. There would also be minor modifications to the previously proposed alignment of Roblar Road between the Quarry access road and Access Road 2.

Realign Americano Creek Channel and Construct Wetland Enhancement Area on the Quarry Site, and modify associated Conditions of Approval 101 and 133. The widening of Roblar Road required in Final EIR Mitigation Measure E.3a would directly impact a section of Americano Creek located on the Quarry property adjacent to Roblar Road, and require this creek segment to be relocated. In order to accommodate the required widening of Roblar Road, the Applicant proposes to realign the creek channel further from the edge of the improved Roblar Road, and improve the habitat complexity along this section of Americano Creek, including establishing riparian vegetation along both sides of the realigned segment of creek.

1.2 Environmental Review for Project Changes

The California Environmental Quality Act (CEQA) Guidelines Section 15160 provides for variations in EIRs so that environmental documentation can be tailored to different situations and intended uses, and these variations are not exclusive. CEQA Guidelines Section 15163(a) indicates that a Supplement to an EIR, rather than a Subsequent EIR, may be prepared if:

1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and

2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

The applicable conditions in Section 15162 that would trigger supplemental or subsequent review are as follows:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR 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 EIR 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 EIR was certified as complete, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(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 previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The County has conducted a review of the Applicant's proposed modifications to the Use Permit COA, and has determined that they have the potential for new or substantially more severe significant impacts. The County has also determined that only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. Therefore, the County has determined that a Supplement to the previous EIR is appropriate.

This Supplement to the Roblar Road Quarry Final EIR examines the proposed modifications to the Use Permit COA and analyzes whether the proposed modifications, or changes to the setting in which the Quarry project would take place, could result in a new or substantially more severe significant impact, compared to the impacts identified in the Final EIR. Where a new or substantially more severe significant impact is identified, this Supplemental EIR specifies mitigation measures for reducing or avoiding the impact, and considers whether the mitigation measures have the ability to reduce the impact to less than significant.

CEQA Guidelines Section 15163(b) indicates a Supplement to an EIR need contain only the information necessary to make the previous EIR adequate for the project as revised. Section 15163(c) indicates a Supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR (outlined in Section 15087). Also, Section 15163(d) indicates a Supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR. Therefore, this Supplement will be circulated by itself for a 45-day public comment period. The County will respond to all substantive comments on the adequacy of the analysis contained in this Supplement, but not to comments on the previous environmental documents. Consistent with CEQA Guidelines Section 15163(d), prior to consideration of approval of the project, the County shall consider the previous EIR as revised by the Supplement to the EIR. The County must certify the Final Supplement to the EIR and adopt a mitigation monitoring and reporting program for mitigation measures identified in the report in accordance with the requirements of PRC Section 21081.

1.3 Organization

This document is organized as follows:

Chapter 1: Introduction provides a review of the Quarry project approved by the Sonoma County BOS, and explains how it varies from the project and alternatives examined in the Final EIR. The Introduction briefly describes the modifications to mitigation measures and Use Permit COA now being proposed by the Applicant. This chapter also reviews the CEQA requirements for a Supplemental EIR.

Chapter 2: Project Description provides a thorough description of the Applicant's proposed modifications to the Use Permit COA, and explains how the actions that would be enabled by these changes differ from the approved Quarry project.

Chapter 3: Environmental Setting, Impacts, and Mitigation Measures includes an update to the environmental and regulatory setting presented in the Final EIR, and provides an analysis of the potential for the proposed modifications to the Use Permit COA to result in a new or more severe environmental impact than those identified in the Final EIR. Chapter 3 includes separate sections for six environmental topics, where preliminary analysis indicated that the proposed Use Permit modifications may have the potential to result in a new or substantially more severe significant impact: Geology, Soils, and Seismicity (Section 3.1); Hydrology and Water Quality (Section 3.2); Biological Resources (Section 3.3) Transportation and Traffic (Section 3.4); Hazardous Materials (Section 3.5) and Cultural Resources (Section 3.6). Consideration of other environmental topics covered by CEQA is included in Section 3.7.

In Chapters 2 and 3, where changes to the text of the adopted COA are proposed (by the Applicant) or specified (in mitigation measures), additions to the text are <u>underlined</u>.

1.4 References

ESA, 2010. *Memorandum, ESA to Sonoma County PRMD, subject: Roblar Road Quarry Alternative Haul Route Alignment.* October 19, 2010.

This page intentionally left blank

CHAPTER 2
Project Description

2.1 Introduction

On December 14, 2010 the Sonoma County Board of Supervisors (Board) certified a Final Environmental Impact Report (Final EIR) for the Roblar Road Quarry, and thereafter approved the Use Permit (PLP03-0094) and adopted the Conditions of Approval (COA) for the development, operation, and eventual reclamation of the Quarry (Sonoma County, 2010a, 2010b). Many of the COA are based on and implement mitigation measures identified in the Final EIR to reduce or avoid significant impacts of Quarry construction and operation.

In July 2016, the Applicant, John Barella Land Investments, submitted an application to the Sonoma County Permit and Resource Management Department (PRMD) to modify several of the approved COA. The Applicant requests that the Board approve a revised Use Permit that modifies previously approved Conditions 44, 49, 59, 101, and 133 (the proposed project) as discussed in more detail below.[1]

2.2 Project Background

The Final EIR examined a range of alternatives to the Quarry project as originally proposed. Alternative 2: Alternative Haul Route/Contracted Sales Only, as described and analyzed in the Final EIR, included the development of two private haul roads, Access Road 1 and Access Road 2, in order to avoid physically constrained segments of Roblar Road. Alternative 2 included a restriction on the Quarry to allow only "contracted sales" for Quarry products, so that the haul route could be specified in sales contracts, and also prohibited Quarry trucks from traveling on Roblar Road east of the Quarry.

The Quarry project approved by the Board is a modified version of Alternative 2, referred to as "Modified Alternative 2," which eliminated the development of one of the proposed private off-road segments (Access Road 1), and instead specified the use of Roblar Road by haul trucks from the originally proposed Quarry driveway to the second proposed private off-road segment (Access Road 2), a distance of approximately 1.6 miles. Under this alternative, no Quarry trucks can travel east on Roblar Road from the Quarry.

[1] Those Conditions that implement mitigation measures from the Final EIR are referred to below as "Condition/ Mitigation Measure."

Figure 2-1, **Project Location and Approved Haul Route**, shows the Quarry site and haul route approved as Modified Alternative 2. **Figure 2-2**, **Approved Haul Route Detail**, provides a detail of the approved haul route, from the Quarry driveway to Access Road 2 and Valley Ford Road. Under Modified Alternative 2, Quarry site development, operations, and reclamation are the same as the Quarry project as originally proposed and analyzed in the Final EIR, including the requirement that 100% of materials produced would be sold under contract, such that the haul route would be specified in the contract, and no Quarry haul trucks would travel to/from the Quarry via Roblar Road east of the Quarry.

2.3 Project Description

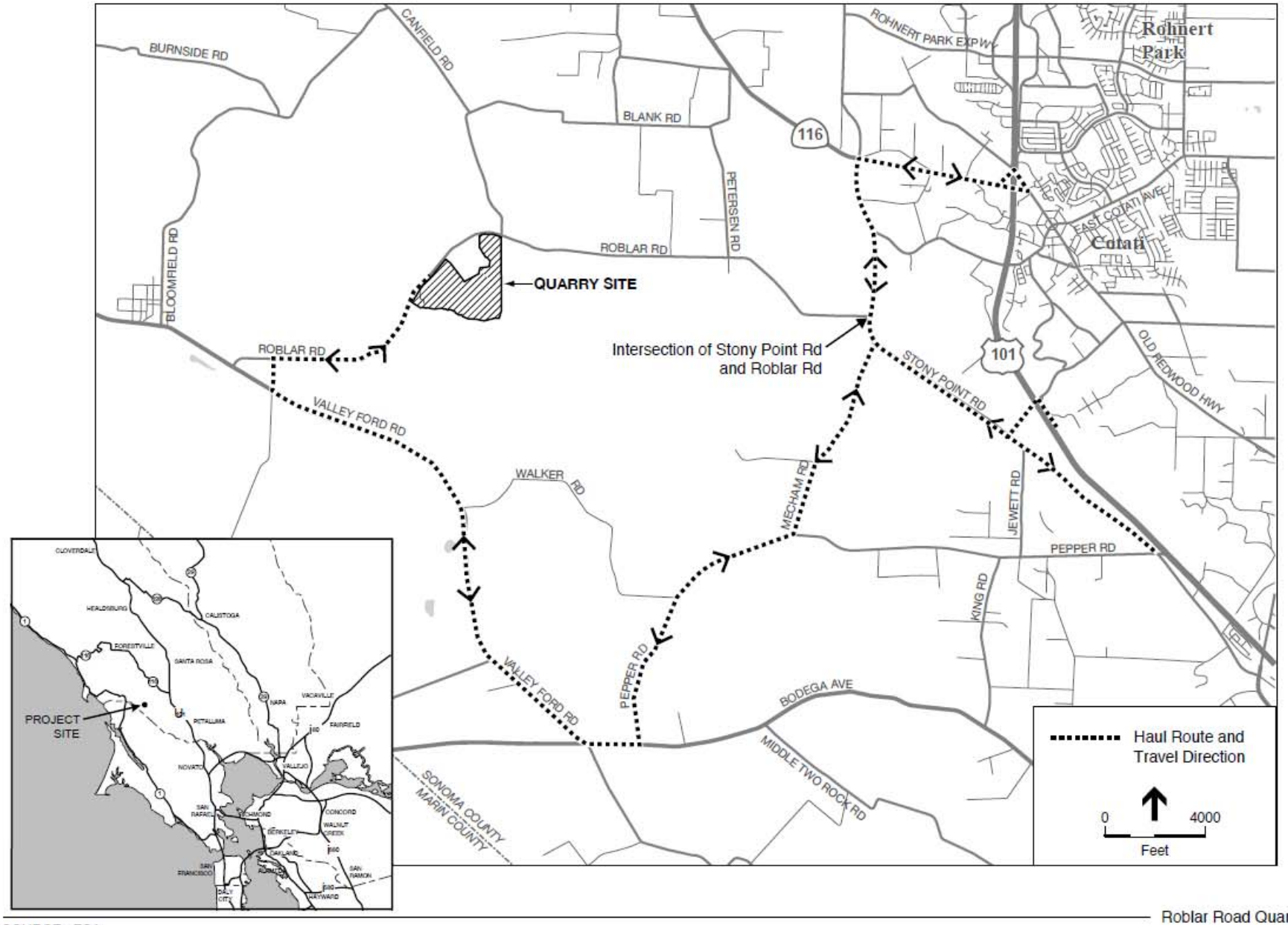
The Applicant states that modifications to the Use Permit are necessary to resolve conflicts between Conditions, to make implementation of Conditions feasible, and/or to reduce potential impacts associated with their implementation. These modifications include changes to five Conditions:

- Condition/Mitigation Measure 44 would be revised to allow for a different signalization design of the intersection of Roblar Road and Stony Point Road than that designed and approved by the County in 2005;

- Condition/Mitigation Measure 49 and Condition 59 would be modified to change the existing requirements for the reconstruction and widening of the approximately 1.6-mile segment of Roblar Road west of the Quarry driveway which would be utilized by haul trucks; and

- Condition 101 and Condition/Mitigation Measure 133, which pertain to protection of wetlands and riparian areas, would be modified to allow the realignment and creation of a new Americano Creek channel due to the widening of Roblar Road, requiring encroachment into wetland and riparian areas.

The proposed modifications are described in more detail below. Proposed modifications to Condition/Mitigation Measure 44 are discussed under “Proposed Changes to the Design for Signalization of the Stony Point Road/Roblar Road Intersection.” Proposed modifications to Condition/Mitigation Measure 49 and Condition 59 are discussed under “Reconstruction and Widening of Roblar Road.” Proposed modifications to Condition 101 and Condition/Mitigation Measure 133 are discussed under “Relocation of Americano Creek and Other Wetland Disturbance.” None of the proposed changes would affect operations of the approved Quarry. County staff also proposes a modification of Condition 133 to clarify that the setback requirements for critical habitat that are designated in the General Plan do not apply retroactively to previously reviewed and approved mining sites.

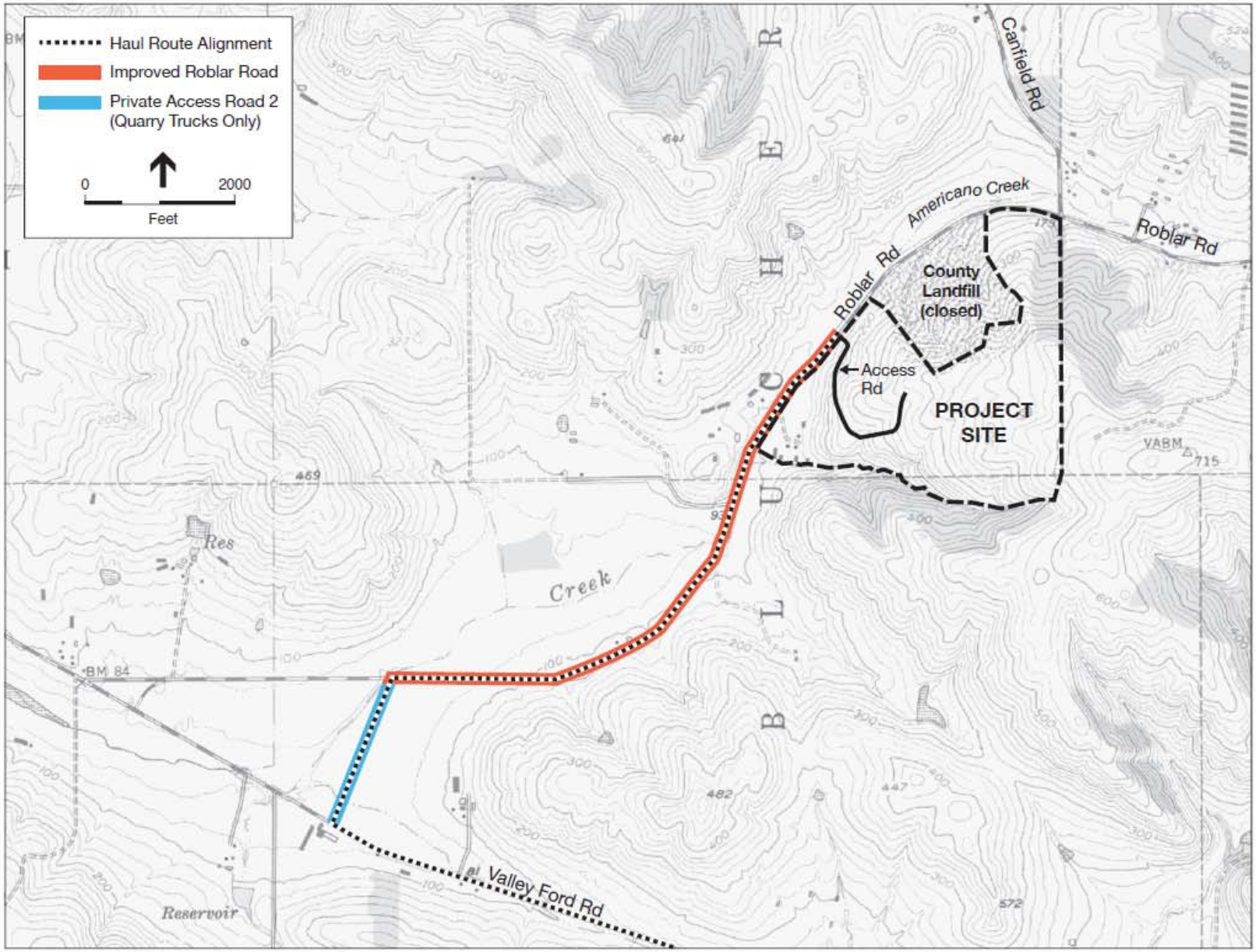


SOURCE: ESA

Roblar Road Quarry . 160752

Figure 2-1

Project Location and Approved Haul Route



SOURCE: USGS; ESA

Roblar Road Quarry . 160752

Figure 2-2
Approved Haul Route Detail

2.4 Proposed Changes to the Design for Signalization of the Stony Point Road/Roblar Road Intersection

Condition/Mitigation Measure 44 implements Final EIR Mitigation Measure E.1, which was identified as necessary to reduce level of service impacts to the Stony Point Road/Roblar Road intersection to less than significant. Condition/Mitigation Measure 44 is written as follows:

> **44.** Prior to the commencement of mining, the Applicant shall enter into an improvement and reimbursement agreement with the DTPW [the Sonoma County Department of Transportation and Public Works] and install a signal at the Stony Point Road/Roblar Road intersection. The Applicant shall have plans prepared for the work in conformance with the County's preliminary design plans, including widening all approaches to the intersection, including shoulders, lengthening the northbound left-tum lane, and adding a southbound left turn lane (for access to the driveway across Roblar Road). The signal shall be designed in accordance with Caltrans guidelines, subject to review and approval by DTPW. An offset of the payment of traffic mitigation fees may be considered.

The current configuration of this intersection is shown in **Figure 2-3**, **Stony Point Road/Roblar Road Intersection: Current Conditions**. It is a "T" intersection, where Roblar Road ends at Stony Point Road. There is currently a stop sign on Roblar Road at the intersection, while Stony Point Road is not signalized. There is a private driveway opposite of Roblar Road on the east side of Stony Point Road at the southern end of the intersection. The historic Washoe House stands on the northwest corner of the intersection.

Stony Point Road is a primary arterial on level terrain within the vicinity of its intersection with Roblar Road, with a posted speed limit of 55 mph. It consists of two 12-foot travel lanes, one 10-foot northbound left-turn lane, and 4-foot paved shoulders in the immediate vicinity of the intersection. Beyond the immediate vicinity of the intersection, both north and south, Stony Point Road has 8-foot shoulders. The existing turn lane is about 50 feet long. Stony Point Road is a proposed Class 2 bicycle facility in the 2010 Sonoma County Bicycle and Pedestrian Plan (Sonoma County, 2010c), and the roadway is striped and signed accordingly from Mecham Road north to the Santa Rosa City limits. Roblar Road is a secondary arterial with a posted speed limit of 45 mph, and is also a proposed Class 2 bicycle facility. In the vicinity of the intersection, Roblar Road consists of two 12-foot travel lanes with one to one and a half foot paved shoulders. These narrow shoulders do not currently meet Class 2 bicycle lane standards. Eastbound Roblar Road widens at the intersection to provide a short right-turn lane of about 30 feet in length.

The County's preliminary design plans for the intersection referenced in Condition/Mitigation Measure 44 were the subject of an Initial Study/Mitigated Negative Declaration (IS/MND, Sonoma County PRMD, 2005). The intersection design was approved and the MND adopted by the County in 2005. **Figure 2-4**, **County Preliminary Design for Stony Point Road/Roblar Road Intersection Signalization**, is taken from that 2005 document. The County's preliminary design includes the following features:

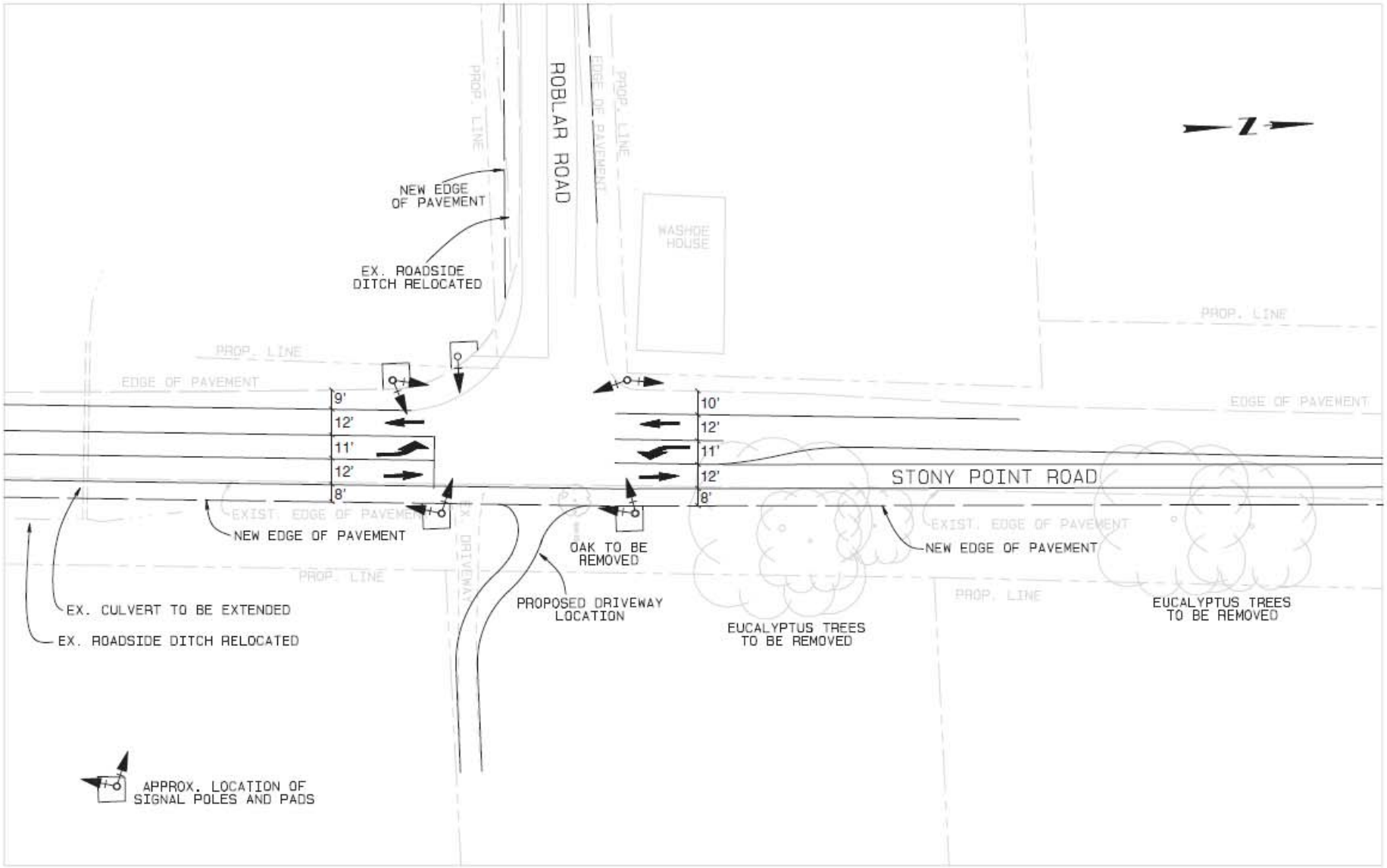
- Signal lights and associated facilities would be installed to create a four-way signalized intersection;

Roblar Road Quarry . 160752

SOURCE: Google Earth; ESA

Figure 2-3

Stony Point Road/Roblar Road Intersection: Current Conditions



SOURCE: Sonoma County PRMD, 2005

Roblar Road Quarry . 160752

Figure 2-4

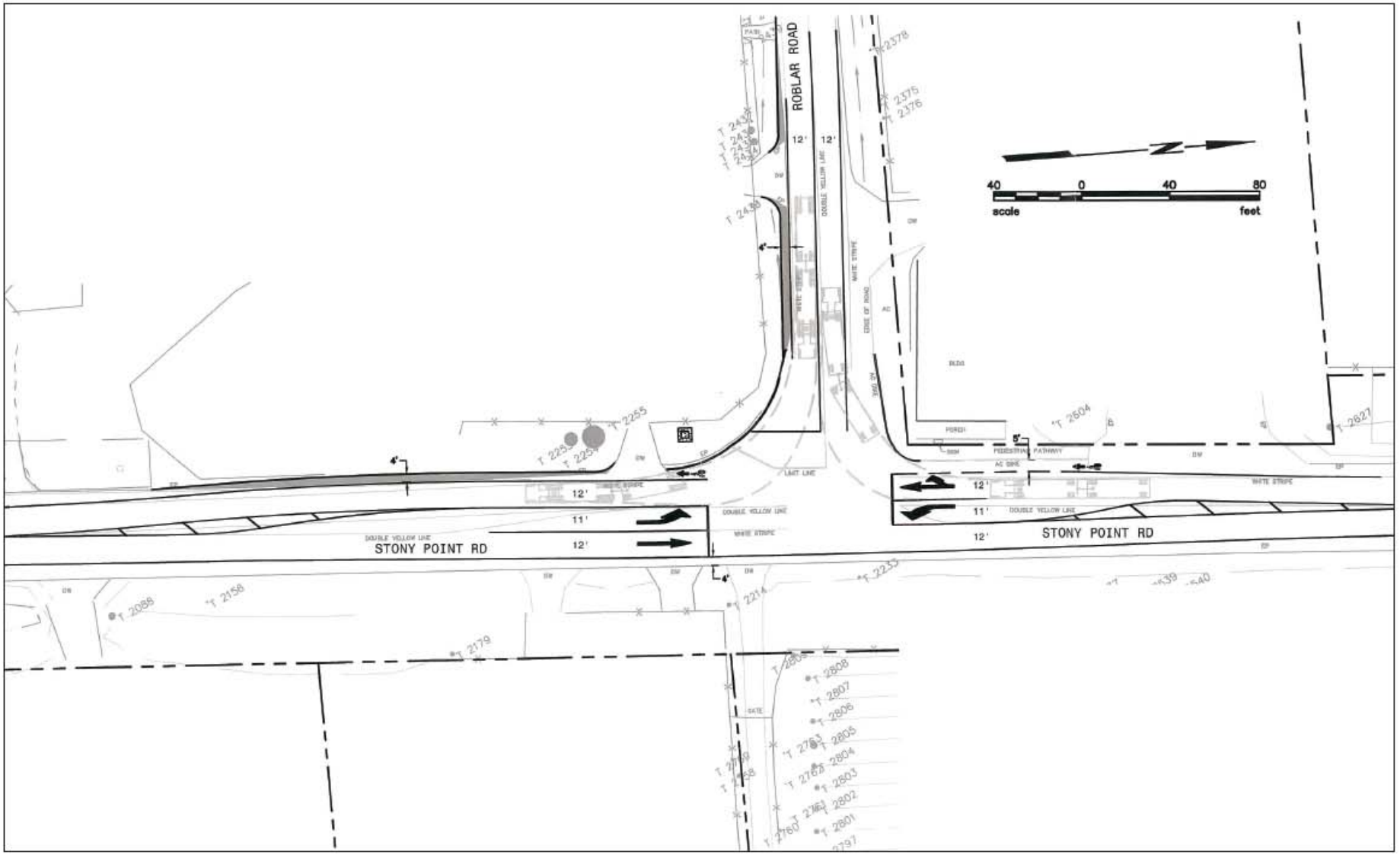
County Preliminary Design for Stony Point Road/Roblar Road Intersection Signalization

- The existing northbound left-turn lane on Stony Point Road would be lengthened to increase storage capacity and deceleration length, and widened from 10 feet to 11 feet;
- Road shoulders at the intersection would be widened to eight feet on Stony Point Road and six feet on Roblar Road;
- The widening of Stony Point Road would extend for a distance of approximately 1,000 feet south from the intersection and 500 feet north;
- Southbound Stony Point Road would include a left-turn lane for the driveway opposite Roblar Road. The driveway would be relocated to the north of its current location to align with Roblar Road on the opposite side of the intersection;
- The existing roadside ditch on the eastern side of Stony Point Road would be filled and a new ditch would be graded farther east. The widening would occur only on the east side of the road: the edge of pavement on the west side of the road would remain the same due to the proximity of the historic Washoe House at the northwest corner of the intersection;
- The two twelve-foot travel lanes on eastbound Roblar Road for turning left and right at Stony Point Road would be maintained;
- Widening of Roblar Road would extend approximately 260 feet to the west. Roadside ditches would be filled and regraded to accommodate the widening;
- Bicycle lanes are not specified, but the width of the shoulders in the preliminary design would accommodate bicycle lanes with widths of 8 – 10 feet in each direction.

The Applicant indicates that the County's preliminary design for improvements at this intersection would impact vegetated drainage features outside the paved and/or hardscaped areas, and may adversely affect biological habitat for sensitive species.[2] The Applicant instead proposes a modified design that can generally be accomplished within the existing paved and/or hardscaped area, thus minimizing impacts to adjacent vegetated drainage features and potential biological habitat.

The Applicant's proposed design for the intersection is shown in **Figure 2-5**, **Proposed Design for Stony Point Road/Roblar Road Intersection Signalization**. The Applicant's design includes some, but not all, of the improvements included in the County's approved preliminary design (**Table 2-1**). The Applicant's proposed design includes installing 4-way signal lights, paving of some of the existing rocked shoulders, and shifting and re-striping lane geometries to maintain the existing 12-foot-wide travel lanes and to create 11-foot-wide left turn lanes in both directions on Stony Point Road. The proposed design also includes paved shoulders in both directions on Stony Point Road having a minimum width of four feet intended for use by bicyclists, lengthening the northbound left turn lane and adding a southbound left turn lane, and widening the paved shoulder on the west side of Stony Point Road, south of the intersection. The proposed design does not include relocating the existing driveway on the east side of Stony Point Road. The Applicant is requesting modification of Condition/Mitigation Measure 44 to allow the proposed design, but has not provided proposed changes to the text of Condition/Mitigation Measure 44.

[2] The 2005 IS/MND identified mitigation measures to reduce potential impacts to wetlands and special status species to less than significant.



SOURCE: BKF, 2016

Roblar Road Quarry . 160752

Figure 2-5

Proposed Design for Stony Point Road/Roblar Road Intersection Signalization

TABLE 2-1
COMPARISON OF INTERSECTION DESIGN FEATURES

Design Feature	Existing Condition	County Preliminary Design-Condition/ Mitigation Measure 44	Applicant's Proposed Design
Traffic Control	Stop sign on Roblar Road. No controls on Stony Point Road	4-way traffic signal, including signal for driveway opposite Roblar Road	4-way traffic signal, including signal for driveway opposite Roblar Road
Travel Lanes: Stony Point Road	One 12-foot lane in each direction	Same as Existing	Same as Existing
Travel Lanes: Roblar Road	One 12-foot lane in each direction	Same as Existing	Same as Existing
Paved Shoulders: Stony Point Road (each side of road)	4 feet	8 to 10 feet	minimum 4 feet
Paved Shoulders: Roblar Road (each direction)	1 to1.5 feet	6 feet	3 feet
Bike Lanes (each direction)	None	8 – 10 feet	4-foot-wide paved shoulder in each direction on Stony Point Road for use by bicyclists
Left Turn Lanes: Stony Point Road	Southbound: None; Northbound: 10 feet wide and 50-foot-long stacking length	Southbound: 11 feet wide and 20-foot-long stacking length; Northbound: 11 feet wide and 90-foot-long stacking length The taper lengths (approach and bay) and deceleration lane lengths shall be designed in accordance with Caltrans standards.	Southbound: 11 feet wide and 19-foot-long stacking length; Northbound: 11 feet wide and 50-foot-long stacking length The taper lengths (approach and bay) and deceleration lane lengths shall be designed in accordance with Caltrans standards.
Turn Lanes: Roblar Road	Single lane widens to accommodate turns	Same as Existing	Same as Existing
Driveway on east side of intersection	at south end of intersection	relocated north, opposite Roblar Road	not relocated
Drainage Ditches	Existing ditch on east side of Stony Point Road and on portions of Roblar Road	Portions of existing ditches on Stony Point Road filled and relocated	Existing ditches not filled

SOURCE: Sonoma County PRMD, 2005; BKF Engineers, 2016, W-Trans 2015.

The County's preliminary design for the intersection did not include a southbound right turn lane, and Final EIR and Resolution No. 10-0903 explained that a southbound right turn lane may not be feasible because of the potential need for the applicant to acquire right-of-way from private landowners along Stony Point Road. Resolution No. 10-0903 therefore included a Statement of Overriding Considerations that outweighed the cumulatively significant impact that would result if the southbound right turn lane proved infeasible.

The proposed design does not include a dedicated right-turn lane from southbound Stony Point Road. The Applicant considers a dedicated right-turn lane to be infeasible, because the historic Washoe house prohibits its development to the west, and the presence of a vegetated drainage ditch constrains the shifting of lanes eastward.

2.5 Reconstruction and Widening of Roblar Road

COA Condition/Mitigation Measure 49 implements Final EIR Mitigation Measures E.3a and E.4a, which were determined to be necessary to mitigate to less-than-significant the Quarry project's impacts on traffic safety, including safety for pedestrians, bicyclists, and vehicles. These impacts would be caused by the addition of Quarry haul trucks to the portion of Roblar Road between the Quarry entrance and Access Road 2 (Figure 2-2). This segment of Roblar Road does not currently meet County road design standards. Condition/Mitigation Measure 49 currently reads as follows:

> **49.** Prior to the commencement of mining, the Applicant shall obtain easements/right of way (if necessary) and improve Roblar Road (between the on-site Quarry access road and Access Road 2) to meet current County road design standards, including, but not limited to, two 12-foot-wide vehicle travel lanes and two six-foot-wide shoulders with a traffic index of 10.5, and associated striping/signage to meet Class II bike facilities.

Condition 59 repeats portions of Condition/Mitigation Measure 49, but adds other features and design details to the required road reconstruction:

> **59.** The Applicant shall construct or install improvements including the following:
>
> a. Widen, reconstruct and/or overlay, as necessary, Roblar Road between the project site entrance and Private Access Road 2 in order to create the improved roadway described below. Road width shall be measured from edge of pavement to edge of pavement, shall be a minimum of width of 36 feet, and shall include:
>
> 1) Two 12-foot-wide travel lanes;
>
> 2) Two six-foot-wide paved shoulders;
>
> 3) Two-foot-wide shoulder backing at the edge of pavement;
>
> 4) Construct left-turn channelization at the intersection with Access Road 2;
>
> 5) The roadway alignment and channelization shall be designed in conformance to Caltrans standards for a design speed of 45 miles per hour. As determined by DTPW, the design speed may be reduced in constrained areas with the appropriate signing;
>
> 6) Depending on the existing conditions, the improvements may require overlay, restriping, metal beam guardrail, and overhead utilities relocation, as necessary;
>
> 7) The Applicant shall mill, repair and overlay the existing pavement as necessary to make a smooth transition between the existing pavement and the new pavement.

The Applicant is proposing several changes to the design standards contained in Condition/ Mitigation Measure 49 and Condition 59, based on their contention that these conditions are impracticable, infeasible, and unnecessary. Specifically, the Applicant states that the Roblar Road prescriptive right-of-way (ROW) is not wide enough to accommodate the specified road width, that

it is unable to obtain sufficient land to expand the required ROW, and that the proximity of Americano Creek and other wetlands along the road constrains road widening. The Applicant has proposed an alternative road design that does not meet the standards stated in Condition/Mitigation Measure 49 and Condition 59. The Applicant's alternative design differs from that described in the Conditions as follows:

- reduce travel lane width from 12 feet to 11 feet;[3]
- reduce width of paved shoulders from six feet to three feet;
- total paved width would be reduced from 36 to 28 feet, widening to 38 feet at the left turn channelization at the intersection of Roblar Road and Access Road 2 (the left turn lane would be ten feet wide);
- the straightening of the "S" curve about one mile south of the Quarry driveway would not occur, though this segment with the S curve on Roblar Road would also be widened as described above;
- at an existing culvert structure, the paved width would remain the same (28 feet), with 1-foot rocked shoulders on each side for a total roadway width of 30 feet over the culvert.

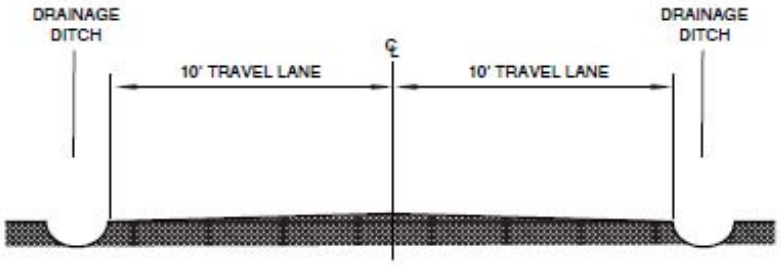
Figure 2-6, **Roblar Road – Existing**, **Currently Required**, **and Proposed Road Cross-Sections**, shows typical cross sections of the existing Roblar Road,[4] the design specified in Condition/Mitigation Measure 49 and Condition 59, and the Applicant's proposed design. **Figures 2-7b** through **2-7h**, **Proposed Roblar Road Improvements**, show plan-view drawings of the proposed road design. **Figure 2-7a**, **Index Map to Proposed Roblar Road Improvements Figures**, shows the location of the road segments depicted in Figures 2.7b through 2.7h.

Figures 2.7b through 2.7f show road segments 1 through 9, starting from the intersection of Roblar Road with Access Road 2 and continuing east to the point where Access Road 1 would have terminated under the original (unmodified) Alternative 2 described in the Final EIR. These figures show, for comparative purposes, the Applicant's proposed roadway widening design (in green ink), compared to the conceptual design for road widening from the Final EIR (shown in orange ink), based on Final EIR Figures V-5 through V-9. The existing S-curve is shown in Figures 2.7c and 2.7d, which show the area that would have been affected by the straightening of the S-curve, consistent with Condition 59, and the Applicant's proposed design involving retaining the S-curve but widening the roadway through this section.

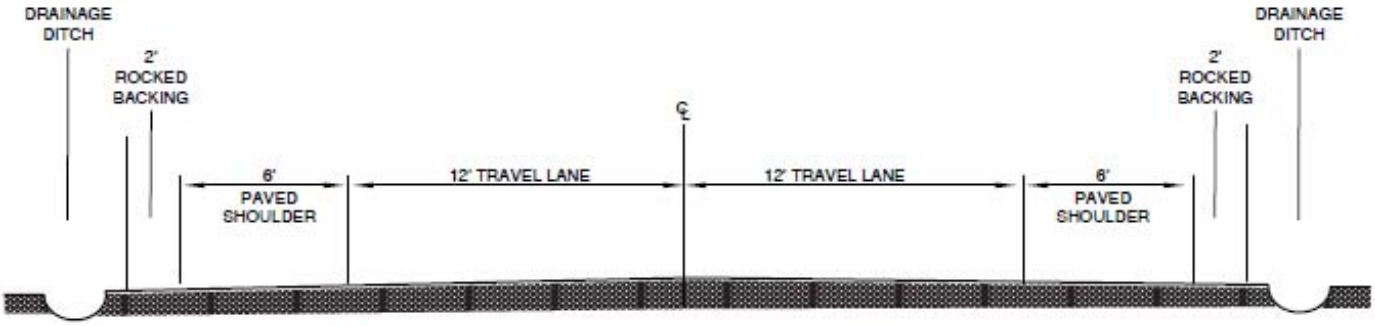
Figures 2-7f through 2.7h show road segments 10 through 14, which is the portion of Roblar Road that would be widened under Modified Alternative 2, but which would not have been widened under the original version of Alternative 2 described in the Final EIR (since this section of Roblar Road would have been by-passed by Access Road 1, which was found to be infeasible).

[3] The Applicant states that it would also be feasible to keep travel lane width at 12 feet and reduce widths of paved shoulders to two feet, or rocked backing from two feet to one foot.

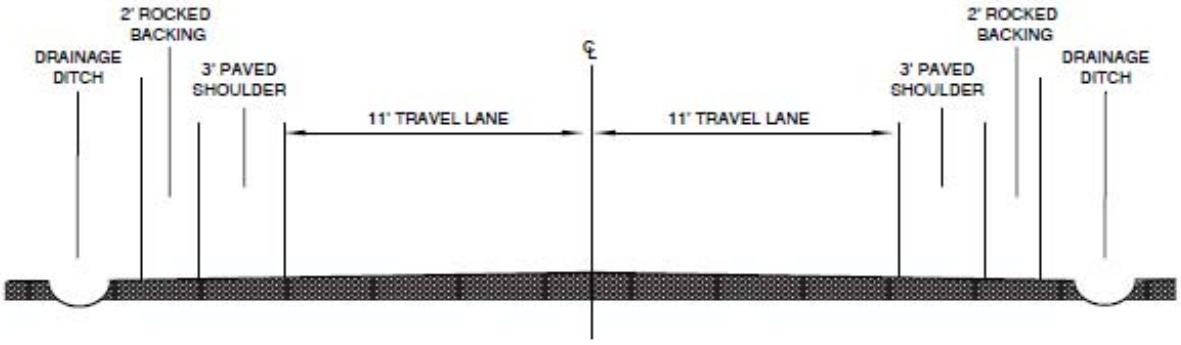
[4] The Final EIR notes (p. IV.E-3) that Roblar Road contains approximately 10-foot-wide travel lanes between Canfield Road and Valley Ford Road, with some stretches as narrow as eight and a half to nine feet in width, with no shoulders, and that it is bordered by open drainage ditches in some locations.



A. Existing Conditions: 20' Paved Width



B. Currently Required per Conditions 49 and 59: 36' Paved Width



C. Proposed – 28' Paved Width

SOURCE: ESA

Roblar Road Quarry . 160752

Figure 2-6

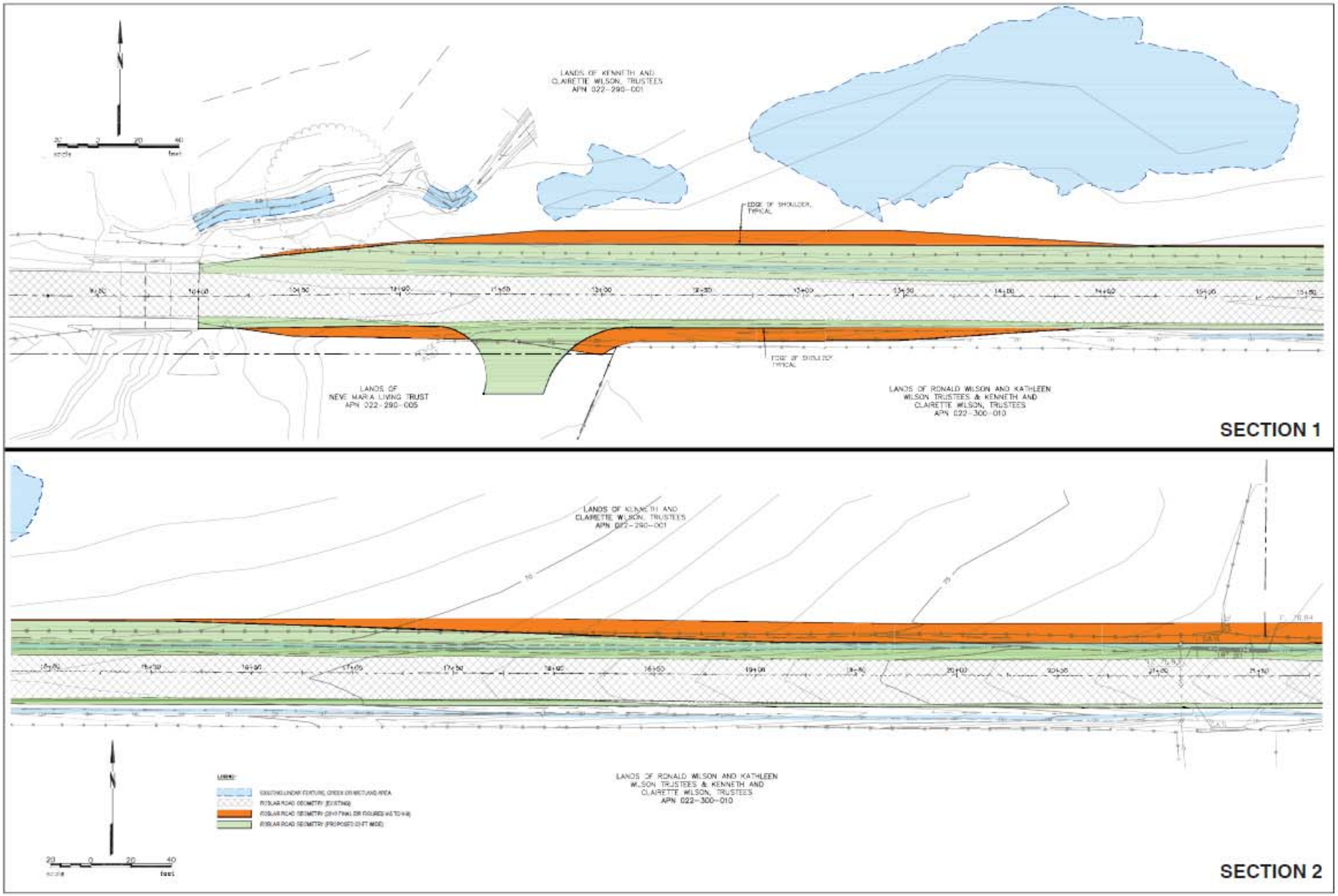
Roblar Road – Existing (A), Currently Required (B), and Proposed (C) Road Cross-Sections

SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7a

Index Map to Proposed Roblar Road Improvements Figures

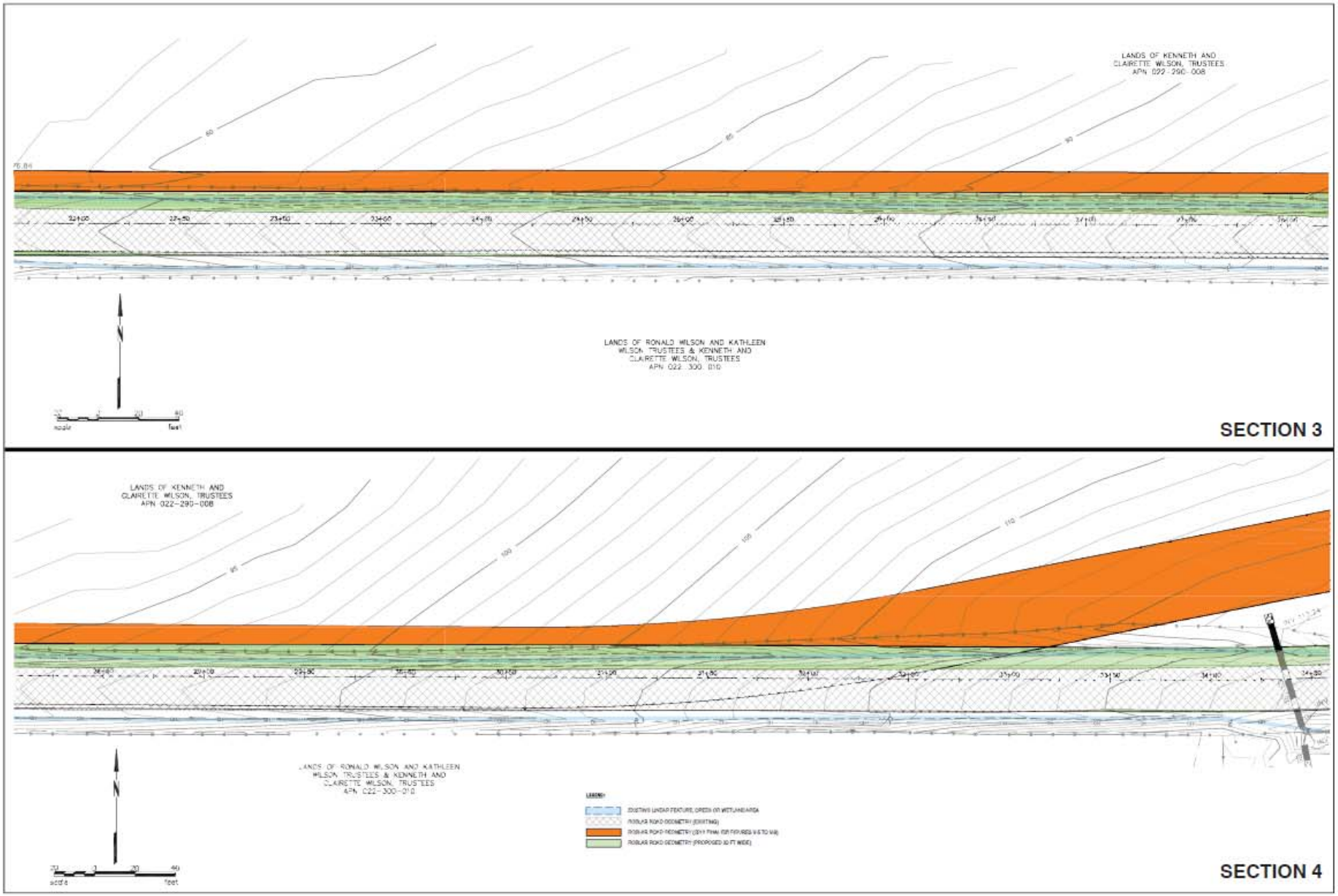


SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7b

Proposed Roblar Road Improvements,
Sections 1 and 2

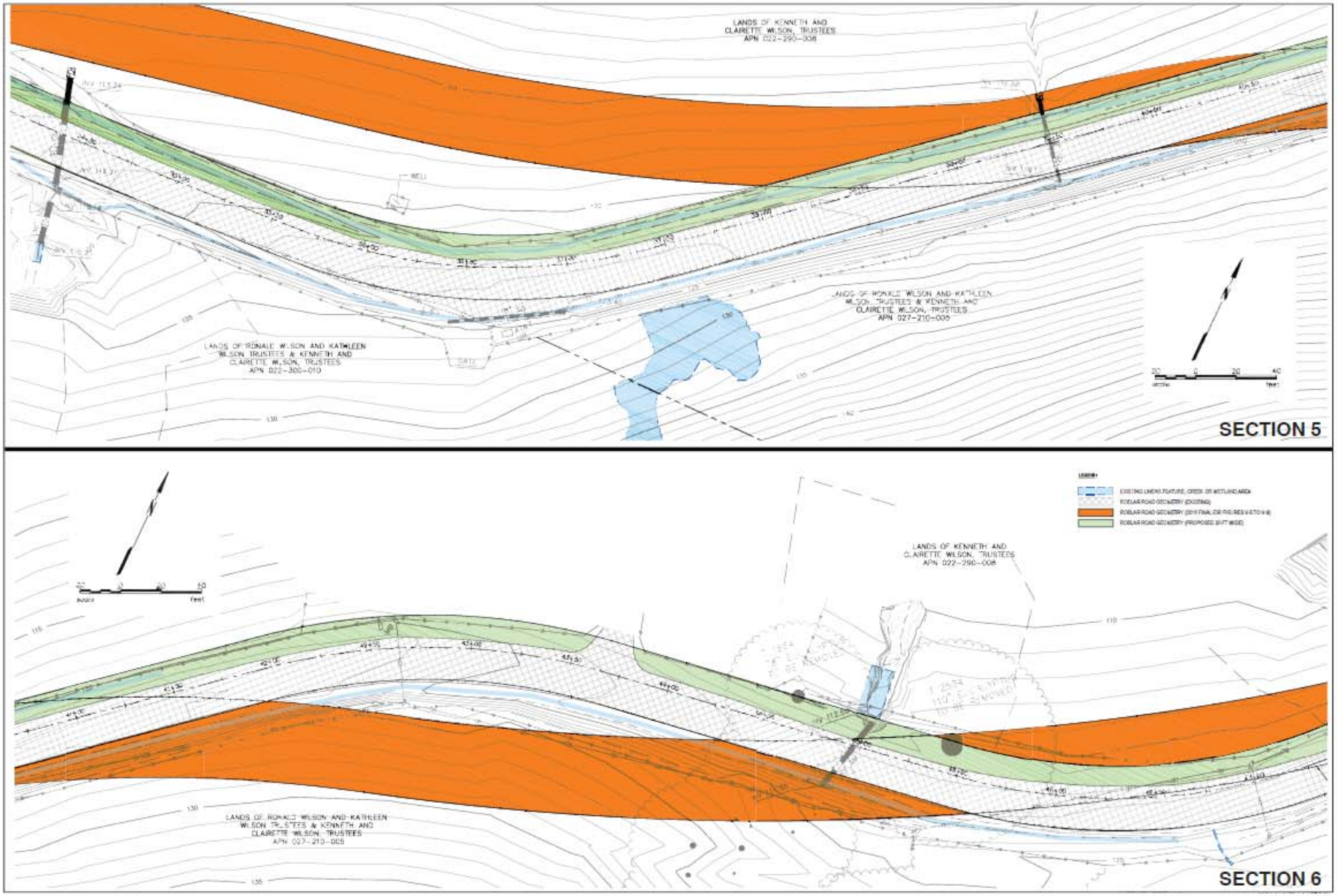


SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7c

Proposed Roblar Road Improvements, Sections 3 and 4

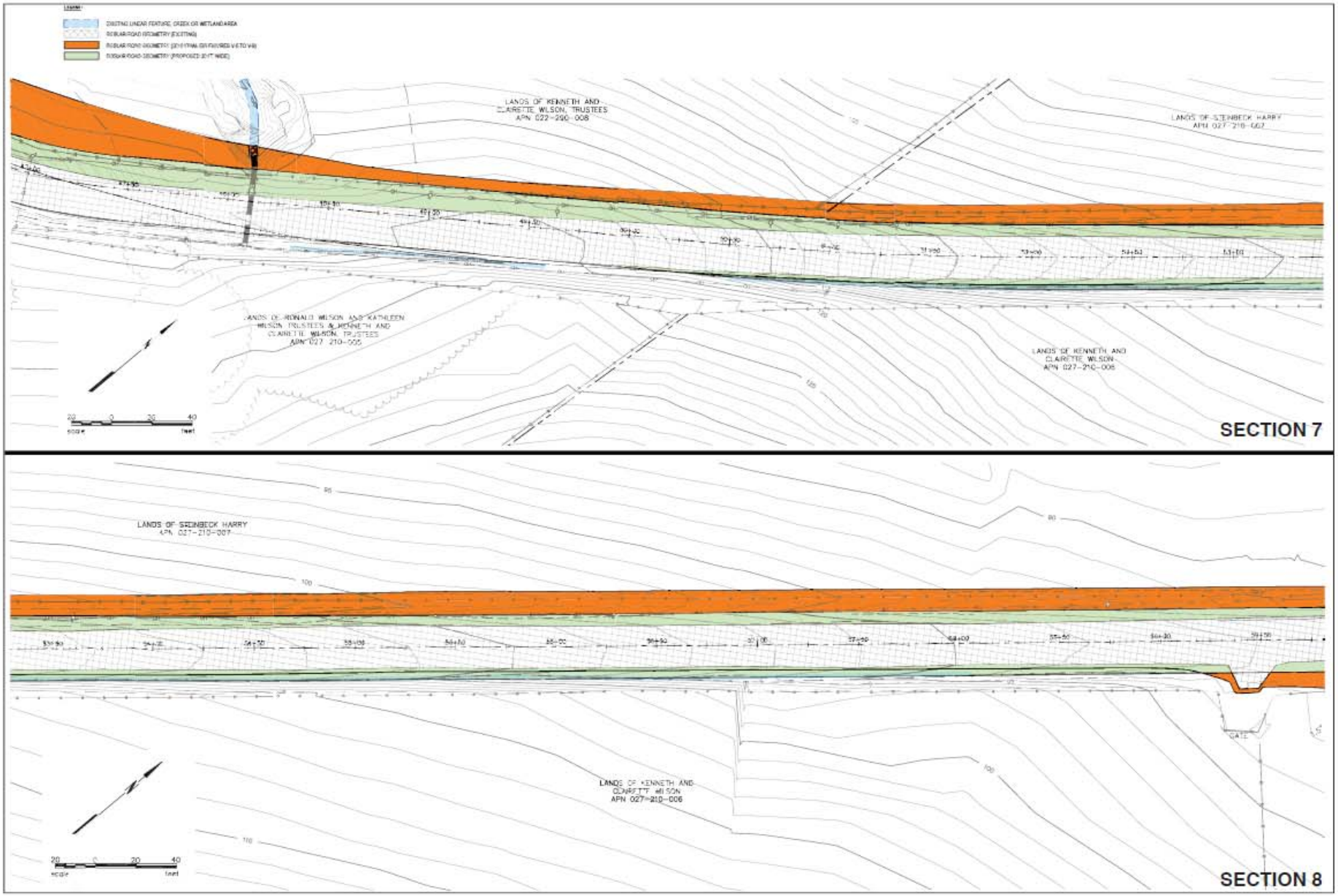


SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7d

Proposed Roblar Road Improvements, Sections 5 and 6

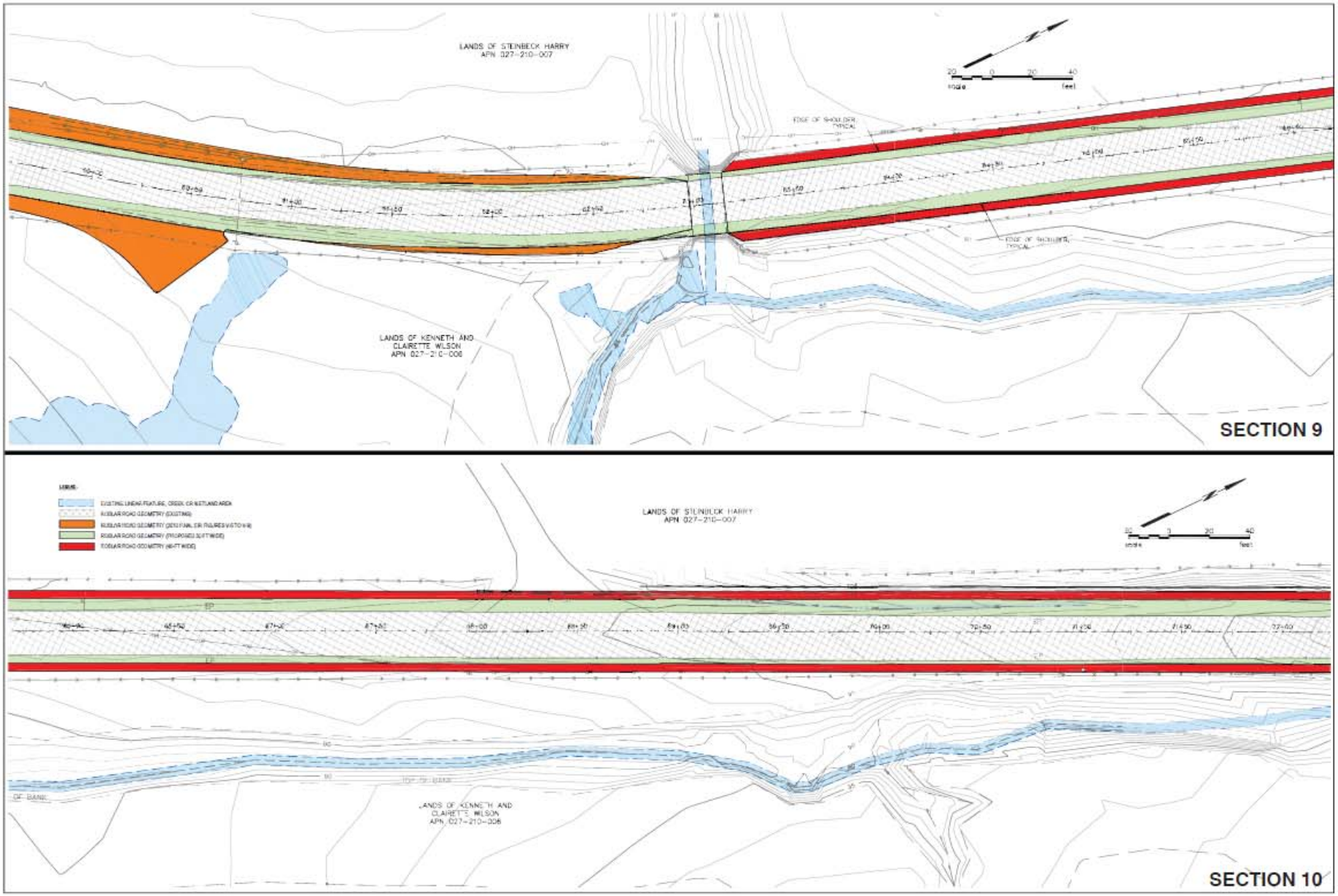


SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7e

Proposed Roblar Road Improvements, Sections 7 and 8



SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7f

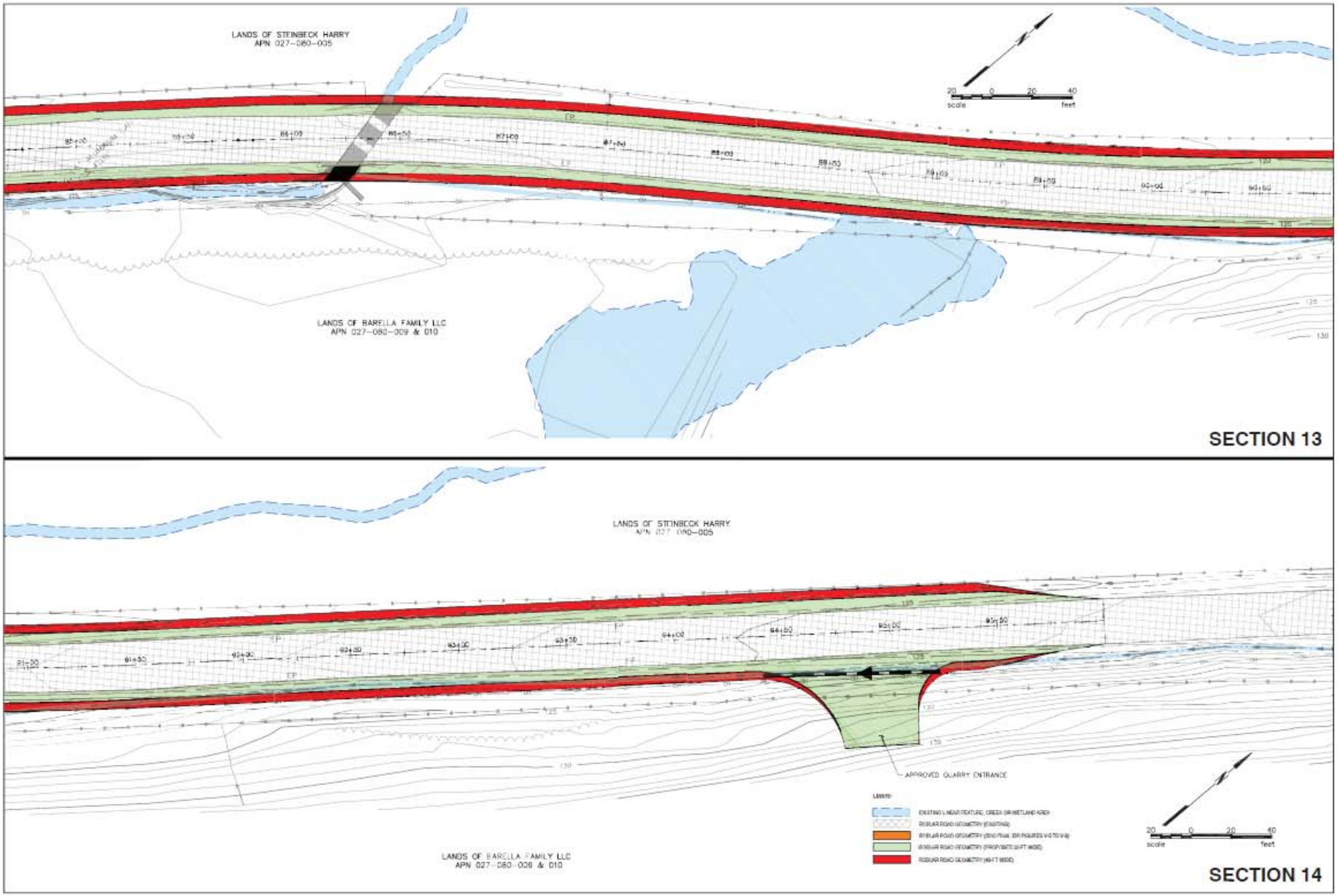
Proposed Roblar Road Improvements,
Sections 9 and 10

SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7g

Proposed Roblar Road Improvements,
Sections 11 and 12



SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-7h

Proposed Roblar Road Improvements, Sections 13 and 14

These figures compare the Applicant's proposed design for roadway improvements (in green ink) with a conceptual 40-foot-wide roadway (in red ink), consistent with the design standards in Condition/Mitigation Measure 49 and Condition 59 (36-foot paved width with 2-foot of rock backing on each side of the road), as depicted in Figure 2-6(B).

The Applicant is requesting modification of Condition/Mitigation Measure 49 and Condition 59 to allow the Applicant to reconstruct and widen Roblar Road as described above, and shown in Figures 2-7b through 2.7h. The Applicant has not proposed specific revisions to the text of Condition/Mitigation Measure 49 and Condition 59.

2.6 Relocation of Americano Creek and Other Wetland Disturbance

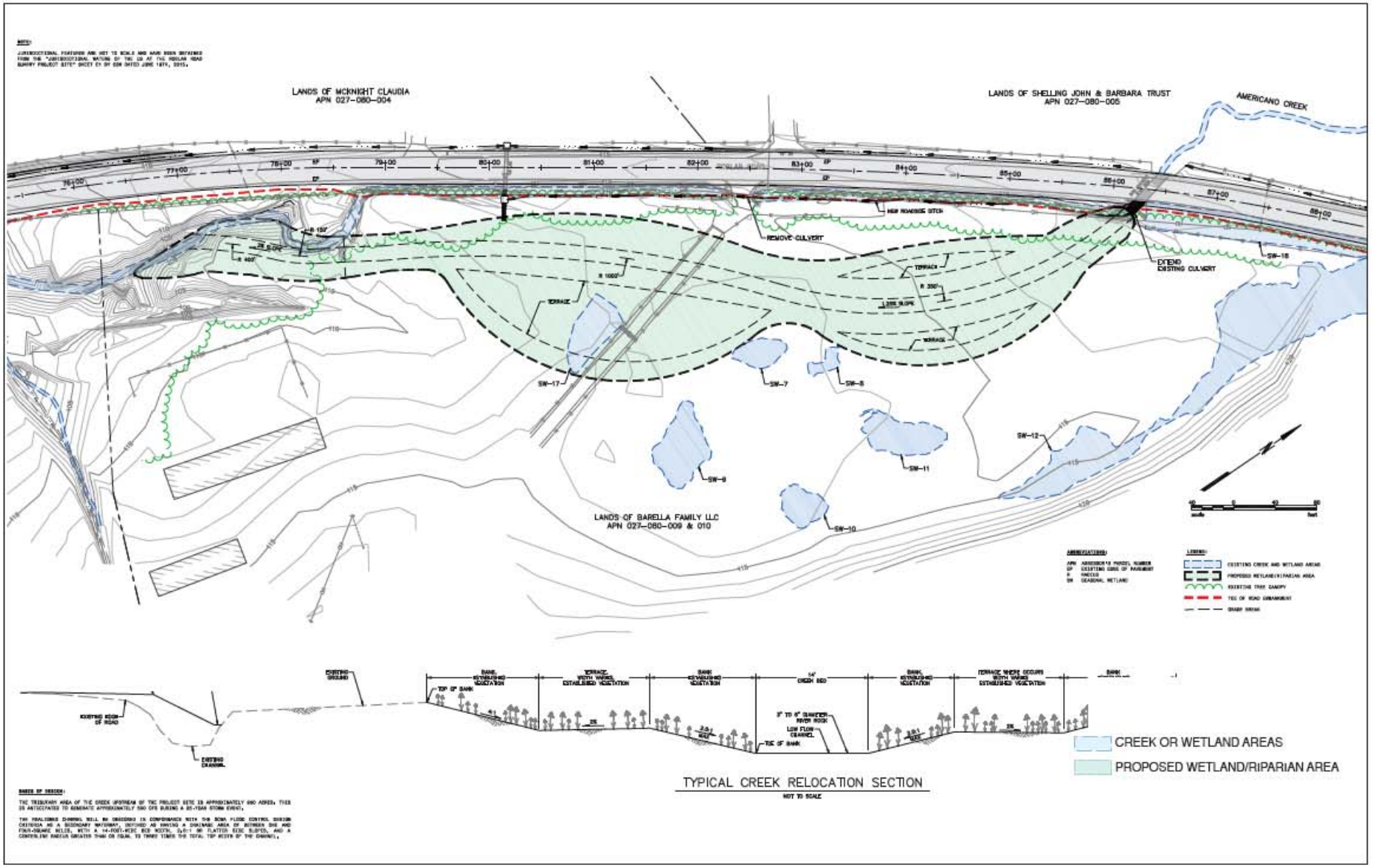
Several of the COA address impacts to waterways and other wetlands identified in the Final EIR. The Applicant is proposing to modify two of these, Condition 101 and Condition/Mitigation Measure 133, contending that they are infeasible or inconsistent with the version of the Quarry project that was approved (i.e., Modified Alternative 2). Condition 101 states that:

> **101.** Except for stream crossings, no grading or land disturbance shall occur within 50 feet of the top of banks of the waterways. Any waterway setbacks, including but not limited to building setbacks, grading setbacks, riparian corridor setbacks or biotic resources setbacks, shall be shown and noted on the grading plans. A construction fence must be placed along the most stringent waterway setback to prevent land disturbance adjacent to the waterways.

The Applicant states that this Condition is infeasible because the required widening of Roblar Road would necessarily encroach not only within 50 feet of Americano Creek, but into the Americano Creek channel itself, due to the inability to obtain right of way on the opposite side of the road. This would occur in the portion of Roblar Road abutting the Quarry site, beginning about 850 feet southwest of the intersection of the approved Quarry access road and continuing southwest for about 750 feet, as shown in **Figure 2-8**, **Proposed Relocation of Americano Creek**.

To enable the required widening of Roblar Road in this location, the Applicant proposes to relocate this section of Americano Creek into a new, constructed channel and associated constructed wetland and riparian habitat on the Quarry site, as shown in Figure 2-8. As described by the Applicant (Winfield, 2017[5]), the realigned channel would be approximately 935 feet long with a 14-foot-wide creek bed covering approximately 0.301 acre, including a 5-foot-wide low flow channel that meanders along the creek bottom, and approximately 0.450 acre of low flood terraces adjacent to the creek banks. The total footprint of the realigned Americano Creek channel and floodplain terraces would be approximately 1.84 acres. About 750 linear feet of the existing stream channel would be filled to accommodate the widening of Roblar Road, and about another 240 linear feet of stream channel would be cut-off from its water source, which would be diverted into the proposed new channel. In all, about 1,000 linear feet of existing stream channel would be affected by the proposed creek relocation.

5 This document is included as Appendix A.



SOURCE: BKF

Roblar Road Quarry . 160752

Figure 2-8

Proposed Relocation of Americano Creek

Realigning the creek channel would allow the establishment of a riparian corridor along both sides of the realigned creek. It would move the creek channel away from direct influence of road maintenance and other related activities that occur along this section of Roblar Road. The design for the realigned section of Americano Creek, prepared by the Applicant's biologist, would provide suitable areas for the development of seasonal wetland habitat along the channel bottom and in adjacent constructed flood terraces. The realigned channel and associated areas would be fenced off to prevent animal grazing. The Applicant's biologist expects that the vegetation cover in the flood plain terraces would develop within three to five years of completion of planting.

The proposed realignment of Americano Creek would move the length of the existing channel that is adjacent to Roblar Road onto the adjacent fallow fields, part of which is used for seasonal grazing. Most of the existing riparian habitat adjacent to the south side of the existing creek would remain. Only a portion of this riparian area would be removed to accommodate road widening and creek relocation, as shown in Figure 2-8. The Applicant's biologist expects that the riparian corridor would expand into the area between the existing corridor along the southern side of the creek and the realigned creek. In this area, grazing would not be allowed, and willows would be planted. Riparian species would also be planted along both banks of the realigned creek channel.

Seasonal wetland habitat developed on the flood plain terraces would supplement the seasonal wetlands currently on the lands adjacent to the location of the realigned channel. Seasonal wetland habitat is also expected to develop along the channel bottom of the realigned creek.

The proposed realignment of Americano Creek would occur during construction of the initial phase of the Quarry. Prior to construction of the new channel, the boundary of the construction impact area would be fenced to avoid impacts to the seasonal wetlands that occur in the vicinity of the northeastern end of the realigned creek channel where Americano Creek crosses beneath Roblar Road and onto the Quarry property.

The area of disturbance associated with construction and operation of the proposed creek realignment would be kept to a minimum and the sensitive areas outside the impact footprint of the creek realignment would be cordoned off using stakes and construction fencing to prevent inadvertent impacts to the avoided areas. The staking and fencing would be installed between the edge of the realigned Americano Creek boundary closest to the seasonal wetlands where the creek enters onto the Quarry property and between the edge of the footprint of the realigned creek and the existing riparian area along the creek.

Currently, thick Himalayan blackberry shrubs occur along much of the existing Americano Creek riparian corridor along the Quarry property. The Applicant proposes to cut the blackberry shrubs to ground level prior to planting of willows. Any native blackberry shrubs encountered along the existing riparian corridor would be left in place.

A combination of red willow, Pacific willow, and arroyo willow would be planted as cuttings along the realigned Americano Creek channel. Arroyo willow and Pacific willow, which have both tree and shrub growth forms, would be established along the lower part of the channel banks. Red willow, which has a tree growth form, would be planted along the top of the creek banks, and

between the realigned channel and the riparian corridor along the southeastern side of Americano Creek, along with scattered individuals of Pacific willow and arroyo willow.

Other species of trees and shrubs would also be planted in the area between the realigned creek channel and the existing riparian corridor along the existing Americano Creek, including California bay, wood rose, California rose, and native blackberry.

Condition/Mitigation Measure 133 implements Final EIR Mitigation Measure D.1b, which is required to mitigate impacts to jurisdictional wetlands and riparian habitat located along the southern boundary and the southwestern corner of the Quarry site. Ranch Tributary to Americano Creek flows roughly parallel to and just south of the Quarry site southern boundary, Americano Creek meanders through the southwestern part of the property, and there are several areas of seasonal wetlands on the valley floor adjacent to American Creek in this area (Figure 2-8). Condition/Mitigation Measure 133 requires the Applicant to:

> **133.** Avoid all potential jurisdictional wetlands and riparian habitat located along the southern boundary (i.e., Ranch Tributary) and the southwestern corner (i.e., seasonal wetlands on valley floor adjacent to Americano Creek) of the property. Prior to construction activities, the project Applicant shall take appropriate measures to protect the wetland and riparian habitat located in these areas. The following protection measures are to be included in the grading and Reclamation Plan:
>
> - Installation of exclusionary construction fencing along the southern property line as well as around the two seasonal wetlands identified on [Final EIR] Figure IV.D-1 to protect these features from all project construction and operation activities;
> - Implementation of measures to control dust in adjacent work areas (see comprehensive dust control program identified in Condition #161);
> - Maintenance of the hydrologic inputs (flow) to the seasonally wet area in the southwestern corner of the property.
> - The project Applicant shall maintain the minimum allowed 100-foot setback for Quarry mining operations from stream banks (Americano Creek and Ranch Tributary) and critical habitat areas designated in the Sonoma County General Plan (Chapter 26A, County Code).

The Applicant proposes that the County revise Condition 101 to read as follows:

> **101.** Except for stream crossings and the proposed realignment of Americano Creek, no grading or land disturbance shall occur within 50 feet of the top of banks of the waterways, as feasible. Any waterway setbacks, including but not limited to building setbacks, grading setbacks, riparian corridor setbacks or biotic resources setbacks, shall be shown and noted on the grading plans. A construction fence must be placed along the most stringent waterway setback outside of the construction zone to prevent land disturbance adjacent to the waterways.

The Applicant proposes that the County revise Condition/Mitigation Measure 133 to read:

> **133.** Avoid all potential jurisdictional wetlands and riparian habitat located along the southern boundary (i.e., Ranch Tributary) and the southwestern corner (i.e., seasonal

wetlands on valley floor adjacent to Americano Creek) of the property, as feasible. Prior to construction activities, the project Applicant shall take appropriate measures to protect the wetland and riparian habitat located in these areas. The following protection measures are to be included in the grading and Reclamation Plan, as feasible:

- Installation of exclusionary construction fencing along the southern property line as well as around the two seasonally wetlands identified on [Final EIR] Figure IV.D-1 to protect these features from all project construction and operation activities;
- Implementation of measures to control dust in adjacent work areas (see comprehensive dust control program identified in Condition 161);
- Maintenance of the hydrologic inputs (flow) to the seasonally wet area in the southwestern corner of the property.
- The project Applicant shall maintain the minimum allowed 100-foot setback for Quarry mining operations from stream banks (Americano Creek and Ranch Tributary) and critical habitat areas designated in the Sonoma County General Plan (Chapter 26A, County Code).

In addition to disturbance within and adjacent to the existing channel of Americano Creek, several areas of delineated wetland, indicated on Figure 2-8 as SW 7, SW-8, SW-9, SW-10, SW-11, SW-12, and SW-17 are within or in close proximity to the proposed constructed wetland. Some of these features may be within 100 feet of the area proposed to be graded to create new wetland, or within 100 feet of the approved Quarry driveway.

2.7 Required Approvals

The Applicant's proposal would require the following County approvals for the modified project:

- Approval of a modified Use Permit including revisions to COA 44, 49, 59, 101, and 133, including disturbance within a riparian corridor (Sonoma County Board of Zoning Adjustments);
- Approval of an environmental document (Sonoma County Board of Zoning Adjustments);
- 3836R Stream Roiling Permit if work occurs in flowing water (Sonoma County Board of Supervisors);

In addition, responsible and permitting agencies other than the lead agency may have some authority to carry out or approve a project or to approve a portion of the project for which the lead agency has prepared a CEQA document. A list of responsible and/or permitting agencies is included below. However, this list is not exhaustive and could include other agencies. While CEQA is not binding on federal agencies, any such agency may use the analysis in this document in order to assist with preparation of its own analyses required by federal law.

- Federal Clean Water Act Section 404 Dredge and Fill Permit (Army Corps of Engineers);
- Federal Clean Water Act Section 401 Water Quality Certification (Regional Water Quality Control Board for the North Coast Region);

- California Public Resources Code Section 1600 Streambed Alteration Agreement (California Department of Fish and Wildlife).

2.8 References

BKF Engineers, 2016. *Intersection Geometry Exhibit, Stony Point Road and Roblar Road, County of Sonoma, California*. Drawing, two sheets. July, 2016.

BKF Engineers, 2017. *Road Geometry Exhibit- Roblar Road, County of Sonoma, California*. Drawing, seven sheets. February 2017.

Sonoma County PRMD, 2005. *Mitigated Negative Declaration / Initial Study and Mitigation Monitoring Program: Signalization of Stony Point Road at Roblar Road.* Prepared for Sonoma County Department of Transportation & Public Works. October, 2005.

Sonoma County, 2010a. *Roblar Road Quarry Final Environmental Impact Report*.

Sonoma County, 2010b. *Board Conditions of Approval and Mitigation Monitoring Program for the Roblar Road Quarr*y. December 14, 2010.

Sonoma County, 2010c. *2010 Sonoma County Bicycle and Pedestrian Plan*. Adopted August 24, 2010.

W-Trans, 2015. Roblar Road/Stony Point Road LOS with Proposed Traffic Signal. Memorandum from F. Fitzsimons and B. Byrnes to E. Wade, BKF Engineers, October 6, 2015.

Winfield, Ted, Ph.D. 2017. *Conceptual Planting Plan for Realigned Americano Creek.* August 21, 2017. (Included in this document as Appendix A.)

This page intentionally left blank

CHAPTER 3
Environmental Setting, Impacts, and Mitigation Measures

3.1 Geology, Soils, and Seismicity

3.1.1 Introduction

This section describes the geologic, soils, and seismic conditions associated with the proposed modifications to the Use Permit Conditions of Approval (COA) and analyzes whether a new or substantially more severe significant impact would result from changes in the project or its circumstances, or new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Final Environmental Impact Report (Final EIR) was certified. The environmental setting presented in this section updates the regional and Quarry site and haul route setting information presented in Section IV.B, Geology, Soils, and Seismicity section, and Section IV.E, Transportation and Traffic, of the Final EIR. The Regulatory Framework presented in the Final EIR remains applicable to this analysis and only those laws and regulations that have changed since the Final EIR was certified in December, 2010 are presented and discussed in this section. The environmental impact significance criteria in this section include thresholds for geology, soils, seismicity, and mineral resources and are the same as those used in the Final EIR. The Environmental Impacts and Mitigations Measures section provides an analysis of whether the proposed Use Permit modifications, or the setting in which the Quarry project would take place, would result in new or substantially more severe impacts relating to geologic hazards, seismic hazards, and mineral resources.

3.1.2 Setting

Environmental Setting

The environmental setting for geology, soils, seismicity, and mineral resources, as presented in the Final EIR Sections IV.B and IV.E, remains pertinent and applicable for evaluating the environmental baseline conditions for the proposed Use Permit modifications. While there are continuing advances in how earthquake probabilities are determined for large earthquakes throughout California, such as the ongoing research by the Working Group on California Earthquake Probabilities (USGS, 2015), Sonoma County remains a region of high seismic activity, as described in of the Final EIR. The geologic conditions of the Quarry site are discussed in Section IV.B of the Final EIR. The particular geology at the site of the Americano Creek

relocation on the Quarry site is characterized by Quaternary-aged (less than 1.6 million years) alluvium, which overlies Cretaceous-aged (65 to 140 million-year-old) fractured sandstone and shale of the Franciscan Complex. Soils that have formed on the surface alluvium consist of Blucher fine sandy loam, Los Osos clay loam, and Steinbeck loam (USDA, 2017). The parent material of these soils are Wilson Grove Formation sandstone and shale. Generally, these soils are non-expansive, have slow infiltration potential and a high surface water runoff potential.

Regulatory Setting

The regulatory setting for geology, soils, and seismicity, as presented in the Final EIR, Section IV.B remains relevant for describing the regulatory framework related to the proposed Use Permit modifications. However, the California Building Code (CBC) has been updated since the certification of the Final EIR and the relevant revisions are reviewed below.

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The 2016 edition of the CBC is based on the 2015 International Building Code (IBC) published by the International Code Council, which replaced the Uniform Building Code (UBC). The code is updated triennially, and the 2016 edition of the CBC was published by the California Building Standards Commission on July 1, 2016, and took effect starting January 1, 2017. The 2016 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, Minimum Design Loads for Buildings and Other Structures, provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes. Aspects of the approved Quarry project as well as the proposed Use Permit modifications requiring a building permit would be required to comply with the latest version of the CBC.

3.1.3 Environmental Impacts and Mitigation Measures

Significance Thresholds

The following impact analysis considers whether the proposed modifications to the Use Permit, or changes to the setting in which the Quarry project would take place, would result in new or substantially more severe significant impacts than identified in the Final EIR, with respect to the

following significance thresholds for geologic, soils, seismic, and mineral resource impacts; these are the same significance thresholds as used in the Final EIR.

- Expose people or structures to geologic or seismic hazards that could not be overcome by modern geotechnical engineering design and standard construction and maintenance practices. These hazards could cause substantial risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist (California Geological Survey Special Publications 42 and 117 and PRC §2690 et. seq.);
  - Strong seismic ground shaking;
  - Seismic-related ground failures, including liquefaction, lateral spreading, subsidence, collapse; or landslides.
- Result in substantial soil erosion (accelerated erosion) or loss of topsoil;
- Be located on expansive soil, creating substantial risks to life or property;
- 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse;
- 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;
- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state; and
- 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.

Impacts and Mitigation Measures

Using the Significance Thresholds above, this section discusses the potential for the proposed modifications to the Use Permit to result in a significant impact to geology, soils, seismicity and mineral resources when compared to the Quarry project and alternatives analyzed in the Final EIR, and subsequent analysis of Modified Alternative 2 (ESA, 2010). Additionally, this section analyzes whether the proposed modifications to the Use Permit could cause a substantial increase in the severity of any previously identified impacts. Based on the characteristics of the proposed modifications to the Use Permit and the project site location, some of the criteria above were found to have no potential for a new or substantially more severe impact, as described below.

Fault Rupture Hazards. Seismically-induced ground rupture was not found to be a significant impact in the Final EIR, primarily because the Dunham Fault was not identified by the CGS as an active fault feature (CGS, 1980) and no faults in the area are designated by the State of California under the Alquist-Priolo Earthquake Fault Zoning Act as active and susceptible to fault rupture. The proposed modifications to the Use Permit would not change this conclusion and therefore, fault rupture is not considered an impact.

Liquefaction. The Final EIR concluded that liquefaction was not a concern for Quarry development because the geotechnical investigation of the Quarry site encountered no potentially liquefiable soils within the Quarry area. The Final EIR concluded that the potential for liquefaction and its related ground distress was low. The proposed modifications to the Use Permit would not change this conclusion.

Septic Tanks/Alternative Wastewater Disposal Systems. This threshold does not apply to the proposed modifications to the Use Permit because the proposed changes would not impact septic system locations considered for the approved project. The proposed relocation of Americano Creek under the Use Permit modifications would be an adequate distance (over 200 feet) from the existing septic and leach field on the Quarry property.

Loss of Available Mineral Resource. The Final EIR concluded that the project would not create an impact because Roblar Road Quarry would be a hard rock quarry, which would provide a new source of aggregate suitable for Portland cement concrete, asphalt concrete and asphalt concrete base. The proposed modifications to the Use Permit would not change that conclusion because no component of the proposed modifications prevents mineral resource extraction.

Loss of Available Mineral Recovery. The Final EIR concluded that the project would not create an impact of the project because, as stated above, the Quarry project would develop a new quarry for mineral resource recovery. The proposed modifications to the Use Permit do not change that conclusion because no component of the proposed modifications renders the mineral resource unobtainable.

Impacts

Impact 3.1-1: Proposed modifications to the Use Permit could expose people or structures to seismic hazards including ground failure. (*No New or Substantially More Severe Significant Impact*)

Previous environmental analysis of the proposed signalization changes at the Stony Point Road/Roblar Road intersection (Sonoma County PRMD, 2005) determined that seismic ground shaking would not increase the risk of loss, injury or death involving an earthquake, strong seismic ground shaking, liquefaction, or landslides and while the intersection improvements could be damaged in a seismic event, it was not found to result in a substantial adverse effect to people.

The proposed modification to Use Permit Condition/Mitigation Measure 44 (Signal Design at Stony Point Road/Roblar Road) would have the same or less impact at the site as was analyzed in the County's Initial Study/Mitigated Negative Declaration (IS/MND) for the signalization of Stony Point Road/Roblar Road. Therefore, the Applicant's proposed signal design would not result in a new or substantially more severe significant impact.

The Applicant's proposed design for the widening of Roblar Road likewise would reduce the risk of slope instability during an earthquake, as compared to the Final EIR, by obviating the need for grading and slope stabilization work associated with straightening the "S" curve in the existing

alignment of Roblar Road between the Quarry entry and Access Road 2. In addition, a geotechnical study is still required for the proposed road widening, as specified in Final EIR Mitigation Measure E.8b (adopted as Condition/Mitigation Measure 71). With application of Condition/Mitigation Measure 71, the Applicant's proposed design for widening of Roblar Road would not result in a new or substantially more severe significant impact than previously identified.

The proposed relocation of Americano Creek (Modifications to Condition 101 and Condition/Mitigation Measure 133) would require grading and shallow excavation, but these changes would not reduce the soil strength, create unstable earthen slopes, or increase liquefaction potential and, therefore, would not cause a condition that would intensify or reduce the degree of ground motion experienced during an earthquake at the Roblar Road Quarry site. The proposed relocation of Americano Creek would therefore not result in a new or substantially more severe significant impact with respect to exposing people or structures to seismic hazards.

Impact 3.1-2: Proposed modifications to the Use Permit could cause substantial soil erosion or loss of topsoil. (*No New or Substantially More Severe Significant Impact*)

The IS/MND for the signalization of the Stony Point Road/Roblar Road intersection identified erosion as a potentially significant impact of the intersection improvements because areas of the existing topography would need to be sloped back or filled to accommodate the road widening (Sonoma County PRMD, 2005). Mitigation measures were identified in the IS/MND to reduce soil erosion at the Stony Point Road/Roblar Road intersection. IS/MND Mitigation Measure 6.1 required a) hand seeding with straw placed over the seed in disturbed areas outside the paved and rock shoulder, b) covering slopes of greater than 3:1 with jute or fiber blankets, installed per the manufactures instructions at the end of the work day, and c) use of erosion control measures in accordance with the California Stormwater Quality Association, Stormwater Best Management Practice Handbook for Construction. IS/MND Mitigation Measure 6.2 required that the project site be inspected at the beginning, middle, and end of the rainy season following construction, and correction of significant erosion or erosion control device failure by the Contractor or DTPW. IS/MND Mitigation Measures 6.1 and 6.2 would ensure that construction period erosion impacts during the signalization of the Stony Point Road/Roblar Road intersection would be less than significant. All of the mitigation measures from the IS/MND were included in the Final EIR as Mitigation Measure E.9 and adopted as Condition/Mitigation Measure 86.

The Applicant's proposed design for the intersection signalization would not increase the soil erosion hazard at the Stony Point Road/Roblar Road intersection because it requires less soil disturbance compared to the previous design. The Applicant's proposed design would not result in the filling of the associated drainage ditches, the road widening would be reduced, and less grading would be required. Therefore, the Applicant's proposed design for the intersection improvements would not result in a new or substantially more severe significant impact than previously identified.

During construction, the proposed widening improvements on Roblar Road would require vegetation removal, shallow excavation, and grading along the proposed haul road alignment. The Final EIR identified soil erosion as a potential impact of widening Roblar Road and prescribed two mitigation measures. Mitigation Measure E.8a (adopted as Condition/Mitigation Measure 70) requires the Applicant to implement and maintain best management practices (BMPs) for the reduction or elimination of soil erosion during construction. Mitigation Measure E.8c (adopted as Condition/Mitigation Measure 72) requires the Applicant to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) prior to commencing construction. The SWPPP specifies BMPs designed to reduce erosion and limit discharges of pollutants to surface water and complies with the State of California's Construction General Permit.

The changes proposed for the Roblar Road widening (proposed modifications to Condition/ Mitigation Measure 49 and Condition 59) would decrease the amount of ground area disturbed by general grading, excavation, and vegetation removal because a narrower road section would be improved. The proposed modifications would require fewer and less severe cut slope excavations along the approved haul route, which includes the cut slopes and grading that would be required with straightening the "S" curve on Roblar Road. Fewer cut slopes would reduce short-term construction erosion and eliminate erodible, exposed slopes that could be susceptible to long-term erosion. While the ground disturbance would be less and most of the widening would take place in a limited margin of the roadway, Final EIR Mitigation Measures E.8a and Mitigation Measure E.8c (adopted as Conditions/Mitigation Measures 70 and 72) would remain applicable to the proposed modification. Therefore, the Applicant's proposed design for the widening of Roblar Road would not result in a new or substantially severe significant impact than was previously identified.

The proposed relocation of Americano Creek (proposed modifications to Condition 101 and Condition/Mitigation Measure 133) would create a new section of the creek within the Quarry project site. As discussed in Section 3.2, Hydrology and Water Quality, the relocated section would utilize bank stabilization methods including revegetation and slope protection. The vegetation reduces flow velocities and sheer stresses on the bank surface and would increase hydraulic capacity and provide increased habitat value. Areas of increased hydraulic stress along the realigned channel would be lined with soil-filled rock-slope protection to allow for planting, and the channel bottom would be lined with river rock. In addition, the channel banks and terraces would be vegetated to minimize erosion and sinuosity would be added to increase the length of the channel, reducing velocity through the realigned section. The realigned channel and associated areas would be fenced off to prevent disturbance from animal grazing that could cause on-site erosion of the banks and downstream transport of sediment. The measures are prescribed as part of the project in the Applicant's "Conceptual Planting Plan for Americano Creek" (Winfield, 2017, included as Appendix A) and would reduce the potential for long-term soil erosion or loss of topsoil within the relocated section. Details of the effects on localized soil erosion, hydrology, and sedimentation and measures to reduce long-term erosion and loss of topsoil are provided in Section 3.2, Hydrology and Water Quality. Soil erosion and loss of topsoil associated with the relocation of Americano Creek would, therefore, not result in a new or substantially more severe significant impact.

Impact 3.1-3: Expansive soils could result in roadway damage and creek slope instability. (*No New or Substantially More Severe Significant Impact*)

The Final EIR (Section IV.B, Geology, Soils, and Seismicity) concluded that hazards associated with expansive soils (soil with the potential to shrink when desiccated and swell when wet) would not be a significant impact of the Quarry project. The IS/MND concluded that no substantial risks to life or property would be created from soil expansion at the Stony Point Road/Roblar Road intersection, even if it were to be affected by expansive soils (Sonoma County PRMD, 2005). The intersection site is developed with asphalt underlain by a base rock placed on graded and engineered soil. With this degree of alteration, the likelihood that expansive soils are still present after the intersection was constructed is low. While the soils located within the vicinity of the approved Roblar Road Quarry are described as clayey silts, the expansive soils are in distinct, isolated areas. Of the soils located on the Quarry property, only one, the Clear Lake Clay, found in the southwest portion of the property near Americano Creek and Ranch Tributary, is considered expansive.

The Applicant's proposed design for the Stony Point Road/Roblar Road intersection would not be impacted by expansive soils because, as mentioned above, any such soils have likely been removed by previous construction, and the grading associated with the Applicant's proposed design would be confined to the existing roadway footprint. Therefore, implementation of the Applicant's proposed intersection design would not result in a new or substantially more severe significant impact with respect to expansive soils.

The Applicant's proposed design for widening Roblar Road would involve less grading than the approved design examined in the Final EIR. Therefore, the potential to encounter expansive soils would be less than for the approved project. As with the approved project, any imported fill needed for construction under the proposed modifications to the Use Permit would be tested before placement to ensure it is not expansive. Therefore, implementation of the Applicant's proposed road-widening design would not result in a new or substantially more severe significant impact with respect to expansive soils.

The proposed relocation of Americano Creek (proposed modifications to Condition 101 and Condition/Mitigation Measure 133) would not be susceptible to damage from expansive soils because expansive soils, if present, would either be removed while grading the relocated creek section or be stabilized along the stream banks by vegetation. Therefore, implementation of the Applicant's proposed relocation of Americano Creek would not result in a new or substantially more severe significant impact with respect to expansive soils.

Impact 3.1-4: The proposed modifications to the Use Permit could allow activities in an area underlain by existing unstable geologic materials or on geologic materials that that could become unstable as a result of the modifications. Unstable areas could include landslides, subsidence, or soil collapse. ***(No New or Substantially More Severe Significant Impact)***

Final EIR Impact B.2 identified areas on the Quarry site that would be unstable, namely existing slopes, over-steepened cut slopes and overburden piles, and provided mitigation measures to reduce potential slope failure impacts to less than significant. The proposed modifications to the Use Permit would not involve activities in these areas, nor would they be located in hilly areas where unstable geologic materials may occur. Impact 3.1-1, above, discusses the potential for liquefaction ground failure due to seismic ground shaking.

The IS/MND for the Stony Point Road/Roblar Road intersection signalization determined that unstable ground would be a less-than-significant impact (Sonoma County PRMD, 2005). The ground could become unstable due to seismic ground shaking, but it was not expected to result in a substantial adverse effect to people. The Applicant's proposed design for intersection improvements (proposed modifications to Use Permit Condition/Mitigation Measure 44) would occur on ground that is flat and that has been previously improved by the construction of the roadway. The modifications involve reduced grading and fill placement compared to the approved design. The Applicant's proposed design for intersection improvements would not result in a new or substantially more severe significant impact with regard to ground stability or unstable ground.

The Applicant's proposed design for widening of Roblar Road (modifications to Condition/Mitigation Measure 49 and Condition 59) would limit roadway improvements to a narrow margin along Roblar Road. The lateral margin that would be disturbed is decreased under the Applicant's proposed design when compared to design examined in the Final EIR. The proposed design also eliminates the need for the substantial grading, new roadway surfaces, and potentially unstable cut slope necessary to straighten the "S" curve. Roadway widening would be subject to a geotechnical investigation to identify areas of geologic instability: Final EIR Mitigation Measure E.8b (Condition/Mitigation Measure 71) requires that a design-level geotechnical investigation be completed for the proposed haul road prior to issuance of a grading permit. The geotechnical investigation would be designed and implemented to identify areas of geologic instability and develop adequate engineering design criteria and remedies to reduce the potential for slope and roadway failure and would provide recommendations for slope stabilization, grading, engineered fills, and road base/asphalt design. With implementation of Condition/Mitigation Measure 71, the Applicant's proposed design for widening Roblar Road would not result in a new or substantially more severe significant impact with respect to unstable geologic materials.

The proposed relocation of Americano Creek (Modifications to Condition 101 and Condition/Mitigation Measure 133) would occur on a relatively flat portion of the approved Roblar Quarry site underlain mostly by stable, non-expansive soils, consolidated alluvium, and bedrock. The creek relocation would not alter the underlying geologic materials to such a degree that the substrate of the realigned creek segment would become unstable.

In summary, the potential for the activities associated with the proposed modifications to the Use Permit to be placed on unstable geologic material or that these modifications would cause the

underlying ground to become unstable would not result in a new or substantially more severe significant impact.

Cumulative Impacts

The proposed modifications to the Use Permit, with implementation of the identified Conditions/Mitigation Measures 70, 71, and 72, would not result in new or more severe significant impacts related to slope instability, unstable geologic materials, or seismic hazards when compared to the Final EIR. Considering the limited geographic and temporal context of the proposed Use Permit modifications, and also considering that there are no other cumulative projects in the vicinity identified by the Sonoma PRMD, the proposed modifications, combined with existing or other foreseeable development in the vicinity of the Roblar Road Quarry, would not result in a new or substantially more severe cumulatively significant impact associated with geology, soils, and/or seismic conditions.

3.1.4 References

The California Building Code (CBC), 2016, California Code of Regulations (CCR), Title 24, Part 2, California Building Standards Code (CBSC).

California Geological Survey, 1980. *Geology for Planning in Sonoma County*, Special Report 120. Reprinted in 2000.

ESA, 2010. *Memorandum, ESA to Sonoma County PRMD, subject: Roblar Road Quarry Alternative Haul Route Alignment.* October 19, 2010.

Sonoma County PRMD, 2005. *Mitigated Negative Declaration / Initial Study and Mitigation Monitoring Program: Signalization of Stony Point Road at Roblar Road.* Prepared for Sonoma County Department of Transportation & Public Works. October, 2005.

U.S. Department of Agriculture. Web Soils Survey. https://websoilsurvey.nrcs.usda.gov/ Accessed September 2017.

U.S. Geological Survey, 2015. UCERF3: A New Earthquake Forecast for California's Complex Fault System. Available at https://pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf

Winfield, Ted, Ph.D. 2017. *Conceptual Planting Plan for Realigned Americano Creek.* August 21, 2017. (Included in this document as Appendix A.)

This page intentionally left blank

3.2 Hydrology and Water Quality

3.2.1 Introduction

This section describes hydrologic and water quality conditions associated with the proposed modifications to the Quarry project and associated Use Permit Conditions of Approval (COA) and Final Environmental Impact Report (Final EIR) mitigation measures, and analyzes whether a new or substantially more severe significant impact would result from changes in the project or its circumstances, or new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified. The environmental setting presented in this section uses setting information presented in Section IV.C, Hydrology and Water Quality, and Section IV.E, Transportation and Traffic, of the Final EIR. The Regulatory Framework presented in the Final EIR remains applicable to this analysis and only those laws and regulations that apply directly to the modifications to the Use Permit and have changed since the Final EIR was certified in December, 2010 are presented and discussed in this section. The environmental impact significance criteria in this section include thresholds for hydrology and water quality and are the same as those used in the Final EIR.

Hydrologic and water quality related information relevant to the assessment of impacts were obtained from field reconnaissance as well as published and unpublished reports and maps relevant to hydrology and water quality completed subsequent to certification of the Final EIR and approval of the Quarry project by the Sonoma County BOS. Such sources include the Americano Creek relocation design plan (Figure 2-8 in Chapter 2, Project Description), including supporting information providing rationale for the basis of the hydraulic design, and the "Conceptual Planting Plan for Realigned Americano Creek" (Winfield, 2017),[1] hereafter referred to as the "Planting Plan").

3.2.2 Setting

Environmental Setting

The environmental setting for hydrology and water quality, as presented in Final EIR Sections IV.C and IV.E, remains pertinent and applicable for evaluating the proposed modifications to the Use Permit relative to the approved Final EIR against baseline conditions. The hydrology and water quality of the Quarry property, including surface and groundwater hydrology, flooding and flood risk, climate, topography, drainage, and soils are fully described in the certified Final EIR. Additionally, no new waters have been listed as impaired and grazing remains the primary land use in the area.

After the certification of the Final EIR in 2010, the Applicant completed a conceptual design (Figure 2-8 in Chapter 2, Project Description) and the Planting Plan to support project design and mitigation planting. The Planting Plan characterizes the reach from Ranch Tributary upstream to

[1] This document is included as Appendix A.

the point where Americano Creek crosses under Roblar Road (see Figure 2-8 in Chapter 2, Project Description). The Planting Plan verifies the hydrology (including seasonal flow variations), topography, soils, and drainage for Americano Creek described in the Final EIR.

Regulatory Setting

The regulatory setting for hydrology and water quality, as presented in the Final EIR, Section IV.C remains relevant for describing the regulatory framework related to the proposed modifications to the Use Permit. However, subsequent to the completion of the Final EIR in 2010, the State of California updated and amended its General Permit for Construction Practices, which is described below.

NPDES Construction General Permit

The California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), adopted by the State Water Resources Control Board (SWRCB), regulates construction site storm water management. The State adopted a revised Construction General Permit on September 2, 2009 (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). The Construction General Permit applies to dischargers whose projects disturb one or more acres of soil, or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the general permit for discharges of stormwater associated with construction activities such as clearing, grading, and excavation. Construction associated with development of the approved Quarry project, as well as the proposed modifications to the Use Permit would be required to comply with the permit requirements to control stormwater discharges from the construction sites.

In the project area, the Construction General Permit is implemented and enforced by the North Coast Regional Water Quality Control Board (RWQCB), which administers the stormwater permitting program. To obtain coverage under this permit, project operators must electronically file Permit Registration Documents, which include a Notice of Intent, a Stormwater Pollution Prevention Plan (SWPPP), and other compliance-related documents. An appropriate permit fee must also be mailed to SWRCB. The SWPPP identifies best management practices (BMPs) that must be implemented to reduce construction effects on receiving water quality based on potential pollutants. The BMPs identified are directed at implementing both sediment and erosion control measures and other measures to control potential chemical contaminants. In addition, the SWPPP is required to contain a visual monitoring program and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. As described in Section IV.C of the Final EIR, the Americano Creek/Estuary system remains listed as an impaired water body under Section 303(d) of the Clean Water Act for nutrients and sediment. At present, total maximum daily loads (TMDLs) have not been established for this water body.

Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and

equipment washing and fueling. The SWPPP also includes descriptions of the BMPs to reduce pollutants in stormwater discharges after all construction phases have been completed at the site (post-construction BMPs). Dischargers are responsible for notifying the RWQCB of violations or incidents of non-compliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected.

The Construction General permit includes several new requirements (as compared to the previous Construction General Permit, 99-08-DWQ), including risk-level assessment for construction sites, an active storm water effluent monitoring and reporting program during construction (for Risk Level II and III sites), rain event action plans for certain higher risk sites, and numeric effluent limitations (NELs) for pH and turbidity as well as requirements for qualified professionals that prepare and implement the plan. The risk assessment and SWPPP must be prepared by a State-qualified SWPPP Developer and implementation of the SWPPP must be overseen by a State-qualified SWPPP Practitioner.

The Applicant would be required to obtain coverage under the Construction General Permit for the land disturbance activities occurring under the modifications to the Use Permit.

3.2.3 Environmental Impacts and Mitigation Measures

Significance Thresholds

The significance thresholds used to analyze the hydrologic and water quality impacts, as presented below, are adapted from the 2017 CEQA Guidelines, Appendix G. The significance thresholds are the same as those presented in the Final EIR. The following impact analysis considers whether the proposed modifications to the Use Permit, or changes to the setting in which the project would take place, would result in new or substantially more severe significant impacts than identified in the Final EIR, with respect to the following:

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 a 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 sedimentation on- or off-site;

d) Substantially alter the existing drainage pattern of a 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; or

j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

Impacts and Mitigation Measures

Using the significance thresholds above, this section discusses the potential for the proposed modifications to the Use Permit to result in new or substantially more severe significant impacts to hydrology and water quality when compared to the Quarry project and alternatives analyzed in the Final EIR. Based on the characteristics of the proposed modifications to the Use Permit and the project site locations, some of the criteria above were found to have no potential impact, as described below.

100 Year Flood Hazard Area. Flooding, flood risks, and impeding or redirecting flood waters associated with a 100-year flood event was not identified as an impact in the Final EIR, primarily because there were no 100-year flood zones located within the Quarry project site. Additionally, the Stony Point Road/Roblar Road intersection and the portions of Roblar Road slated for widening are not located within a 100-year flood zone. All of the proposed modifications to the Use Permit would result in project changes that would occur within the Quarry project site, Roblar Road haul route, and the already approved design of the Stony Point Road/Roblar Road intersection, and would not result in housing or structures being placed within a 100-year flood hazard area. There would be no impact related to this criterion and the conclusion presented in the Final EIR is unchanged.

Expose people or structures to flooding as a result of dam or levee failure. This threshold does not apply to the proposed modifications to the Use Permit as all actions would occur within the footprint of the already-approved Quarry, road widening, and Stony Point Road/Roblar Road intersection improvements, none of which are located in a mapped dam inundation hazard area (Sonoma County, 2014), nor located near levees that could result in flooding should they fail.

Seiche, tsunami, or mudflow. The proposed modifications to the Use Permit would not result in actions that are located in an area subject to seiche or tsunami. As described in the Final EIR, there are no large open bodies of water near the footprint of the Quarry, the Stony Point Road/Roblar Road intersection, or portions of Roblar Road slated for widening, and therefore, these locations are not susceptible to damage from seiche activity. The Quarry site is more than ten miles from the Pacific Ocean, and therefore is not susceptible to coastal hazards (tsunami, extreme high tides, or sea level rise). The Quarry site, Stony Point Road /Roblar Road intersection, and Roblar Road are not in the mapped inundation hazard area for tsunami or other coastal flood hazard risks. The potential for slope instability, including mudflows and unstable

soils, is addressed in the Final EIR (see Section IV.B, *Geology, Soils and Seismicity*) and in Section 3.1 of this supplemental environmental review, and no such impacts would occur related to the proposed modifications to the Use Permit.

Water quality impacts during construction of intersection improvements and Roblar Road improvements. The proposed intersection design and Roblar Road improvements would require less ground disturbance and asphalt paving than previously analyzed, and would thus result in less water quality impacts. In addition, the project remains subject to Final EIR Impact E.8 and Conditions/Mitigation Measures 72 and 73, which require preparation and submittal of a Storm Water Pollution Prevention Plan (SWPPP), and that the storm drain system for the roadway widening improvements be designed in accordance with all applicable County and Sonoma County Water Agency (SCWA) drainage and flood control design standards. Therefore, as compared to the Final EIR, the proposed modifications would not result in new or substantially more severe impacts to water quality during construction of intersection and roadway improvements.

Groundwater supplies and recharge. The proposed modifications would result in no new or more severe adverse impact as compared to the Final EIR. Instead, the proposed designs for Stony Point Road/Roblar Road signalization and Roblar Road widening both propose less impervious surface than previously analyzed, potentially increasing surface infiltration and groundwater recharge as compared to the Final EIR. In addition, the proposed relocation of Americano Creek would likely increase surface infiltration during the dry season, and would not cause or require additional groundwater extraction over the project analyzed in the Final EIR. Revegetation planned as a part of the proposed relocation of Americano Creek may require use of drip irrigation for establishment of new plantings. The Applicant has stated his intent to use an existing on-site water source that currently serves as the domestic water supply for the ranch complex in the southwestern portion of the Quarry property. The source of this water is a developed spring within the property, and the existing system includes a water storage tank. The Applicant has stated that the residence served by this water supply is currently uninhabited, and that the water from this source is available and sufficient for the proposed revegetation. Irrigation would only be for plant establishment for a period determined by the resource agencies though the permit process (typically five years). Use of this water supply would not deplete groundwater supplies or adversely affect groundwater recharge, and so would not result in a new or substantially more severe significant impact of this kind.

Impacts

Impact 3.2-1: The proposed modifications to the Use Permit could increase on- or off-site erosion, sedimentation, or flooding due to altered drainage patterns. (*Beneficial Impact / No New or Substantially More Severe Significant Impact*)

Signalization of the Stony Point Road/Roblar Road Intersection

The signalization design for the Stony Point Road/Roblar Road intersection considered in the IS/MND (Sonoma County PRMD, 2005) included road widening on Stony Point and Roblar Roads, which would require filling and relocating roadside ditches to the edge of the new

roadway. The IS/MND concluded that filling and relocating the roadside ditches would not be a substantial alteration from the existing conditions and would not result in substantial erosion on- or off-site (Sonoma County PRMD, 2005). The Applicant's proposed design for intersection improvements would not require filling and relocating drainage ditches, or involve grading or excavation, and thus would avoid impacts to biological habitat for sensitive species (see Chapter 2, Project Description). Therefore, the proposed modification to Condition/Mitigation Measure 44 would reduce impacts to drainage features as compared to the County's preliminary design analyzed in the IS/MND and would not increase runoff rates or volumes or alter the conveyance capacity of existing drainage ditches, as compared to existing conditions. The proposed modifications would not alter drainage patterns in a manner that would increase on- or off-site erosion, sedimentation, or flooding.

Reconstruction and Widening of Roblar Road

The Final EIR (Impact E.8) evaluated the impacts of stripping vegetation and disturbing soils along the roadway alignments during the widening of Roblar Road and concluded that it could result in increases in erosion and sedimentation that would affect surface water quality in local water courses. In addition, the Final EIR concluded that the accidental release of hazardous materials (e.g., fuels, lubricants) associated with construction could contaminate soil and/or stormwater along the roadway alignments. The Final EIR concluded that net increases in impervious surfaces would not be significant and, subsequently, stormwater runoff increases would not be significant. Further, the Final EIR concluded that any increase in stormwater runoff associated with widening Roblar Road would be distributed to several water courses. As the increase in runoff would not be significant and would be distributed across multiple water courses, impacts related to on- or off- site erosion, sedimentation, or flooding due to altered drainage patterns would be less than significant. Further, Mitigation Measures E.8c (Condition/Mitigation Measure 72) and E.8d (Condition/ Mitigation Measure 73) ensure that potential impacts to water quality and drainage associated with construction would remain less than significant.

Compared to the project effects analyzed in the Final EIR, modifications to Condition/Mitigation Measure 49 and Condition 59 would reduce the potential for the alteration of drainage patterns by eliminating the need to straighten the "S" curve on Roblar Road and would additionally reduce the ground area disturbance and the overall amount of general grading and vegetation removal. Therefore, the Applicant's proposed design for widening Roblar Road would reduce impacts to drainage features as compared to the Final EIR, and would not alter drainage patterns in a manner that would increase on- or off-site erosion, sedimentation, or flooding.

Additionally, Conditions/Mitigation Measures 70 and 73 require that all storm drainage facilities associated with road widening improvements be designed and constructed in accordance with Sonoma County Water Agency (SCWA) design standards, and that improvements must be reviewed and approved by PRMD. Condition/Mitigation Measure 72 further specifies that the drainage plan for road widening improvements must ensure that drainage facilities are appropriately sized to accommodate projected stormflows and prevent on- and off-site flooding. In combination, Conditions/Mitigation Measures 70, 72, and 73 further ensure that the proposed modifications to the Use Permit do not increase the potential for long-term (post-construction) on- or off-site erosion, sedimentation, or flooding due to altered drainage patterns as compared to the Final EIR.

Relocation of Americano Creek and Other Wetland Disturbance

To enable the required widening of Roblar Road, Americano Creek would be relocated away from Roblar Road into a new constructed channel with associated constructed wetland on the Quarry Site, as shown in Figure 2-8 in Chapter 2, Project Description. The section of Americano Creek proposed for relocation currently parallels Roblar Road along the north side of the roadway and then crosses under Roblar Road and continues to flow westerly. Along this reach, the creek has been channelized and riprap has been installed along the bank adjacent to Roblar Road to protect the road from erosion and scour. The opposite, southeastern bank of the creek supports a narrow band of riparian woodland (see Section 3.3, Biological Resources, for further description of riparian woodland and existing biological function). The channelization of the creek has resulted in limited hydraulic capacity along the reach proposed for relocation. During periods of higher flows, water overflows onto the adjoining lowland areas, eventually flowing back into the creek toward the southwest where Ranch Tributary flows into Americano Creek. The area where Americano Creek is proposed for relocation is characterized as the existing historic floodplain[2] associated with the channel reach with relatively flat topography.

Approximately 750 linear feet of the existing creek channel would be filled and another 240 linear feet would be dewatered following relocation, although most of the existing riparian woodland on the south side of the existing creek would not be removed (see Section 3.3, Biological Resources, Impact 3.3-1, for discussion of impacts to existing riparian habitat). The realigned channel would be approximately 935 feet long with a 14-foot wide creek bed covering approximately 0.301 acre with 2.5:1 or flatter side slopes, and a centerline radius greater than or equal to three times the total top width of the channel. The proposed relocated channel includes a 5-foot wide low flow channel that meanders along the creek bottom, and approximately 0.450-acre of low flood terraces adjacent to the creek banks. The total footprint of the realigned Americano Creek channel and floodplain terraces would be approximately 1.84 acres. The realigned Americano Creek channel would be located on the existing historic floodplain adjacent to the existing creek channel and would include the creation of new wetlands, including the constructed channel and associated constructed wetlands.

The relocation of Americano Creek has been designed with the intent to achieve the long-term goal of replacing the impacted stretch of Americano Creek that is highly channelized, has reduced biologic function, and has limited hydraulic capacity, with improved riparian and seasonal wetland habitat and with increased hydraulic capacity. To support the assessment of impacts associated with the relocation of Americano Creek, the Applicant provided the Americano Creek Relocation Design (Figure 2-8 in Chapter 2, Project Description) and the Conceptual Planting Plan for Realigned Americano Creek (Winfield, 2017). The supporting studies were peer reviewed by the County's environmental consultant for accuracy and to determine whether the methodologies employed and assumptions regarding hydrologic conditions were defensible and

[2] The term "floodplain," as used here, does not refer to a regulatory zone or area designated as subject to flooding or flood risks, such as the FEMA defined 100-year flood hazard area. The term "floodplain," when applied to characterizing hydrologic function of a stream channel, refers to the relatively flat lowland area that borders a stream or river comprised of former flood deposits. These areas are typically dry, but may be inundated with shallow water when the stream flows overtop natural banks.

appropriate and that the results were valid. Where applicable, the results and findings of the supporting technical studies were incorporated into the assessment of impacts, as discussed below.

Short-term Erosion, Sedimentation, and Flooding (Construction)

During construction, short-term soil disturbing activities such as grading, earthmoving, backfilling, and compaction related to channel relocation could potentially result in increased erosion and sedimentation on- and off-site (downstream). However, as described in the Planting Plan, several avoidance measures are proposed as part of the relocation construction to minimize and/or avoid impacts related to erosion and sedimentation on- and off site. These include fencing the construction impact area prior to construction of the new channel to avoid impacts to the seasonal wetlands from construction activities and equipment, as described in the Chapter 2, Project Description and in Appendix A. Additionally, construction would occur during summer months when Americano Creek flow and precipitation is typically at a seasonal low, reducing the potential for storm runoff-based erosion and the transport of sediment to downstream waters. Further adherence to the requirements of the Construction General Permit, as well as the sediment-reduction requirements of Final EIR Mitigation Measures C.2a and C.2b (adopted as Conditions/Mitigation Measures 111 and 112), would minimize and/or avoid on-site erosion and prevent significant construction-related impacts to water quality on- and off-site from sedimentation.

Long-term Erosion, Sedimentation, and Flooding

Following the completion of construction, the relocated channel section would cause the creek channel to follow a new course. Depending on the change in the water surface slope, an increase in the flow depth could translate to an increase in flow velocity and, subsequently, an increase in the capacity of the channel to erode and mobilize bed and bank sediments. If the increase in velocity is large enough and ample sediment is available for transport, the resultant bed/bank erosion and increase in sediment transport could be substantial, negatively impacting both channel stability and water quality on-site and downstream.

The Planting Plan assessed the hydrology of the tributary watershed using publicly-available topographic information. The channel relocation was designed in conformance with the SCWA Flood Control Design Criteria Manual (SCWA, 1983). The SCWA publication outlines design procedures for determination of runoff coefficients, average seasonal precipitation, time of concentration, rainfall intensity, and design flows. The tributary area of the creek upstream of the relocation site is approximately 950 acres and is anticipated to generate approximately 500 cubic feet per second during a 25-year storm event. The creek channel has been designed to carry the 25-year storm flow with 1.5-feet of freeboard from the top of bank, and to contain the 100-year storm flow within the channel. The new creek channel cross-section has been designed to incorporate terraces to receive and capture seasonal flows. The terrace benches are located above the creek bed so that they become submerged during a storm with a one-year recurrence interval.

Areas of increased hydraulic stress along the realigned channel would be lined with soil-filled rock-slope protection to allow for planting, and the channel bottom would be lined with river rock. The channel banks and terraces would be vegetated, as described in the Planting Plan, to

minimize erosion. Sinuosity would be added to increase the length of the channel, reducing velocity through the realigned section. While some sinuosity would be added by incorporating the terraces, a low flow channel would meander across the creek bed providing an increased flow length and, therefore, increased residence time, under low flow conditions. The new creek alignment would tie back into the existing creek channel near the western side of the relocated stream reach where the creek is separated from Roblar Road. The banks of the realigned Americano Creek channel would be planted with a combination of willows and emergent wetland plants. The Planting Plan includes details of the planting methodology and design proposed to establish vegetative cover for the realigned channel section.

As described in Chapter 2, Project Description and in Appendix A, the Planting Plan includes an implementation plan, which details site preparation and measures for avoiding sensitive habitat areas, and a monitoring/maintenance plan for adaptively managing the channel relocation area. The realigned channel and associated areas would be fenced off to prevent animal grazing, reducing on-site erosion of the banks and downstream transport of sediment. Animal exclusion would also facilitate development of vegetation cover in the flood plain terraces within an estimated three to five years. The area of disturbance associated with construction and operation of the Americano Creek relocation would be kept to a minimum, as per the Planting Plan and the sensitive areas outside the Americano Creek relocation footprint would be cordoned off using stakes and construction fencing to prevent inadvertent impacts to the avoided areas. The staking and fencing would be installed between the edge of the realigned Americano Creek boundary closest to the seasonal wetlands where the creek enters onto the Quarry site and between the edge of the footprint of the realigned creek and the existing riparian area along the creek. The maintenance of vegetative cover would incorporate data from monitoring performed between completion of construction and attainment of the defined long-term goals and performance criteria for establishing vegetation. Corrective actions linked to monitoring and maintenance, such as hand irrigation or temporary drip system, removal of debris from wetlands and channels, invasive species removal, and protection of new plants with screens, are proposed as part of the Planting Plan to ensure successful establishment of vegetative cover (see Section 3.3, Biological Resources, for additional discussion; see discussion above regarding the proposed water supply for drip irrigation).

In the long-term, the proposed relocation of Americano Creek would not increase erosion and sedimentation on-site or downstream. The proposed design includes bank stabilization methods that utilize a combination of structural materials, which provide short-term protection from erosion, and live cuttings. As the live cuttings become established, the roots provide long-term stabilization to the soils, while the vegetation reduces flow velocities and sheer stresses on the bank surface. In the long term, these measures would provide a benefit to Americano Creek by increasing hydraulic capacity and providing increased habitat value. Construction of a broader and more functional floodplain, as proposed, would increase hydraulic capacity, provide additional storage of extreme flood flows, and increase the sediment storage capacity and attenuate the downstream transport of sediment during extreme flood events. The proposed design would reduce velocities through the realigned section as compared to existing conditions and would not significantly alter velocities in downstream reaches. There would be no substantial change in runoff flow rates because the drainage pattern of the tributary area would not be altered nor would the volume of flows within the

channel be substantially altered. Therefore, no new impacts would occur related to an increase in the rate or volume of surface runoff or in-stream flows that could result in on- or off-site flooding as compared to the approved Quarry project.

Since the proposed relocation of Americano Creek would occur within the Quarry project site, the relocation of Americano Creek would be subject to the requirements of Final EIR Mitigation Measure C.1a (adopted as Condition/Mitigation Measure 109), which requires implementation of an on-going baseline flow and creek stage monitoring program for Americano Creek and Ranch Tributary. The results of this monitoring will be applied to the design of stormwater discharge facilities to ensure that base flows are maintained. To protect creek water quality, Final EIR Mitigation Measure C.1b (adopted as Condition/Mitigation Measure 110) requires that only surface water occurring outside of the Quarry footprint shall be discharged to Americano Creek and/or Ranch Tributary as part of flow management under Mitigation Measure C.1a. Mitigation Measure C.1c (adopted as Condition/Mitigation Measure 100) requires completion of a drainage plan that accounts for increased flows from Quarry operations to ensure flows entering Americano Creek and/or Ranch Tributary do not exceed pre-project baseline flows during the 2-, 5-, 10-, 25-, 50-, and 100-year storm events. The implementation of these measures further minimizes and avoids impacts related to flooding, bank erosion, and sedimentation in Americano Creek and Ranch Tributary. The proposed relocation of Americano Creek would not result in new impacts related to a substantial alteration of existing drainage patterns, or result in subsequent downstream erosion or siltation on- or off-site, as compared to the approved Quarry project, and previously identified impacts would not increase in severity.

Impact Conclusion

The proposed modifications to Condition/Mitigation Measure 44, Condition/Mitigation Measure 49, and Condition 59 would reduce impacts to drainage features as compared to the Final EIR and would not alter drainage patterns in a manner that would increase on- or off-site erosion, sedimentation, or flooding. The proposed modifications would cause no new impacts and the impacts described in the Final EIR would not increase in severity. The proposed modifications to the Use Permit that would allow the relocation of Americano Creek (Condition 101 and Condition/ Mitigation Measure 133) would not result in a new or more severe significant impact related to alteration of the existing drainage pattern and the potential for erosion or siltation on- or off-site.

Cumulative Impacts

The proposed modifications to the Use Permit, with implementation of existing Conditions/ Mitigation Measures, would not result in new or substantially more severe significant impact associated with hydrology and water quality. Given that, and considering that there are no cumulative projects in the vicinity identified by Sonoma County PRMD, the proposed modifications to the Use Permit would not result in a new or substantially more severe cumulatively significant impact associated with hydrology or water quality.

3.2.4 References

Sonoma County PRMD, 2005. *Mitigated Negative Declaration / Initial Study and Mitigation Monitoring Program: Signalization of Stony Point Road at Roblar Road.* Prepared for Sonoma County Department of Transportation & Public Works. October, 2005.

Sonoma County, 2014. *Dam Failure Inundation Hazard Areas.*

Sonoma County Water Agency, 1983. *Flood Control Design Criteria Manual for Waterways, Channels, and Closed Conduits*. August, 1983.

State Water Resources Control Board (SWRCB), 2015. *2012 California Integrated Report Clean Water Act Sections 303(d) and 305(b).* April 8, 2015.

Winfield, Ted, Ph.D. 2017. *Conceptual Planting Plan for Realigned Americano Creek.* August 21, 2017. (Included in this document as Appendix A.)

This page intentionally left blank

3.3 Biological Resources

3.3.1 Introduction

This section describes changes to the environmental and regulatory setting as they pertain to botanical, wildlife, and wetland resources, and analyzes the potential for the proposed modifications to the Use Permit Conditions of Approval (COA), as described in Chapter 2, Project Description, to impact sensitive and regulated biological resources. This section examines whether any new or substantially more severe significant impact would result from changes in the project or its circumstances, or new information that was not known and could not have been known through the exercise of reasonable diligence at the time of certification of the Final Environmental Impact Report (Final EIR).

The affected environment, regulatory setting, and analytical methodology from the Final EIR are relied upon to the extent practicable, and are discussed only to the extent that those factors differ from those described in the Final EIR.

This section evaluates the potential for new or substantially more severe impacts with respect to the following:

- impacts to jurisdictional wetlands and waters of the U.S. and State;
- loss of individuals or habitat for rare or special-status plant or wildlife species;
- disturbance to nesting raptors or migratory birds;
- loss of sensitive native plant communities;
- blockage or disruption of major wildlife migratory corridors, and;
- loss of trees protected by the County of Sonoma tree ordinance.

3.3.2 Setting

Environmental Setting

Section IV.D, Biological Resources, of the Final EIR describes the Quarry project setting in southwestern Sonoma County. Vegetation consists of non-native grasslands, black oak and coast live oak woodlands, riparian woodland, and wetland communities including freshwater seep, seasonal wetland, ponds, and drainages. The setting of the proposed modifications to the Use Permit, including the area around the Stony Point Road/Roblar Road intersection, the portion of Roblar Road that would be widened, and the area affected by the relocation of Americano Creek, includes non-native grasslands, riparian woodland, seasonal drainage (Americano Creek), and seasonal wetlands. These areas provide potential habitat for California tiger salamander (*Ambystoma californiense*) and California red-legged frog (*Rana draytonii*). See biological resources information presented in Final EIR Section IV.D and Section IV.E, Transportation and Traffic, for more information. The proposed changes to the design for signalization of the Stony Point Road/Roblar Road intersection rely upon the description in the Initial Study/Mitigated Negative Declaration (IS/MND) (Sonoma County PRMD, 2005).

No changes to the natural environment have occurred to these areas since certification of the Final EIR. For example, the distribution of willow riparian habitat and seasonal wetlands on the portion of the Quarry site along Roblar Road and adjacent to Americano Creek was presented in Final EIR Figure IV.D-1 (Section IV.D, p. IV.D-3). In June 2015, the U.S. Army Corps of Engineers (USACE) verified the extent of Waters of the U.S. on the Quarry Site, along Roblar Road between the Quarry entrance and Access Road 2, and along Access Road 2 (U.S. Army Corps of Engineers, 2015). Based on the verified delineation, the extent of jurisdictional aquatic features in the Americano Creek relocation area is presented in Figure 2-8, *Proposed Relocation of Americano Creek,* in Chapter 2, Project Description.

The status and distribution of special-status plant and wildlife species on and near the areas that would be affected by the proposed modifications to the Use Permit were reexamined in support of this supplemental environmental review. The California Natural Diversity Database (CNDDB) reports no new special-status plant or wildlife species in the area, nor additional species from the regional area that were not considered in the prior analysis (CDFW, 2017). No new special-status plant or wildlife species were identified that could occur in the area that were not discussed in the Final EIR or in the IS/MND for the Stony Point Road/Roblar Road intersection signalization project (Sonoma County PRMD, 2005).

Regulatory Setting

The following regulatory changes that affect biological resources in federal, state, or local laws, regulations, policies, or plans relevant to the Quarry project have occurred since certification of the Final EIR.

Since publication of the Final EIR, the foothill yellow-legged frog (*Rana boylii*) has been identified as a candidate species under the California Endangered Species Act. This species was previously a California Species of Special Concern. As identified in Final EIR Section IV.D, this species was not detected during multiple years of surveys on the Quarry site; likely because its primary habitat, which consists of perennial rocky streams, is absent from the Quarry site and environs.

On November 24, 2014, the Sonoma County Board of Supervisors adopted Ordinance No. 6089, which, among other actions, amended stream protection policies for riparian corridors to implement Sonoma County General Plan 2020. The purpose of the ordinance is to protect and enhance riparian corridors and functions while balancing the need for other land uses, including mining, with the preservation of riparian vegetation, protection of water resources, floodplain management, wildlife habitat and movement, stream shade, fisheries, water quality, channel stability, groundwater recharge, opportunities for recreation, education and aesthetic appreciation and other riparian functions and values. The ordinance establishes allowable uses within a streamside conservation area. The width of the streamside conservation area is dependent on the size of the stream. For Americano Creek, it is 200 feet from the top of the bank. The ordinance also provides the basis for approval of other activities or uses not meeting the list of allowed land uses within a riparian corridor with an exception under Section 26-65-030 (Prohibited Uses and Exceptions), subject to a use permit and approval of a conservation plan. Actions such as the

proposed relocation of Americano Creek may be found consistent with the Riparian Corridor Ordinance if an approved conservation plan demonstrates that relocation enhances the riparian corridor and riparian and stream functions.

On August 31, 2011, the U.S. Fish and Wildlife service promulgated a map of approximately 47,383 acres of critical habitat for the California Tiger Salamander (CTS) in the Federal Register. The 47,383 acres encompasses most of the Santa Rosa Plain, from Windsor to southern Cotati, including a portion in the southwest that extends into the Roblar Valley. On October 23, 2012, the Board of Supervisors adopted map amendments to the Open Space Element of the General Plan to designate critical habitat for the California Tiger Salamander. Whereas the General Plan maps had previously identified the "potential range" of the California Tiger Salamander on the open space maps, they now specifically referenced the federal "critical habitat" map. The map change was treated as a technical data change and not as a substantive change in land use requirements.

The 100-foot setback to critical habitat required by Section 26-09-040(d) of the Mining Ordinance does not apply retroactively to the Roblar Road Quarry because the project was approved in 2010, which preceded the General Plan critical habitat designation in 2012. The project is required to comply with the federal and State endangered species acts, including mitigating impacts to the California Tiger Salamander. The approved Quarry project includes Condition/Mitigation Measure 143 and 144 to mitigate potential impacts to CTS to less than significant as noted below under Impact 3.3-3.

3.3.3 Environmental Impacts and Mitigation Measures

Significance Thresholds

This analysis uses the same significance criteria described in Final EIR, which are restated below. The following impact analysis considers whether the proposed modifications to the Use Permit, or changes to the setting in which the Quarry project would take place, would result in new or substantially more severe significant impacts than identified in the Final EIR, with respect to the following:

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

- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation or riparian corridor ordinances; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Impacts and Mitigation Measures

The proposed modifications to the design of the Stony Point Road/Roblar Road intersection and the Roblar Road widening improvements would not result in a new or more severe significant biological impact than those identified in the IS/MND for the intersection signalization or in the Final EIR because the proposed changes would generally take place within the footprint of the improvements analyzed in the previous environmental documents. The approved Quarry project did not anticipate that the relocation of Americano Creek would be necessary to accommodate the widening of Roblar Road along the frontage of the Quarry property, but mitigation measures identified in the Final EIR for biological impacts of the road widening (Mitigation Measures E.8e through E.8j), which were adopted as Conditions/Mitigation Measures 74-79, would apply to the Applicant's proposed widening design and would reduce potential impacts to less than significant. Mitigation measures for avoiding and minimizing impacts of the intersection signalization (Mitigation Measures 4.1 through 4.5 from the IS/MND, which were adopted to mitigate potential biological resources impacts associated with the County's preliminary design for the intersection), would apply to the Applicant's proposed intersection design, and would also be sufficient to mitigate potential impacts to less than significant. All of the mitigation measures from the IS/MND were included in the Final EIR as Mitigation Measure E.9 and adopted as Condition/Mitigation Measure 86. Those mitigation measures include protecting California tiger salamander and their habitat, and protecting trees in accordance with County regulations, including during the nesting season. The impact discussion below focuses on the Applicant's proposed relocation of Americano Creek and modification of Condition 101 and Condition/Mitigation Measure 133, as described in Chapter 2, Project Description.

Impacts

Impact 3.3-1: The proposed relocation of Americano Creek would involve construction and grading activities that could disturb or remove wetland and riparian habitat. (*Beneficial Impact / No New or Substantially More Severe Significant Impact, After Mitigation*)

Final EIR Impact D.1 concluded that the Quarry project would directly impact wetlands, other waters, and riparian habitat, resulting in the permanent fill of potentially jurisdictional wetlands or other waters of the U.S. and waters of the State. The Final EIR specified Mitigation Measures D.1a (mitigate the filling or excavating of jurisdictional wetlands by conducting a formal wetland delineation, compensating for loss of jurisdictional wetlands at specified ratios, and implementation of a five-year monitoring program with applicable performance standards[1]); D.1b (avoid all

1 Performance standards specified for the monitoring program for creation of compensatory wetlands include: 80 percent survival rate of restoration plantings native to local watershed; absence of invasive plant species; absence of erosion features; and a functioning, and self-sustainable wetland system.

potential jurisdictional wetlands and riparian habitat located along the southern boundary [i.e., Ranch Tributary] and the southwestern corner [i.e., seasonal wetlands on valley floor adjacent to Americano Creek] of the property); and D.1c (monitor base flows in Ranch Tributary and if necessary augment them with releases of stored surface water) to reduce the Quarry project impacts to wetlands and riparian habitats to a less-than-significant level. These mitigation measures were adopted as Conditions/Mitigation Measures 132, 133, and 115 respectively.

The proposed relocation of Americano Creek to accommodate the required widening of Roblar Road would result in the filling of the existing Americano Creek channel along most of its course on the Quarry project site, and relocation of the creek away from Roblar Road. Most of the existing riparian habitat adjacent to the south side of the existing creek would not be disturbed. A review of the 2015 USACE wetland delineation for the Quarry property and roadway alignment (U.S. Army Corps of Engineers, 2015) and the proposed relocation of Americano Creek shown in Figure 2-8 in Chapter 2, Project Description, shows that approximately 750 feet of Americano Creek would be filled to accommodate Roblar Road widening. This would fill an estimated 0.40 acre (17,599 s.f.) of waters of the State, which includes 0.18 acre (7,701 s.f.) of waters of the U.S. The 2015 USACE wetland delineation did not clarify the extent of federally-jurisdictional wetlands within the waters of the U.S.; hence, for this assessment, the entire 0.18-acre area was presumed to support federally jurisdictional wetlands. These jurisdictional areas include a portion of the riparian area along the south side of the existing creek, which is a part of an approximately 0.90-acre riparian area that supports native willows [arroyo willow (*Salix lasiolepis*), Pacific willow (*S. lucida* spp. *lasindra*), and red willow (*S. laevigata*)]. Only a portion of this riparian area would be removed to accommodate road widening and creek relocation. The remainder of this riparian area would not be disturbed. In addition, the realigned channel would fill (remove) an approximately 0.05-acre seasonal wetland identified as SW-17 (Figure 2-8 in Chapter 2, Project Description).

As part of the proposed modifications to the Use Permit, a realigned Americano Creek channel would be created that measures approximately 935 feet long with a 14-foot wide creek bed covering approximately 0.30 acre and an additional 0.45 acre of low flood terraces. The creek banks would be vegetated with willows and other native species as identified in the Applicant's "Conceptual Planting Plan for Americano Creek Realignment" (Winfield, 2017; included as Appendix A; hereafter, "Planting Plan"). A new roadside ditch would be created adjacent to the widened Roblar Road.

The Applicant proposes to modify Condition/Mitigation Measure 133 to state that all potential jurisdictional wetlands and riparian habitat located along the southern boundary (i.e., Ranch Tributary) and the southwestern corner (i.e., seasonal wetlands on the valley floor adjacent to Americano Creek) of the Quarry site would be avoided "as feasible." This change would enable the widening of Roblar Road and the proposed relocation of Americano Creek, since both the road widening and creek relocation would necessarily impact existing wetlands. This would increase the severity of Final EIR Impact D.1, by increasing the extent of wetlands that would be filled.

Condition/Mitigation Measure 132, which requires compensatory mitigation for the fill of jurisdictional waters, applies to the proposed modifications to the Use Permit, and would be effective in compensating for the increased loss of wetlands. While there would be a temporary loss of function on approximately 750 linear feet of Americano Creek while revegetated areas become established, creek relocation would not cause a long-term loss of wetland functions or habitat values because: 1) a greater area of wetlands would be created than filled: about 0.23 acres of wetland (0.18 acres of existing channel and associated riparian vegetation, plus 0.05 acres of seasonal wetland) would be filled, and about 0.30 acres of wetland/stream channel would be created. In addition, 0.45 acre of low flood terraces (waters of the State) would be created; 2) with implementation of the Planting Plan, the enhanced areas would provide similar or better habitat values than the existing creek; and 3) long-term monitoring provided in Mitigation Measure D.1a (COA 132) would ensure that the restored areas meet minimum performance criteria and adequately enhance functions and values of the created riparian corridor. Therefore, with the continued application of Condition/Mitigation Measure 132, the proposed modifications to the project would not result in any new or substantially more severe significant impacts to wetlands or riparian habitat. However, the Applicant's proposed modification of Condition/Mitigation Measure 133, which would add "as feasible" to the requirement to avoid wetlands and riparian habitat, would introduce uncertainty regarding the extent of wetland and riparian habitat that would be disturbed or destroyed. This could cause a new or more severe significant impact to wetlands and riparian habitat. Therefore, the Applicant's proposed revisions are rejected, and other revisions to Condition/Mitigation Measure 133 are specified below as mitigation.

In addition, Condition/Mitigation Measure 133 has been revised to confirm that the referenced 100-foot setback from critical habitat (Chapter 26A County Code) does not apply retroactively to sites that were reviewed pursuant to the California Environmental Quality Act and approved prior to the designation of relevant critical habitat in the General Plan. The Roblar Road Quarry was approved by the Board of Supervisors in December, 2010. The site was included in a federal critical habitat rulemaking by the U.S. Fish and Wildlife Service in August, 2011. On October 23, 2012, the Board of Supervisors adopted map amendments to the Open Space Element of the General Plan to designate critical habitat for the California Tiger Salamander. However, these setback provisions were not intended to be applied retroactively, and independent of any setbacks, the mitigation measures already mitigated the impact to California Tiger Salamanders to a level that is less than significant. The approved Quarry project includes Condition/Mitigation Measure 143 and 144 to mitigate potential impacts to CTS to less than significant as noted below under Impact 3.3-3.

> **Mitigation Measure 3.3-1:** Revise wording of Condition/Mitigation Measure 133 as follows to confirm that the referenced 100-foot setback to critical habitat does not apply retroactively and to allow creek relocation, but with specific parameters for wetland and riparian habitat disturbance (additions to the text of the adopted Condition are underlined):
>
> > **133.** Avoid all potential jurisdictional wetlands and riparian habitat located along the southern boundary (i.e., Ranch Tributary) and the southwestern corner (i.e., seasonal wetlands on valley floor adjacent to Americano Creek) of the property, except as shown in the Applicant's plans for relocation of Americano Creek, specifically the

drawing by BKF Engineers, "Americano Creek Relocation" dated September 1, 2017 and the "Conceptual Planting Plan for Realigned Americano Creek" prepared by Ted Winfield, Ph.D., dated August 21, 2017. Prior to construction activities, the project Applicant shall take appropriate measures to protect the wetland and riparian habitat located in these areas. The following protection measures are to be included in the grading and Reclamation Plan:

- Installation of exclusionary construction fencing along the southern property line as well as around the two seasonally wetlands identified on [Final EIR] Figure IV.D-1 to protect these features from all project construction and operation activities;
- Implementation of measures to control dust in adjacent work areas (see comprehensive dust control program identified in Condition 161);
- Maintenance of the hydrologic inputs (flow) to the seasonally wet area in the southwestern corner of the property, unless otherwise approved by resource agencies.
- Except as stated above for the relocation of Americano Creek, the project Applicant shall maintain the minimum allowed 200-foot and 100-foot setback for quarry mining operations from stream banks (Americano Creek and Ranch Tributary) respectively and critical habitat areas designated in the Sonoma County General Plan (Chapter 26A, County Code), provided, however, that setbacks from designated critical habitat do not apply to sites that were reviewed pursuant to the California Environmental Quality Act and approved prior to the designation of the relevant critical habitat in the General Plan.

Significance with Mitigation: The additional revisions to Condition/Mitigation Measure 133 would ensure that disturbance of wetlands and riparian habitat would be restricted to the areas shown in the Applicant's plans for relocation of Americano Creek and evaluated in this document. This would ensure that all impacts to wetlands and riparian areas are adequately mitigated. The additional specification regarding setbacks from designated critical habitat would clarify that the Quarry project is consistent with Chapter 26A of the County Code. Therefore, with implementation of Mitigation Measure 3.3-1, the impact would be less than significant.

Impact 3.3-2: Project construction and grading activities associated with the proposed relocation of Americano Creek could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or riparian corridor ordinance. (*No New or Substantially More Severe Significant Impact*)

Final EIR Impact D.2 found that project construction and grading activities within the proposed aggregate mining area would impact protected trees, and identified this as a significant impact. Mitigation Measures D.2a through D2e (adopted as Conditions/Mitigation Measures 132 through 137) were specified to reduce the impact to less than significant.

Final EIR Impact E.8 found that the roadway widening improvements specified in Mitigation Measures E.3a, E.4a, and E.5a would also have the potential to result in direct or indirect impacts

to several dozen mature trees along the Roblar Road and Pepper Road alignments, including, but not limited to black oak, Coast live oak, cypress, eucalyptus, redwood and pine. The Final EIR identifies Mitigation Measure E.8g to ensure that removal of any trees on private property in conjunction with the roadway widening improvements must be in accordance with the following: 1) the County Tree Protection and Replacement Ordinance; 2) the Sonoma County Valley Oak Stewardship Guidelines for valley oak trees removed within the Valley Oak Habitat combining district; and 3) the Heritage or Landmark Tree Ordinance. This mitigation measure was adopted as Condition/Mitigation Measure 76. The Applicant's proposed design for the widening of Roblar Road would not result in a new or more severe impact to heritage, landmark, or other protected trees, since the Final EIR already identifies impacts to such trees and mitigates for their potential loss through implementation of Condition/Mitigation Measure 76. Potential impacts to riparian tree species are discussed separately below.

The Tree Protection and Replacement Ordinance (No. 4014) of the Sonoma County Code sets preservation and protection standards for protected trees with a 9-inch or greater diameter at breast (standard) height (dbh). The area that would be affected by the proposed relocation of Americano Creek does not support heritage or landmark trees that are protected in accordance with the Sonoma County tree ordinance.

The proposed relocation of Americano Creek would result in the fill of approximately 750 feet of Americano Creek and the related removal of a portion of the 0.90-acre riparian vegetation that grows in and adjacent to the creek. Vegetation removal would affect dense stands of Arroyo willow riparian woodlands, dominated in varying degrees by arroyo willow, red willow, and Pacific willow, which occur adjacent to Roblar Road. The replacement of willow trees associated with riparian habitat is provided under Final EIR Mitigation Measures D.1a-e (Conditions/Mitigation Measures 132-137).

The Sonoma County Riparian Protection Ordinance (No. 6089) provides a basis for County approval of the proposed relocation of Americano Creek and associated earthwork in and near the stream channel and riparian corridor. The ordinance establishes that vegetation removal may occur within a stream channel or riparian corridor to accommodate certain allowable uses provided that a conservation plan is adopted that provides for the appropriate protection of the biotic resources, water quality, floodplain management, bank stability, groundwater recharge, and other applicable riparian functions. The Planting Plan (Appendix A) provides for the appropriate protection of biotic resources, water quality, and other riparian functions. Through implementation of the Planting Plan, the relocated creek will provide equivalent or superior ecological benefits to the existing riparian habitat, once vegetation becomes established on the site.

In summary, with the implementation of the proposed creek relocation and Planting Plan, and application of the Conditions of Approval 132-137, the proposed encroachment into the riparian corridor and relocation of Americano Creek would not result in a new or substantially more severe significant impact or conflict with local policies or ordinances as compared to the approved project.

Impact 3.3-3: The proposed relocation of Americano Creek could disturb habitat for California red-legged frog, foothill yellow-legged frog, western pond turtle, or California tiger salamander. (*No New or Substantially More Severe Significant Impact*)

The Final EIR explained in Impact E.8 that there were no documented California red-legged frog (CRLF) breeding sites within 1,000 feet of the Roblar Road alignment, but that Americano Creek provided potential aquatic habitat (including breeding habitat) for the CRLF, and that other potential aquatic habitat (although no breeding habitat) may also be found in the other water courses along the sections of Roblar Road where widening would occur. CRLF could also be encountered in upland areas of water courses along or across the Roblar Road alignment during routine overland movements by adults and juveniles. The foothill yellow-legged frog (FYLF) has not been identified or documented on the Roblar Road alignment. Furthermore, Impact E.8 disclosed that road widening could impact California tiger salamander (CTS), though this species was not known to be present along the section of Roblar Road slated for widening. As a result, the Final EIR found that the widening of Roblar Road could remove potential habitat for the CRLF, CTS, the FYLF and western pond turtle, and specified Mitigation Measure E.8h (implement measures to minimize and avoid take of CRLF and CTS that would additionally benefit pond turtles and FYLF, if present). This measure was adopted as Condition/Mitigation Measure 77.

The Final EIR's analysis of Alternative 2, and subsequent analysis of Modified Alternative 2 (ESA, 2010), found that construction and grading activities on the alternative haul route could encounter special status wildlife species such as CRLF, FYLF and western pond turtle, which may occur in affected portions of Americano Creek as well as seasonal wetlands and grasslands along the alternative haul route. The implementation of measures to minimize and avoid take of CRLF and additionally benefit pond turtles and FYLF, including the training for construction personnel for these species, and monitoring by a USFWS-approved biologist within 100 feet of creek corridors and aquatic habitat that could support CRLF (similar to that contained in Mitigation Measure E.8h), would reduce potential impacts to a less-than-significant level. These measures apply to the Applicant's proposed design for the widening of Roblar Road, and would be equally effective in avoiding or reducing impacts to these species. Therefore, implementation of the Applicant's proposed design for widening Roblar Road would cause no new or substantially more severe impacts to special status amphibians or reptiles beyond those identified and mitigated in the Final EIR.

The relocation of Americano Creek would affect an area in the southwest corner of the Quarry site that supports upland and non-breeding aquatic habitat that could intermittently be used by CRLF, CTS, and western pond turtles. Rocky perennial stream habitat that could support FYLF does not occur on the project site. The design for the realigned Americano Creek channel and floodplain indicates that the new channel will be approximately 935 feet long with a 14-foot wide creek bed covering approximately 0.301 acres. The total footprint of the realigned Americano Creek channel and floodplain terraces would be approximately 1.84 acres. Despite short-term impacts that would temporarily cause a loss of habitat for CRLF, CTS, and western pond turtle in the affected portions of Americano Creek, upon completion the realigned creek would provide habitat values that are comparable or better than existing conditions for these three potentially

affected species. Therefore, once completed, the proposed realignment of Americano Creek would not result in a new or more substantially more severe significant impact to these species.

Realignment of Americano Creek could result in short-term impacts to CRLF, CTS, and western pond turtle, but any impacts would be mitigated to a less-than-significant level through implantation of avoidance and minimization measures included in the Final EIR and adopted as COA. Mitigation Measure D.3 from the Final EIR includes measures to avoid and minimize take of individual CRLF and western pond turtles during construction and operations. This measure, which was adopted as Condition/Mitigation Measure 138, would reduce the impacts on these species associated with the relocation of Americano Creek to a less-than-significant level. Mitigation Measure D.11a from the Final EIR (adopted as Conditions/Mitigation Measures 143 and 144) would reduce to less-than-significant potential impacts to CTS associated with the relocation of Americano Creek. To reduce potential impacts to individual salamanders, this measure requires construction worker training, preconstruction surveys, and a USFWS-approved biologist on-site during initial vegetation removal and grading activities. Measure D.11a additionally provides consistency with federal and State requirements by requiring mitigation for impacts to CTS upland habitat provided at a ratio of no less than 1:1. With application of these Conditions/Mitigation Measures, no new or substantially more severe significant impacts to special status reptiles or amphibians would result of the proposed modifications to the Use Permit.

Impact 3.3-4: The proposed relocation of Americano Creek could disturb active nests of raptors, burrowing owls, and other special-status birds. (*No New or Substantially More Severe Significant Impact*)

Final EIR Impact E.8 and the analysis of the approved Modified Alternative 2 haul route found that the widening of Roblar Road and development of private access roads could impact special status bird species, but implementation of Mitigation Measures D4a and D4b (also identified as Mitigation Measure E.8i, which was adopted as Condition/Mitigation Measure 78) would reduce these impacts to less than significant. The Applicant's proposed design for widening of Roblar Road could similarly impact special status bird species, but the application of Condition/Mitigation Measure 78 would ensure that no new or substantially more severe significant impact would occur.

The area that would be affected by the proposed relocation of Americano Creek contains habitat for nesting birds in grasslands and in riparian corridors (including willow trees) associated with Americano Creek, and in the seasonal wetlands that occur in and adjacent to this area. Construction activities associated with the creek relocation could result in the impacts identified in the EIR, but implementation of Mitigation Measures D.4a and D4b (Conditions/Mitigation Measures 139 and 140) during creek relocation would ensure that pre-construction surveys would be conducted during the nesting season and that adequate buffers would be established for any active nests. These measures would avoid direct and indirect impacts to nesting birds. With implementation of the Final EIR mitigation measures and adopted COA, the proposed relocation of Americano Creek would not result in a new or substantially more severe impact to special status birds.

Impact 3.3-5: Project construction and grading activities associated with the relocation of Americano Creek and the widening of Roblar Road could result in direct impacts to American badger and the loss of annual grasslands that support this species. (*No New or Substantially More Severe Significant Impact*)

Final EIR Impact E.8 and the analysis of Alternative 2 describe the presence of American Badger (*Taxidea taxus*) in low-lying areas near Roblar Road. The Final EIR identifies as significant the potential for badgers to be directly affected by vehicle- and construction-related mortality associated with the widening of Roblar Road and the development of private access roads. Final EIR Mitigation Measure E.8j extends Mitigation Measure D.5 (adopted as Condition 141), which was included in the Final EIR to avoid and minimize similar impacts to badgers from development of the Quarry, to the development and use of the alternative haul route, including the construction of Roblar Road improvements. Implementation of this condition would ensure that implementation of the Applicant's proposed design for the widening of Roblar Road does not result in a new or substantially more severe significant impact to American badgers.

Badger dens have not been identified in the low-lying area that would be affected by the relocation of Americano Creek. This area is suitable for badger foraging, but unsuitable for badger denning. Based on site observations, the proposed creek relocation would not impact active badger dens. No new or substantially more severe significant impacts to badgers would be expected with the proposed modifications to the Use Permit, beyond those identified in the Final EIR.

Impact 3.3-6: Project construction and grading activities within the creek relocation area would not disturb active roosts of special-status bat species. (*No New or Substantially More Severe Significant Impact*)

Final EIR Impact D.6 explained that the approved project could disturb active bat roosts and result in direct mortality of special-status bats but implementation of Mitigation Measure D.6 (adopted as Condition/Mitigation Measure 142), requiring preconstruction surveys and creation where necessary of no-disturbance buffers during ground-clearing, grading, and building demolition activities, would reduce these impacts to a less than significant level. Potential foraging habitat for special-status bat species is present in the area that would be affected by the proposed relocation of Americano Creek and by the widening of Roblar Road; however, roosting habitat was not identified in the proposed creek relocation area or in areas that would be affected by roadway widening. Therefore, neither the proposed creek relocation nor proposed design for widening of Roblar Road would be expected to disturb or destroy active roosts of special-status bat species, or result in the mortality of bats. No new or substantially more severe impacts to bats are anticipated.

Impact 3.3-7: Proposed modifications to the Use Permit could result in adverse impacts to the surface hydrology and water quality of on-site and surrounding drainages, including Americano Creek, that may impact special-status fish species known to occur downstream of the Quarry project site. (*No New or Substantially More Severe Significant Impact*)

As discussed in Final EIR Impacts C.1 through C.5, presented in Section IV, Hydrology and Water Quality, the Quarry project could adversely affect the surface water hydrology and water quality of onsite drainages, including Ranch Tributary and Americano Creek. These impacts were the basis for the Final EIR's finding in Impact D.7 that the Quarry project could have adverse effects on special-status fish species (central California coast steelhead [*Oncorhynchus mykiss*] and tidewater goby [*Eucyclogobius newberryi*]), known to occur seven miles downstream from the Quarry site in the lower Americano Creek watershed.

As discussed in Final EIR Section IV.C, Hydrology and Water Quality, the implementation of Mitigation Measures C.1 through C.5 would reduce to less-than-significant potential hydrology and water quality impacts such as increased peak flows, erosion and sedimentation, water contamination, and baseflow reductions. These measures would also reduce to less than significant the impacts of Quarry development on special-status fish species, such as increased bank erosion, increased turbidity, spawning habitat degradation, stress or mortality due to water contamination, and reduction of summer and fall habitat availability and quality. These measures, which were adopted as Conditions/Mitigation Measures 17, 21, 22, 100, and 109-115, were found to be sufficient to reduce the hydrology and water quality impacts, and the related impacts on special status fish species, to less than significant.

Similarly, the Final EIR identified potential impacts to the hydrology and water quality of Americano Creek associated with the widening of Roblar Road (Impact E.8) and specified Mitigation Measures E.8c and E.8d (adopted as Conditions/Mitigation Measures 72 and 73) to reduce these impacts to less than significant.

As stated in Section 3.2, *Hydrology and Water Quality*, the application of these same mitigation measures/COA to the construction of the Applicant's proposed design of Roblar Road widening and to the proposed relocation of Americano Creek would ensure that no new or substantially more severe significant impact on special-status fish species would occur, as compared to the approved Quarry project.

Cumulative Impacts

As discussed above, with implementation of existing Conditions/Mitigation Measures, the proposed modifications to the Use Permit Conditions of Approval would not result in a new or substantially more severe impact to biological resources. Furthermore, Sonoma County PRMD has not identified any potentially cumulative projects in the regional project area. Therefore, no new or substantially more severe significant cumulative impacts to biological resources would occur as a result of the proposed changes to the Use Permit.

3.3.4 References

California Department of Fish and Wildlife (CDFW). 2017. California Natural Diversity Data Base, Rarefind. Query of the Two Rock, Novato, Petaluma, Petaluma River, and Sears Point USGS 7.5-minute topographic quadrangles and Sonoma County. Accessed on September 14, 2017.

ESA, 2010. Memorandum, ESA to Sonoma County PRMD, subject: Roblar Road Quarry Alternative Haul Route Alignment. October 19, 2010.

Sonoma County PRMD, 2005. *Mitigated Negative Declaration / Initial Study and Mitigation Monitoring Program: Signalization of Stony Point Road at Roblar Road.* Prepared for Sonoma County Department of Transportation & Public Works. October, 2005.

Winfield, Ted, Ph.D. 2017. *Conceptual Planting Plan for Realigned Americano Creek.* August 21, 2017. (Included in this document as Appendix A.)

U.S. Army, Corps of Engineers, 2015. Letter from Jane M. Hicks, Chief, Regulatory Division, San Francisco District, to Ted Winfield, Ph.D., approving jurisdictional determination of extent of navigable waters of the U.S. File #2009-00147N. July 31, 2015.

This page intentionally left blank

3.4 Transportation and Traffic

3.4.1 Introduction

This section describes the potential traffic and traffic hazards issues related to the proposed modifications to the Use Permit Conditions of Approval (COA), and analyzes whether a new or substantially more severe significant impact would result from changes in the Quarry project or its circumstances, or new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Final Environmental Impact Report (Final EIR) was certified. The environmental setting presented in this section updates, as appropriate, information presented in the Final EIR on the local roadway network, operating levels of service (LOS), and bicycle, pedestrian, and traffic safety (collision history).

3.4.2 Setting

Environmental Setting

Roadway System and Site Access

In general, limited changes have occurred to the roadway system (regional and local roads) serving the project area since certification of the Final EIR, and no changes have occurred that are relevant to this environmental analysis. The one change of note was the opening of a new "diamond" lane for High Occupancy Vehicles on U.S. 101 between Petaluma and Santa Rosa.

Existing Traffic Operating Conditions

ESA conducted new traffic counts on Roblar Road west of the Quarry site (updating the 2005 traffic counts used for the Final EIR). ESA conducted vehicle volume and classification data on Roblar Road, using 24-hour count machines placed 0.65 mile west of Canfield Road for a week-long period from May 11-17, 2017. Based on these counts (see **Table 3.4-1**), Roblar Road carries an average weekday daily traffic volume of approximately 1,700 vehicles per day (vpd) near Canfield Road; weekend volumes are higher, with about 2,220 vpd. The average weekday daily truck volume on this road segment is about 2.3 percent (40 of 1,705 vehicles); there are very few trucks (4 of 2,223 vehicles) on weekends, as shown in Table 3.4-1 below.

TABLE 3.4-1
TRUCK AXLE CLASSIFICATION PERCENTAGES

Road Segment	Average Daily Traffic	Total Trucks	Total Truck %	Truck Axles		
				2	3	4+
Roblar Road (0.65 miles west of Canfield Road)						
Weekdays	1,705	40	2.3	13	21	6
Weekend Days	2,223	4	0.2	1	1	2

SOURCE: ESA, 2017

ESA also conducted new traffic counts in May 2017 at the Stony Point Road/Roblar Road intersection (updating the 2005 traffic counts used for the Final EIR). Counts were conducted during the weekday a.m. and p.m. peak periods (7:00 to 9:00 a.m., and 4:00 to 6:00 p.m.), and the Saturday midday peak period (11:00 a.m. to 1:00 p.m.).

The operation of a local roadway network is commonly measured and described using a grading system called Level of Service (LOS), which qualitatively characterizes traffic conditions associated with varying levels of vehicle traffic, ranging from LOS A (indicating free-flow traffic conditions with little or no delay experienced by motorists) to LOS F (indicating congested conditions where traffic flows exceed design capacity and result in long delays).

The level of service calculation methodology for intersections depends on the type of traffic control device, i.e., traffic signals or stop signs. ESA conducted intersection level of service calculations at the unsignalized Stony Point Road/Roblar Road intersection using the methodology for side-street stop (sign)-controlled (SSSC) intersections contained in Chapter 17 of the 2000 *Highway Capacity Manual* (Transportation Research Board, 2000). The LOS rating is based on the control delay for the stop-controlled movement expressed in seconds per vehicle. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The control delay was calculated using the TRAFFIX analysis software. As shown in **Table 3.4-2**, the side-street stop-controlled intersection of Stony Point and Roblar Roads is currently operating at an unacceptable LOS F during the weekday a.m. and p.m. peak hours, and at an acceptable LOS D during the Saturday midday peak hour, which is similar to the existing LOS reported in the Final EIR (the Saturday midday service level was an acceptable LOS C in the Final EIR).

TABLE 3.4-2
EXISTING PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)

		Weekday				SAT Midday	
		AM		PM			
Intersection	**Control**[a]	**LOS**[b]	**Delay**[c]	**LOS**[b]	**Delay**[c]	**LOS**[b]	**Delay**[c]
Roblar Road at Stony Point Road	SSSC	F	64.2	F	69.0	D	26.6

[a] SSSC = Side-street stop (sign) controlled.
[b] Worst movement LOS at side-street stop-controlled intersections.
[c] Average Stopped Delay expressed in terms of Seconds per Vehicle.

SOURCE: ESA (2017) using TRAFFIX and the *2000 Highway Capacity Manual* operations analysis methodology.

Vehicle Speed

The speed limit along the approved 1.6 mile segment of the Roblar Road haul route, extending from the project access to Access Road 2 has a *prima facie* speed of 55 mph, except for two advisory 30 mph curves, one 40 mph curve, and one 45 mph curve.

Collision History

ESA reviewed five years of collision records (2011-2015) from the California Highway Patrol for Roblar Road between Valley Ford Road and Stony Point Road (see **Table 3.4-3**) (CHS Consulting Group, 2016). As shown, Roblar Road has an accident rate of 0.64 per million vehicle miles traveled (MVMT) below Sonoma County (1.23), Caltrans District 4 (1.09), and statewide (1.01) averages for two-lane roads in rural settings. Of the 17 collisions recorded over the five-year period on Roblar Road, none involved trucks, and none occurred in the segment between the Quarry site access and Access Road 2.

TABLE 3.4-3
ACCIDENT HISTORY ON ROBLAR ROAD IN PROJECT AREA

Roadway (Segment)	Distance (miles)	2011	2012	2013	2014	2015	2011-2015 Average	Accident Rate (per MVMT)[a]
Roblar Road (Valley Ford Rd to Stony Point Rd)	6.5							
Total Accidents		4	3	1	5	4	3.4	0.64
Accidents Involving Trucks		0	0	0	0	0	0	
							Accident Rates – 2014 (accidents per million vehicle miles traveled)	
							Sonoma County Average: 2-lane rural roads	1.23
							Caltrans District 4: 2-lane rural roads	1.09
							Statewide Average: 2-lane rural roads	1.01

[a] Million Vehicle Miles Traveled

SOURCES: CHS Consulting Group, 2016; Caltrans, 2017.

Compared to Roblar Road's accident history reported in the FEIR (for the five-year period of 2002 to 2006), collisions have decreased substantially, from 32 to 17 total collisions and 1.21 to 0.64 accidents per MVMT.

Pedestrian and Bicycle Traffic

No changes have occurred to the pedestrian and bicycle facilities serving the project area since certification of the Final EIR. That is, there are no pedestrian facilities, except for school route crosswalks on Roblar Road for Dunham Elementary School east of the Quarry site, and no designated bike facilities.

To evaluate existing bicycle activity on Roblar Road west of the Quarry site, ESA collected bicycle volume data via videotape on Roblar Road at the same location (0.65 miles west of Canfield Road) and during the same time period (May 11-17, 2017) as the 24-hour traffic count data. The results of the data collection indicate typical bicycle traffic of 6 to 17 bicyclists per day, with the exception of a large bicycle group outing that was observed on Tuesday, May 16, when 227 bicyclists traveled eastbound between 10:30 a.m. and 1:30 p.m. (none westbound). Of note, the average of 76 bicyclists per hour over the three-hour period associated with this large bicycle group outing exceeded the average of 56 motor vehicles traveling eastbound during the same three hours.

Regulatory Setting

The principal changes in transportation and traffic regulations that have occurred since certification of the Final EIR are associated with updates to Sonoma County documents (see below). Applicable State (Caltrans) regulations related to traffic and transportation issues have not changed since certification of the Final EIR. However, in 2013 the Legislature passed AB 1371 (Vehicle Code section 21760, "the Three Feet For Safety Act"), which became effective September 16, 2014. The Three Feet For Safety Act generally provides that "A driver of a motor vehicle shall not overtake or pass a bicycle proceeding in the same direction on a highway at a distance of less than three feet between any part of the motor vehicle and any part of the bicycle or its operator." If the driver cannot comply with this requirement due to traffic or roadway conditions, the driver must slow and pass only when it is safe to do so.

The Complete Streets Act of 2008 (AB 1358) requires local agencies to "plan for a balanced, multimodal transportation network that meets the needs of all users of the streets, roads, and highways for safe and convenient travel," including for bicyclists. Sonoma County policies and regulations regarding the design, use, and obstruction of roadways are detailed in the Sonoma County General Plan Circulation and Transit Element, which was amended in August 2016 (Sonoma County, 2016). The majority of these goals and policy guidelines in the Circulation and Transit Element pertain to the development and planning of roadways and transit systems, and have not changed since certification of the Final EIR. For example, pursuant to Objective CT-4.2, the County level of service standard remains the same, i.e., to maintain LOS D or better at County intersections. Policy CT-3a requires that the adopted Sonoma County Bicycle and Pedestrian Plan (Bikeways Plan) shall be used as the detailed planning document for existing and proposed bikeways; Policy CT-3b requires that the policies of the Bikeways Plan shall be used during review of development projects; Policy CT-3c states that the Sonoma County Bicycle and Pedestrian Advisory Committee (SCBPAC) shall be responsible for providing advice on the ongoing planning and coordination of the County's bicycle transportation network; and Policies CT-3k and CT-3l require that in addition to the general standards found in Caltrans' *Highway Design Manual* and *Manual on Uniform Traffic Control Devices* (Caltrans, 2016) and the American Association of State Highway and Transportation Officials' (AASHTO) *Guide for the Development of Bicycle Facilities* (AASHTO, 2012), standards found in the most-recently adopted Bikeways Plan (Sonoma County, 2010) shall be used for selection, design, construction, and maintenance of Class I, II, and III bikeways. For example, Policy 2.08 of the 2010 Bikeways Plan establishes that the minimum width of a Class II bike lane is 5 feet as measured from the edge of the maintained paved surface to the motor vehicle traveled way. In addition, Policy CT-3t requires that bikeway improvements be included as part of all road maintenance or improvement projects along road segments with existing or proposed bikeways to the maximum extent feasible.

The *Comprehensive Transportation Plan: Moving Forward 2040* for Sonoma County provides further guidance for transportation planning and associated goals and policies (SCTA, 2016). This plan focuses on the design and implementation of improvements to the County's circulation system, including roadways, bikeways, and rail service. As they pertain to the area around the Quarry, the County's transportation plans have not changed since certification of the Final EIR.

3.4.3 Environmental Impacts and Mitigation Measures

Significance Thresholds

Since certification of the Final EIR, Appendix G of the CEQA *Guidelines* has been revised to remove parking as an environmental impact under CEQA, and to modify the focus of impacts related to project-generated traffic from whether a project would "cause an increase in traffic which is substantial in relation to existing traffic load and capacity of the street system" to "conflict with applicable plan, ordinance, policy, or program establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation." However, for purposes of the analysis presented herein, there has been no substantive change to Appendix G.

Sonoma County Significance Criteria

Since certification of the Final EIR, the County significance criteria applicable to judging the transportation impacts in this supplemental environmental review have not changed.

Impacts and Mitigation Measures

This section analyzes the impacts of the proposed modifications to the Use Permit Conditions of Approval and Mitigation Measures for the approved Quarry project (Modified Alternative 2) described in Chapter 2, Project Description, consistent with the impact assessment thresholds and approach used in the Final EIR, Section IV.E, Transportation and Traffic, to determine whether the proposed modifications, or changes to the setting in which the Quarry project will take place, could result in a new significant impact, or in a substantial increase in the severity of a previously-identified significant impact.

None of the proposed changes to Conditions/Mitigation Measures would affect operations of the approved Quarry, and as such, project trip generation (daily and peak-hour) and trip distribution would be the same as described in the Final EIR, as would the significance of impacts identified in the Final EIR. There would be no change to the Final EIR's required mitigation measures for Impact E.5 (Quarry site access road), Impact E.6 (roadway wear), and Impact E.7 (project construction), and those impact topics are not discussed further herein. The focus of the analysis below is on determining if the proposed changes to Condition/Mitigation Measure 44 (Design for Signalization of the Stony Point Road/Roblar Road Intersection) and Condition/Mitigation Measure 49 and Condition 59 (Reconstruction and Widening of Roblar Road) could result in a new or substantially more severe significant impact than those identified in the Final EIR. The discussion focuses on the relevant impacts and associated mitigation measures from the Final EIR, and whether the proposed modifications to the Use Permit Conditions of Approval and Mitigation Measures would affect the significance conclusions from the Final EIR. The analysis accounts for new traffic counts conducted in May 2017 on Roblar Road west of Canfield Road, and at the Stony Point Road / Roblar Road intersection, updating the 2005 traffic counts used for the Final EIR.

Impact 3.4-1: The proposed modifications to the Stony Point Road and Roblar Road intersection could affect near-term cumulative plus project levels of service during the weekday a.m. and p.m. peak-hours, and Saturday peak hour. (*No New or Substantially More Severe Significant Impact, After Mitigation*)

Final EIR Impact E.1 found that the intersection of Stony Point Road and Roblar Road would continue to operate at unacceptable LOS F during the near-term cumulative plus project weekday a.m. and p.m. peak hours with operation of the Quarry, and that Quarry truck traffic would add more than five seconds of delay, which would be a significant impact. In addition, this intersection would degrade to an unacceptable LOS E in the Saturday midday peak, which would also be a significant impact. The Final EIR identified Mitigation Measure E.1 to signalize this side-street stop-controlled intersection. Implementation of Mitigation Measure E.1, which was adopted as Condition/Mitigation Measure 44, would reduce the identified intersection impact to a less-than-significant level. As stated above, none of the proposed changes to Conditions/Mitigation Measures would affect operations of the approved Quarry, nor would they affect the trip generation/distribution of the approved Quarry; as such, there would be no new significant impacts at study intersections, and previously identified significant impacts would not be substantially more severe.

The Applicant has proposed to revise Condition/Mitigation Measure 44 to require a new signalization design for the intersection of Stony Point Road and Roblar Road, to reduce potential impacts to biotic resources in the roadside drainage ditches and other unpaved surfaces. The key differences between the County's preliminary design as set forth in Condition/Mitigation Measure 44 and the Applicant's proposed design relate to shoulder widths, the northbound left turn lane stacking distance, and maintaining the alignment of the existing driveway on the east side of Stony Point Road. The Applicant proposes a width of paved shoulders on Stony Point Road of a minimum of four feet (maintaining the existing width, although not providing the County's five-foot standard for a Class II bike lane, except on the northwest leg of the intersection, which includes a five-foot bike lane) compared to eight to ten feet for the County's preliminary design. The width of shoulders would not affect the intersection LOS (see Impact 3.4-2, below, for discussion of potential bicycle safety impacts).

The County's preliminary design would have relocated the east-side private driveway to the north (opposite Roblar Road), to align with the intersection, whereas the Applicant proposes not to relocate the driveway (i.e., to maintain the existing condition). In order to determine if the Applicant's proposal not to relocate the driveway is an issue, the current driveway location was evaluated by the Department of Transportation and Public Works (DTPW) against AASHTO turning templates. The newly-installed traffic signals would accommodate movements to and from the private driveway, and the location of the stop line for northbound traffic would not cause vehicles to block access for the driveway. However, the proximity of the stop line to the driveway could make it difficult (potentially unsafe) to turn left out of the driveway and around/past vehicles stopped in the northbound left-turn lane. Passenger cars and light trucks could execute a left-turn onto southbound Stony Point Road without clipping the front of the queued vehicles or running off the westerly edge of pavement, but larger vehicles or vehicles towing a trailer would need to complete the turning movement on the westerly shoulder. For that reason, not relocating the private driveway to the north would introduce a new significant impact.

No previously-identified significant impact to LOS would increase in severity as a result of the proposed design change. The lane widths would be the same for both the County's and Applicant's design, as would the stacking length of the new southbound left-turn lane. For the northbound left-turn lane, the Applicant proposes a combined deceleration and storage length of approximately 225 feet, which is less than the 385 feet in the County's preliminary design but still accommodates the 95th Percentile (Design) queue length of 81 feet. Of note, the 50th Percentile (Average) queue length would be 45 feet.

The intersection levels of service would be an acceptable LOS B or better with the Applicant's proposed signalization design, the same as the County's preliminary design specified in Condition/Mitigation Measure 44. With the implementation of revised Condition/Mitigation Measure 44 (Mitigation Measure 3.4-1, below), no new impacts related to traffic LOS would occur, and no previously-identified significant impact would increase in severity.

> **Mitigation Measure 3.4-1:** Prior to the commencement of mining, the applicant shall enter into an improvement and reimbursement agreement with the DTPW and install a signal at the Stony Point Road/Roblar Road intersection. The applicant shall have plans prepared for the work in conformance with the Applicant's preliminary design plans, including widening all approaches to the intersection, lengthening the northbound left-turn lane, and adding a southbound left-turn lane (for access to the private driveway across from Roblar Road). The applicant shall widen or relocate to the north the private driveway opposite Roblar Road, within the County right-of-way, or revise the plans to show a relocation of the stop line for the northbound left-turn lane, to provide sufficient turning radius for larger vehicles and vehicles with trailers. The signal shall be designed in accordance with Caltrans guidelines, subject to review and approval by DTPW. An offset of the payment of traffic mitigation fees may be considered.
>
> **Significance after Mitigation:** Mitigation Measure 3.4-1 would ensure installation of the traffic signal required by the EIR, with an acceptable LOS B or better. Mitigation Measure 3.4-1 would also ensure safe turning movements from the private driveway opposite Roblar Road. Therefore, with implementation of Mitigation Measure 3.4-1, impacts would be less than significant.

Impact 3.4-2: The proposed modifications to the intersection could introduce potential bicycle safety hazards on Stony Point Road at Roblar Road. (*No New or Substantially More Severe Significant Impact, After Mitigation*)

The existing Stony Point Road configuration consists of two 12-foot-wide travel lanes, with 4-foot-wide shoulders. The County's preliminary design plans for the Stony Point Road/Roblar Road intersection, referenced in Condition/Mitigation Measure 44 and the subject of an Initial Study/Mitigated Negative Declaration (IS/MND; Sonoma County PRMD, 2005), indicated that the shoulders at the intersection would be widened to eight to ten feet on Stony Point Road. The Final EIR included, as mitigation for project impacts on intersection operation, the implementation of the County's preliminary intersection design, including the eight- to ten-foot-wide shoulders. This design would have met the County five-foot standard for Class II bike lanes.

The Applicant proposes a narrower width of paved shoulders on Stony Point Road than the approved County design. The applicant specifically proposes a minimum of four feet, which would maintain the existing width, but would not provide the County's five-foot standard for a Class II bike lane. Compared to the previously-approved Quarry project, the Applicant's proposed design would result in a new significant impact related to bicycle safety because of the failure to meet General Plan policy and the 2010 Bicycle and Pedestrian Plan calling for five foot shoulders to meet Class II bikeway safety standards.[1] However, the applicant seeks to avoid disturbing ditches that could be California Tiger Salamander habitat, and it is the opinion of the County's DTPW engineers that minor deviations in these safety standards at this intersection will not create significant impacts.

> **Mitigation Measure 3.4-2:** Widen the paved shoulders on Stony Point Road to a minimum of five feet within the limits of the intersection improvement at Roblar Road unless such widening would disturb ditches.
>
> **Significance after Mitigation:** Mitigation Measure 3.4-2 would reduce the new significant bicycle safety impact to less than significant because the shoulder widths would conform with the Sonoma County General Plan policy and 2010 Bicycle and Pedestrian Plan, with possible minor deviations, regarding required width of paved shoulders.

Impact 3.4-3: The proposed substantial increase in truck traffic on Roblar Road, which does not fully meet current roadway design standards, including class II bikeway standards, could introduce potential bicycle safety hazards. (*Substantially More Severe Significant Impact*)

As described in the prior Final EIR and in Chapter 2, Project Description, Roblar Road currently does not meet current County road design standards for travel lane and/or shoulder width. Specifically, Roblar Road west of Canfield Road is constructed with approximately 10-foot-wide travel lanes (with some sections containing lanes as narrow as 8.5 to 9 feet wide), less than the current County roadway standard of 11 to 12 feet, depending on daily traffic volume and travel speed. Further, Roblar Road contains either no paved shoulders, or shoulder widths less than the current County standard of six feet (five-foot paved shoulder width for a Class II bike lane).

As described in Final EIR Impact E.3, the Quarry would cause an increase in truck traffic on Roblar Road (i.e., an average of about 27 one-way trips per hour [about 302 per day], and a peak of about 43 one-way trips per hour [about 480 per day]), and could increase the risk of accidents due to potential conflicts between Quarry traffic and bicyclists, pedestrians, and other vehicles. In addition, Quarry haul trucks could lose gravel from their trailers, which could end up on roadways, shoulders and in bike lanes, potentially creating a hazard for bicyclists. The weeklong bicycle count conducted in May 2017 (updating the 2005 count used for the Final EIR) indicated

[1] General Plan Policy CT-3n(2) states that the following criterion shall be used to determine consistency of public and private projects with the Bikeways Plan: construction, widening, or maintenance of roads with designated bikeways meets the design and maintenance standards for the appropriate class of bikeway as specified by the Bikeways Plan. In addition, Policy CT-3t requires that bikeway improvements be included as part of all road maintenance or improvement projects along road segments with existing or proposed bikeways to the maximum extent feasible.

that the bicycle volumes on Roblar Road west of the Quarry site are generally 6 to 17 bicyclists per day, with the exception of Tuesday, May 16, when 227 bicyclists traveled eastbound between 10:30 a.m. and 1:30 p.m. (none westbound).

In analyzing the prior project proposal, the original Final EIR found that Impact E.3 would be significant and unavoidable because the applicant could not acquire land necessary to widen Roblar Road from Stony Point Road to Valley Ford Road (seven miles) in order for the road to meet current safety standards. However, the Board of Supervisors did not approve the prior proposal, and instead approved Modified Alternative 2. Under Modified Alternative 2, all quarry sales would contractually dictate the haul route, such that Roblar Road east of the quarry would not be utilized by truck traffic. With respect to Roblar Road to the west under the approved alternative, the applicant had asserted that he could obtain sufficient right of way to widen the 1.6 mile segment of Roblar Road and that condemnation would not be required. Based on that assumption, which has turned out to be incorrect, the Board of Supervisors originally found Modified Alternative 2 to be feasible without the significance finding and override with respect to Impact E.3 that otherwise would have been required. Thus, with the original approval, implementation of Mitigation Measure E.3a (which was the basis for Conditions/Mitigation Measures 49 and 59) would improve Roblar Road to provide two 12-foot-wide vehicle travel lanes, two six-foot-wide paved shoulders, two two-foot-wide unpaved (rock) shoulders, and associated striping/signage to meet Class II bike facility standards.

The Applicant is seeking to alter these previously approved conditions. The Applicant has proposed a new preliminary road design for a 1.6-mile reach of Roblar Road between the Quarry site entrance and Private Access Road 2. While the Applicant has stated an intent to go forward with the prior proposal if required, the Applicant indicates that implementation of the previously approved design is not feasible without condemnation due to the inability to secure the necessary right-of-way from private property owners. The Applicant has also raised new design concerns about the immediate proximity of Americano Creek. The applicant indicates he has had appraisals done and has submitted evidence that he has made written offers to land owners at what the Applicant claims is above market value. Thus far, the Applicant reports that neighbors have not agreed to the sale of any of the land needed to accommodate road widening and at least one neighbor is waiting to see the outcome of the proposed Use Permit modification before entering into any negotiations. The applicant also has suggested that it is impractical and unnecessary to construct the full width roadway improvement, although the Applicant's technical comments are not based on County standards or the applicable traffic counts and projected traffic for the road.

The key differences between Conditions/Mitigation Measures 49 and 59 and the Applicant's proposed design relate to travel lane width and shoulder width on the affected segment of Roblar Road. The Applicant's proposed design differs from that described in the previously approved Conditions as follows:[2]

[2] In its application submittal, the Applicant identified other possible road configurations that would fit in the same overall 32-foot width, but with different combinations of widths for travel lanes, paved shoulders, and rocked shoulder backing. For purposes of this analysis, the Applicant's proposal consists of 11-foot travel lanes, 3-foot paved shoulders, and 2-foot rocked shoulder backing (see Figure 2-6 in Chapter 2, Project Description).

- reduce width of the two vehicle travel lanes from 12 feet to 11 feet; and
- reduce width of paved shoulders from 6 feet to 3 feet.

The width of shoulder backing (rock) at the edge of pavement would remain at 2 feet, except on a 0.6-mile segment with a one-foot-wide unpaved (rock) shoulder. The total paved width would be reduced from 36 to 28 feet, widening to 38 feet to provide a 10-foot-wide left turn lane at the intersection of Roblar Road and Access Road 2. As noted above, the Applicant has stated that he is prepared to move forward with the original approval if necessary, although as noted this would require condemnation not originally contemplated.

The Sonoma County General Plan Circulation and Transit Element Policy CT-4e states that the AASHTO publication, *A Policy on Geometric Design of Highways and Streets* (known as the "AASHTO Green Book;" AASHTO, 2011) will be used to guide design standards for County roads. Policy CT-4e also states that where the AASHTO guidelines conflict with other certain considerations (e.g., with rural or community character), flexibility provisions in the AASHTO guidelines are to be used to avoid those conflicts while addressing traffic flow and safety. The Draft EIR for the Sonoma County General Plan at page 4.2-50 states that while the AASHTO guidelines allow for flexibility, they provide for public safety in all cases. The Draft EIR similarly states that the primary overriding factor in all of these design issues is public safety. The Final EIR concluded that Mitigation Measure E.3a would reduce the identified bicycle safety hazard impacts to a less-than-significant level. Implementation of Mitigation Measures E.3b and E.3c (adopted as Conditions/Mitigation Measures 87 and 154) would reduce impacts associated with spillage of material onto haul routes to a less-than-significant level.

The Applicant's proposed alternative road design would not conform to guidance in the latest edition of the AASHTO publication, *A Policy on Geometric Design of Highways and Streets* (Green Book), which the County General Plan uses as the basis for design standards for County roads, as discussed above. *A Policy on Geometric Design of Highways and Street* does provide for exceptions to the 40-foot roadway cross-section as required in the EIR. The exceptions are:

1. On roadways to be reconstructed, an existing 22-foot traveled way may be retained where alignment and safety records are satisfactory.
2. Shoulder width may be reduced for design speeds greater than 30 mph as long as a minimum roadway width of 30 feet is maintained.

With regard to the collision history for Roblar Road between Valley Ford Road and Stony Point Road, for the period between 2011 and 2015 the collision rate was 0.64 collisions per million vehicle miles travelled (MVMT). The rate is lower than the collision rate for Sonoma County (1.23 collisions per MVMT), Caltrans District 4 (1.09 collisions per MVMT), and Caltrans Statewide (1.01 collisions per MVMT) for two-lane rural roadways. This would indicate that a 22-foot travelled way could be used on Roblar Road.

To maintain a minimum roadway section necessary to accommodate a bike lane using a 22-foot travelled way the shoulders would need to be 5 feet. Within the 5-foot shoulder area 4 feet would need to be paved to accommodate a minimum acceptable bike lane width. Thus, although not the

AASHTO recommendation, and not the guideline in Policy 2.08 of the Sonoma County Bicycle and Pedestrian Plan, the minimum acceptable roadway cross-section for Roblar Road would be two 11-foot travel lanes, two 4-foot bike lanes, and two 1-foot unpaved road backing areas, for a total 32-foot cross-section. This cross-section has been reviewed by the SCBPAC and was found to be the minimum acceptable cross-section for Roblar Road. The DTPW Director and Traffic Engineer have concurred with this recommendation (Clark, 2018).

The 32-foot roadway section does not include widening needed to accommodate drainage facilities alongside the roadway. To accommodate drainage facilities and provide drivers that run off the roadway an area to recover, *A Policy on Geometric Design of Highways and Street* calls for a slope of 1-foot vertical to 4 feet horizontal as the standard with slopes of 1-foot vertical to 3 feet horizontal as acceptable.

There are four horizontal curves on Roblar Road where additional pavement may be needed to accommodate vehicle offtracking (trucks tracking outside the travel lane). *A Policy on Geometric Design of Highways and Streets* provides methodology for determining the required widening to accommodate a gravel truck through the horizontal curves while maintaining an acceptable clearance to bicycles and vehicles in the opposing lane. The compliance of the more detailed design of the road will need to be verified for compliance with this policy.

Lastly, the AASHTO Green Book states that auxiliary lanes (e.g., left turn lanes) should be as wide as the through travel lanes, but not less than 10 feet. The proposed 10-foot-wide left turn lane to Access Road 2 would be less than the width of the travel lanes, and therefore would not meet the County road design standard (i.e., it would be inconsistent with General Plan policy).

The revised project's failure to meet County roadway design guidelines with respect to width of travel lanes, shoulders, side slopes, horizontal curvature, and turn lane widths, and the proposal's non-compliance with adopted policies and guidelines to facilitate safety and multi-modal transportation, would result in a significant impact.[3] The relatively large number of trucks on this road requires mitigation. These impacts can be addressed by the following mitigation measure.

> **Mitigation Measure 3.4-3:** The Applicant shall widen Roblar Road on the 1.6-mile segment between the Quarry site entrance and Access Road 2 with two 11-foot-wide vehicle travel lanes, and an 11-foot west-bound left turn lane at Access Road 2, two 5-foot-wide shoulders (4-foot-wide paved), and appropriate side slope for the entire road design, as determined by the DTPW. The Applicant shall widen Roblar Road with at least the following cross section dimensions:
>
> - 11-foot-wide vehicle travel lanes and 11-foot-wide left turn lane;

[3] The Applicant has pointed to the County's 2013 approval and conditioning of the Mark West Quarry Expansion Project as a model for environmental review and mitigation. That project approved a 33-acre expansion of an existing quarry located at 4411 Porter Creek Road, Santa Rosa. Resolution No. 13-0512 noted that the project would add substantial truck traffic to the Mark West Springs–Porter Creek Road primary haul road, which is designated a proposed Class II bikeway and does not meet current County roadway design standards. The resolution found that requiring the applicant to pay its fair share to improve haul roads to meet County standards would cost more than $8 million, effectively rendering the project infeasible. The resolution therefore imposed a condition, mitigating the severity of traffic, bicycle, and pedestrian safety impacts to the extent feasible. The condition required extensive road improvements of that applicant, and that project also required a CEQA override of significant impacts for approval.

- 4-foot-wide paved shoulders;
- 1-foot-wide unpaved (rock) shoulders.

Final design of the horizontal curves shall meet *A Policy on Geometric Design of Highways and Streets*, as determined by the DTPW, to accommodate all project trucks (including but not limited to trucks hauling gravel) through the curves to prevent offtracking within the pavement in the 1.6 mile segment, while maintaining an acceptable clearance to bicycles and vehicles in the opposing lane. If any component of an adequate design requires additional right of way, and if the applicant is unable to obtain this additional right of way from willing sellers, then any condemnation required must be paid for solely by the applicant.

Significance after Mitigation: The above-identified mitigation measure would ensure implementation of an 11-foot west-bound left turn lane at Access Road 2. It would also ensure 4-foot-wide bicycle lanes together with 1-foot unpaved shoulders along the improved segment, consistent with the SCBPAC recommendation. The DTPW as well as the SCBPAC have reviewed the proposed project and determined that, as mitigated, it would be adequate for bicycle and traffic safety. The DTPW determined that 11-foot-wide travel lanes would safely handle Quarry trucks because this segment of Roblar Road would be improved with paved shoulders at least 4 feet in width. Nevertheless, the proposed travel lanes would not meet the general AASHTO 12-foot lane recommendation, and the proposed bicycle lanes would not meet the general specifications of the Sonoma County Bicycle and Pedestrian Plan, which would provide additional protections that include a 5-foot paved lane (Policy 2.08). As a result, the impact would remain significant.

Impact 3.4-4: The proposed substantial increase in truck traffic on Roblar Road, which does not fully meet current roadway design standards and/or has limited sight distance, could introduce potential traffic safety hazards. (*Substantially More Severe Significant Impact)*

As described in the Final EIR Impact E.4, the Quarry would have a significant traffic safety impact due to the existing narrow width and sight distance restrictions on Roblar Road. Mitigation Measures E.4a-c (implement Roblar Road widening as specified in Mitigation Measure E.3a; and post [advisory reduced-speed] warning signs at locations with limited sight distance and in proximity to the Quarry access road as specified in Mitigation Measure E.3b) would reduce the identified traffic safety hazard impact to a less-than-significant level. These measures were adopted as Conditions/Mitigation Measures 49, 59, 50, and 51. The above-described assessment of the Applicant's proposed road design for Roblar Road between the Quarry access road and Access Road 2 (Impact 3.4-3) is also germane to this Impact 3.4-4. It is noted that the straightening of the "S" curve on Roblar Road about one-mile south of the Quarry driveway would not occur under the applicant's proposed modifications, though the segment with the "S" curve would also be widened as described above (see Mitigation Measure 3.4-3), and would have advisory reduced-speed warning signs posted. In summary, the proposed road design would not meet County roadway design guidelines regarding the width of travel lanes, shoulders, side slopes, and turn lanes, and the failure to meet County roadway design guidelines would

cause a new significant impact related to potential safety hazards. This impact may be addressed by the following mitigation measure.

> **Mitigation Measure 3.4-4:** Implement roadway improvements for Roblar Road identified in Mitigation Measure 3.4-3.
>
> **Significance after Mitigation:** The above-identified mitigation measure would ensure implementation of an 11-foot west-bound left turn lane at Access Road 2. It would also ensure 4-foot-wide bicycle lanes with 1-foot unpaved shoulders along the improved segment, consistent with the SCBPAC recommendation. The DTPW has determined the proposed project would not be unsafe with respect to traffic safety impacts. Nevertheless, the proposed travel lanes would not meet the general AASHTO 12-foot lane recommendation, and the proposed bicycle lanes would not meet the general specifications of the Sonoma County Bicycle and Pedestrian Plan, which would provide additional protections that include a 5-foot paved lane (Policy 2.08). As a result, the impact would remain significant.

Cumulative Impacts

Impact 3.4-5: The proposed modifications to the Stony Point Road and Roblar Road intersection, to eliminate a southbound right-turn lane that is part of the original project approval, could affect long-term level of service conditions during the weekday a.m. and p.m. peak hours, and Saturday peak hour. (*No New or Substantially More Severe Significant Impact, After Mitigation)*

As stated above, none of the proposed modifications to the Use Permit would affect operations of the approved Quarry, and as such, project trip generation (daily and peak-hour) and trip distribution would be the same as described in the Final EIR, as would the significance of impacts identified in the Final EIR. The Final EIR found that under Long-Term Cumulative conditions, the intersection of Stony Point Road and Roblar Road would continue to operate at unacceptable LOS F or worse during the weekday a.m. and p.m. peak hours, and that the Quarry project would increase delays by more than five seconds. This exceedance of the threshold for delay was identified in the Final EIR as a significant impact. As stated above, none of the proposed modifications to the Use Permit would affect the trip generation or trip distribution of the approved Quarry, and as such, there would be no new or more-severe, cumulative LOS impacts at study intersections. In addition, the proposed intersection design contains sufficient deceleration and storage length for both the project-level and cumulative scenarios.

The Final EIR specified Mitigation Measure E.2a (to provide a dedicated right-turn lane on the southbound approach at the intersection of Stony Point Road and Roblar Road in addition to signalization and provision of left-turn lanes identified in Mitigation Measure E.1). Implementation of Mitigation Measure E.2a would reduce the identified intersection impact to a less-than-significant level. However, as described in the Final EIR, the Applicant would need to acquire land from private landowners along Stony Point Road to provide sufficient right-of-way width to implement the identified roadway widening improvements, and because of that need, the

implementation of Mitigation Measure E.2a may not be feasible. Therefore, the Final EIR concluded that the intersection impact would be Significant and Unavoidable. Condition/Mitigation Measure 45 required a dedicated southbound right-turn lane only if feasible.

The Applicant's proposed signalization design for the intersection of Stony Point Road and Roblar Road does not include a southbound right-turn lane for the above-stated reason. That is, there is insufficient paved surface to accommodate the new lane, and obtaining additional right-of-way may not be feasible. Implementation of the Applicant's proposed intersection design would therefore result in the same significant long-term cumulative impact identified in the Final EIR (Impact E.2).

Since certification of the EIR, however, a new mitigation measure has come to light that has the ability to reduce this impact to less than significant.

> **Mitigation Measure 3.4-5:** Optimize the traffic signal timing at the intersection of Stony Point Road and Roblar Road to reflect projected future turning movement traffic volumes.
>
> **Significance after Mitigation:** Mitigation Measure 3.4-5 would reduce the increase in intersection delay associated with Long-Term Cumulative conditions for the intersection of Stony Point Road and Roblar Road to less than the five-second threshold of significance. Therefore, with implementation of Mitigation Measure 3.4-5, which the Applicant has agreed to adopt, Impact E.2, identified in the Final EIR as significant and unavoidable for this intersection, would be less than significant.

3.4.4 References

AASHTO (American Association of State Highway and Transportation Officials), 2011. *A Policy on Geometric Design of Highways and Streets*. 2011.

AASHTO, 2012. *Guide for the Development of Bicycle Facilities*. Fourth Edition, 2012.

Caltrans (California Department of Transportation), 2017. *2014 Collision Data on California State Highways*.http://www.dot.ca.gov/hq/tsip/data_library/tasas/2014CollisionDataonCaliforniaStateHighway.pdf.

Caltrans, 2016. *Highway Design Manual*. http://www.dot.ca.gov/design/manuals/hdm.html.

Caltrans, 2015. *California Manual on Uniform Traffic Control Devices*. http://www.dot.ca.gov/trafficops/camutcd/.

CHS Consulting Group, 2016. Technical Memorandum to BKF Engineers, May 11, 2016.

Clark, Jeff, 2018. *Memo to Blake Hillegas, Permit Sonoma, from Jeff Clark, Traffic Engineer, DTPW, re: Roblar Road Quarry*. August 28, 2018.

Sonoma County PRMD, 2005. *Mitigated Negative Declaration / Initial Study and Mitigation Monitoring Program: Signalization of Stony Point Road t Roblar Road.* Prepared for Sonoma County Department of Transportation and Public Works. October, 2005.

Sonoma County, 2010. *Sonoma County Bicycle and Pedestrian Plan*, August 24, 2010.

Sonoma County, 2016. *Sonoma County Year 2020 General Plan*, 1990, last amended August 2016.

SCTA (Sonoma County Transportation Authority), 2016. *Comprehensive Transportation Plan: Moving Forward 2040*. September 2016.

Transportation Research Board, 2000. *2000 Highway Capacity Manual*. 2000.

This page intentionally left blank

3.5 Hazardous Materials

3.5.1 Introduction

This section describes the potential public health and environmental issues related to transportation, storage, use or accidental release of hazardous materials associated with the proposed modifications to the Use Permit Conditions of Approval (COA) and analyzes whether any new or substantially more severe significant impacts would results from changes in the project or its circumstances, or new information that was not known and could not have been known through the exercise of reasonable diligence at the time of certification of the Final Environmental Impact Report (Final EIR). The environmental setting presented in this chapter updates the hazardous materials background and current site conditions presented in Section IV.H, Hazardous Materials, of the Final EIR. The Regulatory Framework presented below focuses on the laws that have changed since December 2010 and that are pertinent to the proposed modifications to the Use Permit. The environmental impact significance criteria include thresholds for hazards and hazardous materials and are the same as those considered in the Final EIR.

3.5.2 Setting

Environmental Setting

The environmental setting for hazards and hazardous materials presented in Final EIR Section IV.H, is adequate for evaluating the environmental baseline conditions for the proposed modifications to Use Permit. Section IV.H focused on potential hazardous materials concerns on the approved Roblar Road Quarry site, while Impact E.8 in the Final EIR provided environmental setting information and analyzed hazardous materials issues associated with widening of Roblar Road. Modifications to the signalization at the Stony Point Road/Roblar Road intersection were addressed in the Initial Study/Mitigated Declaration (IS/MND) prepared by Sonoma County PRMD in 2005 (Sonoma County PRMD, 2005) which includes setting information for the area of the intersection. The setting information presented in the IS/MND remains applicable to this analysis.

Regulatory Setting

The regulatory setting for hazardous materials presented in the Final EIR (Section IV.H) provided definitions for hazardous materials/waste and described the hazardous materials management framework. The Regulatory Setting in the Final EIR remains relevant for the analysis of the proposed Use Permit modifications, including the signalization changes at Stony Point /Roblar Road.

3.5.3 Environmental Impacts and Mitigation Measures

Significance Thresholds

The following impact analysis considers whether the proposed modifications to the Use Permit, or changes to the setting in which the Quarry project would take place, would result in new or substantially more severe significant impacts than identified in the Final EIR, with respect to the following:

- Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- Result in a safety hazard for people residing or working in the project area. Includes projects located within the vicinity of a private airstrip, 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).
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impacts and Mitigation Measures

Using the Significance Thresholds above, this section discusses the potential for the proposed modifications to the Use Permit to result in a new or substantially more severe significant impact from hazardous materials when compared to the project as approved.

Based on the characteristics of the proposed modifications to the Use Permit and the Project location, several of the criteria above were found to have no potential impact. The physical locations of the proposed modifications are not listed as hazardous materials sites pursuant to Government Code Section 65962.5. This includes the approved Roblar Road Quarry, the sections of the Roblar Road between the approved Quarry site and Access Road 2, and the intersection of Stony Point Road/Roblar Road. Furthermore, the proposed modifications to the Use Permit would not be within the vicinity of a private airstrip or public airport or within one-quarter mile of an existing or proposed school. Given the focused scope of the proposed modifications to the Use Permit, the changes that would occur would not be substantial enough to hinder the implementation of an adopted emergency response plan or emergency evacuation plan.

Impacts

Impact 3.5.1: Hazardous materials (e.g., petroleum products) transported to and used on construction sites associated with the proposed modifications to the Use Permit could be spilled or otherwise released through improper handling or storage. (*No New or Substantially More Severe Significant Impact*)

Construction activities required for the proposed changes to the Stony Point Road/Roblar Road intersection design (modifications to Condition/Mitigation Measure 44), the widening of Roblar Road between the approved Quarry entrance and Access Road 2 (modifications to Condition/Mitigation Measure 49 and Condition 59), and the relocation of Americano Creek (Modifications to Condition 101 and Condition/Mitigation Measure 133) could involve the temporary, short-term use, transport, or generation of certain hazardous substances. These may include petroleum for fueling construction equipment, paints and solvents, silica dust from concrete, or lubricating oils and hydraulic fuels. Inadvertent upset, spillage, or improper handling leading to the release of these substances, could result in localized adverse impacts to construction workers, surface soil, surface water, and/or groundwater, and would be considered a significant impact.

The IS/MND prepared for the signalization of the Stony Point Road/Roblar Road intersection concluded that the potential impact of transportation, use, and possible release of hazardous materials was less than significant after implementation of Mitigation Measure (MM) 8.1 (Sonoma County PRMD, 2005). This measure required that storage of flammable liquids comply with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification and required that any release be reported and contained from entering surface water sources. The Final EIR (Impacts H.1 and E.8) concluded that transportation and use of hazardous materials for construction would be less than significant following the implementation of identified mitigation measures. This would include operations at the approved Roblar Road Quarry site and the proposed widening of Roblar Road. The mitigation measures prescribed in the Final EIR were adopted as operational conditions Condition/Mitigation Measure 14 (MM H.1a)[1], Condition/Mitigation Measure 37 (MM-H.1b)[2], Condition/Mitigation Measure 38 (MM-H.1c)[3], Condition/Mitigation Measure 39 (MM-H.1d)[4], and Condition/Mitigation Measure 72 (MM-E.8c)[5]. These COA are part of the hazardous materials program and require proper management, handling, storage, and disposal of hazardous materials.

1 The applicant/operator shall prepare a Spill Prevention, Control and Counter Measure Plan (SPCCMP) in conformance with the requirements of the Code of Federal Regulations 40CFR112.

2 Comply with applicable hazardous waste generator, underground-storage tank, above ground storage tank and AB 185 (hazardous materials handling) requirements and maintain any applicable permits for these programs from the Hazardous Materials Division of Sonoma County Department of Emergency Services.

3 All hazardous waste materials shall be stored, handled and managed in accordance with the approved site plan and hazardous materials management plan so as to reduce the potential for any spillage.

4 No soil or other material containing hazardous or toxic waste shall be imported to the quarry.

5 Prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) before commencing with roadway widening construction. The SWPPP shall specify Best Management Practices (BMPs) to control contamination of surface flows through measures to prevent the potential discharge of pollutants, including hazardous materials, from the construction area.

The COA adopted for the Final EIR would still apply and would be sufficient to reduce impacts associated with the transportation, improper use, release, and storage of hazardous materials associated with the proposed modifications to the Use Permit. The use of hazardous materials would not represent a significant impact of the proposed modifications and would not result in a new or substantially more severe significant impact.

Cumulative Impacts

With implementation of existing Conditions/Mitigation Measures, the proposed modifications to the Use Permit would not result in a new or substantially more severe impact associated with hazardous materials. Sonoma County PRMD has not identified cumulative projects within the geographic scope of the Stony Point Road/Roblar Road intersection, the area encompassing the Roblar Road widening, nor the Americano Creek relocation site. Consequently, implementation of the proposed modifications to the Use Permit would not contribute to a new or substantially more severe significant cumulative impact.

3.5.4 References

Sonoma County PRMD, 2005. *Mitigated Negative Declaration / Initial Study and Mitigation Monitoring Program: Signalization of Stony Point Road at Roblar Road.* Prepared for Sonoma County Department of Transportation & Public Works. October, 2005.

3.6 Cultural Resources

3.6.1 Introduction

This section analyzes changes to the environmental and regulatory setting for the proposed modifications to the Use Permit Conditions of Approval (COA) as they pertain to cultural resources and paleontological resources, and analyzes whether a new or substantially more severe significant impact would result from changes in the project or its circumstances, or new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Final Environmental Impact Report (Final EIR) was certified. Due to the different methods involved in paleontological and cultural resources analyses, these issue areas are discussed separately. For the purposes of this analysis, the terms *cultural resource* and *paleontological resource* are defined as follows:

- **Cultural resource** – prehistoric and historic sites, buildings, structures, districts, and landscapes, or other evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or other reason. These resources include the following types of CEQA-defined resources: historical resources, archaeological resources, human remains, and tribal cultural resources.
- **Paleontological resource** – fossilized evidence of past life found in the geologic record. Fossils are preserved in sedimentary rocks, which are the most abundant rock type exposed at the surface of the earth. Despite the abundance of these rocks, and the vast numbers of organisms that have lived through time, preservation of plant or animal remains as fossils can be a rare occurrence. In many cases, fossils of animals and plants occur only in limited areas and in small numbers relative to the distribution of the living organisms they represent. In particular, fossils of vertebrates–animals with backbones–are sufficiently rare to be considered nonrenewable resources.

This section examines proposed changes and implementation details since certification of the Final EIR and approval of the Quarry project by the Sonoma County Board of Supervisors. This section is based on the following technical reports, the first three of which were prepared in support of the EIR, and the last two prepared after certification of the Final EIR:

- Steen, Eileen, and Vicki R. Beard, *A Cultural Resources Survey for the Roblar Road Quarry Environmental Impact Report Sonoma County, California*, Prepared by Tom Origer & Associates, Rohnert Park, CA, Prepared for Environmental Science Associates, San Francisco, CA, December 5, 2005.
- Allen, James R., *RE: Assessment of the Paleontologic Sensitivity of the Proposed Roblar Road Quarry, Sonoma County, California*, Letter report, Prepared for Janine M. Loyd, Tom Origer & Associates, Rohnert Park, CA, May 17, 2006.
- Steen, Eileen, and Thomas M. Origer, *A Cultural Resources Survey Addendum for the Roblar Road Quarry Environmental Impact Report Sonoma County, California*, Prepared by Tom Origer & Associates, Rohnert Park, CA, Prepared for Environmental Science Associates, San Francisco, CA, March 6, 2007.

- De Shazo, Stacey, and Sally Evans, *A Historic Properties Inventory for the Roblar Road Quarry and Access Road Project, Sonoma County, California*, Prepared by Archaeological Resources Service, Prepared for North Bay Construction, December 1, 2011.
- Roop, William, *A Reevaluation of the Roblar Road Quarry and Access Road Project, Sonoma County, California*, Prepared by Archaeological Resources Service, Prepared for John Barella, June 28, 2017.

3.6.2 Setting

The setting discussion that follows focuses on changes that have occurred since the certification of the Final EIR, and does not discuss information in the Final EIR that continues to apply.

Environmental Setting

In 2011, Archaeological Resources Service (ARS) conducted a supplemental cultural resources survey and inventory for the Quarry property in which two previously unrecorded archaeological resources (ARS 10-016-01 and ARS 10-016-02) were identified, and the historic ranch complex mentioned in Steen and Origer's (2007:7) cultural resources study was recorded and evaluated for eligibility to qualify as a historical resource as defined in CEQA Guidelines Section 15064.5 (De Shazo and Evans, 2011:21-22).

Archaeological site ARS 10-016-01 is a large historic-period refuse scatter (ceramics and glass fragments) and single prehistoric isolate (obsidian flake) located outside, but adjacent to, the portion of the Quarry site where Americano Creek would be relocated and also where Roblar Road would be reconstructed/widened. The site is associated with the historic ranch complex, described below. ARS evaluated the site as not eligible for listing in the National Register of Historic Places (National Register) (De Shazo and Evans, 2011:13-14, 21); however, Roop (2017:30) explains that, given the history of the area's land use for ranching since the mid-19th century, any previously unrecorded archaeological material at the site associated with this period could be potentially significant. Therefore, unless subsurface investigations provide data that show otherwise, the site appears to qualify as a historical resource and unique archaeological resource, as defined in CEQA Guidelines Section 15064.5 and California Public Resources Code (PRC) Section 21083.2. However, as stated above, the resource is located outside, though adjacent to, the portion of the Quarry site where Americano Creek would be relocated and also where Roblar Road would be reconstructed/widened.

Another archaeological site, site ARS 10-016-02, is a prehistoric midden and lithic scatter located outside, but adjacent to, the portion of the Quarry site where Americano Creek would be relocated and also where Roblar Road would be reconstructed/widened. ARS noted artifacts in rodent burrow backdirt piles, suggesting a subsurface component to the site. Whether or not the site has a subsurface component remains unknown because no subsurface archaeological investigations have been conducted at the site. Lacking subsurface data on the site, ARS evaluated the site as potentially eligible for listing in the National Register (De Shazo and Evans, 2011:15, 21); thus, unless subsurface investigations provide data that show otherwise, the site appears to qualify as a historical resource and unique archaeological resource, as defined in CEQA Guidelines Section 15064.5 and PRC Section 21083.2. However, as stated above, the resource is

located outside, though adjacent to, the portion of the Quarry site where Americano Creek would be relocated and also where Roblar Road would be reconstructed/widened.

As noted above, Steen and Origer (2007:7) mentioned the presence of a historic ranch complex during their cultural resources survey and inventory for Alternative 2 examined in the Final EIR. However, they did not provide any detailed recordation or description, or significance evaluation in their report or in the Final EIR. In ARS's 2011 survey and inventory, the historic ranch complex was recorded in the portion of the Quarry property where Americano Creek would be relocated and also where Roblar Road would be reconstructed/widened. The historic-period component of archaeological site ARS 10-016-01 is associated with the ranch complex but is considered a separate resource. The complex, which is on a farm that has been worked since at least 1877, consists of a single-story residence, a cabin, a "cage house," a "brooder" structure, a shop, a garage, a barn, and the remnants of a calf shed and a sheep barn. The existing buildings and structures all date to the 1940s and 1950s (De Shazo and Evans, 2011:16-22). ARS evaluated the complex as not eligible for listing in the National Register (De Shazo and Evans, 2011:22), and the resource does not qualify as a historical resource, as defined in CEQA Guidelines Section 15064.5.

In summary, since certification of the Final EIR, one previously unrecorded cultural resource, a historic ranch complex, was recorded within the area that would be impacted by the proposed relocation of Americano Creek. ARS evaluated the resource as not eligible for listing in the National Register and there are no indications that the resource qualifies as a historical resource, as defined in CEQA Guidelines Section 15064.5. Also, two previously unrecorded cultural resources, historic-period archaeological site and prehistoric isolate ARS 10-016-01 and prehistoric archaeological site ARS 10-016-02, have been recorded adjacent to the area of the proposed creek relocation. In light of no subsurface studies of either archaeological site and their potential to have intact subsurface components, ARS 10-016-01 and ARS 10-016-02 are assumed to qualify as historical resources and unique archaeological resources, as defined in CEQA Guidelines Section 15064.5 and PRC Section 21083.2, respectively. Finally, the presence of obsidian artifacts at both ARS 10-016-01 and ARS 10-016-02 suggests that the portion of the Quarry site where Americano Creek would be relocated has a high sensitivity for prehistoric archaeological resources.

Regulatory Setting

The principal changes in cultural resources regulations under CEQA that have occurred since the Final EIR are associated with Assembly Bill (AB) 52 (2014). AB 52 only applies to those projects for which a lead agency has issued a Notice of Preparation of an EIR or Notice of Intent to adopt a negative declaration on or after July 1, 2015. Below is a summary of AB 52 and its requirements.

Assembly Bill 52

In September of 2014, the California Legislature passed AB 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze project impacts on "tribal cultural resources" separately from

archaeological resources (PRC Section 21074; 21083.09). The Bill defines "tribal cultural resources" in a new section of the PRC Section 21074. AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Section 21080.3.1, 21080.3.2, 21082.3).

Specifically, PRC Section 21084.3 states:

a) Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.

b) If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:

    1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

    2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

        (A) Protecting the cultural character and integrity of the resource.

        (B) Protecting the traditional use of the resource.

        (C) Protecting the confidentiality of the resource.

    3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

    4) Protecting the resource.

Finally, AB 52 required the Office of Planning and Research to update Appendix G of the CEQA Guidelines to provide sample questions regarding impacts on tribal cultural resources (PRC Section 21083.09).

3.6.3 Environmental Impacts and Mitigation Measures

Significance Thresholds

The following impact analysis considers whether the proposed modifications to the Use Permit, or changes to the setting in which the Quarry project would take place, would result in new or substantially more severe significant impacts than identified in the Final EIR, with respect to the following:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of formal cemeteries; or
- Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074.

3.6.4 Impacts and Mitigation Measures

Approach to Analysis

The following impact discussion analyzes separately impacts on architectural resources and archaeological resources, including those that are potentially historical resources according to CEQA Guidelines Section 15064.5. Impact 3.6-1 addresses architectural resources that may be historical resources, while Impact 3.6-2 addresses archaeological resources that may be either historical resources pursuant to CEQA Guidelines Section 15064.5, or unique archaeological resources, pursuant to PRC Section 21083.2(g).

The following provides an overview of how potential impacts on various types of cultural and paleontological resources are analyzed in the current document.

Architectural Resources

Potential impacts on architectural resources are assessed by identifying any activities (either during construction or operations) that could impact architectural resources that have been identified as historical resources for the purposes of CEQA. Once an architectural resource has been identified as a CEQA historical resource, it then must be determined whether the impacts of the project would "cause a substantial adverse change in the significance" of the resource (CEQA Guidelines Section 15064.5[b]). A substantial adverse change in the significance of a historical resource means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historic resource would be materially impaired" (CEQA Guidelines Section 15064[b][1]). A historical resource is materially impaired through the demolition or alteration of the resource's physical characteristics that convey its historical significance and that justify its inclusion in the California Register of Historical Resources (California Register) (CEQA Guidelines Section 15064.5[b][2][A]).

Archaeological Resources

Archaeological resources can include historical resources, according to CEQA Guidelines Section 15064.5, as well as unique archaeological resources, as defined in PRC Section 21083.2(g). The significance of most prehistoric and historical archaeological sites is usually assessed under California Register Criterion 4. This criterion stresses the importance of the information potential contained within the site, rather than its significance as a surviving example of a type or its association with an important person or event. Although it is less common, archaeological resources may also be assessed under California Register Criteria 1, 2, and/or 3. Archaeological resources may also be assessed under CEQA as unique archaeological

resources, defined as archaeological artifacts, objects, or sites that contain information needed to answer important scientific research questions.

Impacts on unique archaeological resources or archaeological resources that qualify as historical resources are assessed pursuant to PRC Section 21083.2, which states that the lead agency shall determine whether the project may have a significant effect on archaeological resources. As with architectural resources, above, whether the impacts of the project would "cause a substantial adverse change in the significance" of the resource must be determined (CEQA Guidelines Section 15064.5[b]).

Paleontological Resources

The paleontological analysis identifies the potential to encounter paleontological resources (i.e., plant, animal or invertebrate fossils or microfossils) during excavations associated with the project. A potentially significant impact on paleontological resources would occur if: (1) project-related ground disturbance were to move or excavate previously undisturbed geologic bedrock (native rock); and, (2) the bedrock to be disturbed has a high paleontological potential.

Fossils are considered to be unique paleontological resources; therefore, effects are considered significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; or
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important.

Human Remains

Human remains, including those buried outside of formal cemeteries, are protected under several State laws, including PRC Sections 5097.98 and 5097.99, and California Health and Safety Code (HSC) Section 7050.5. This analysis considers impacts on human remains including intentional disturbance, mutilation, or removal of interred human remains.

Tribal Cultural Resources

Tribal cultural resources are defined in PRC Section 21074(a) as a site, feature, place, cultural landscape, sacred place or object, which is of cultural value to a California Native American tribe that is either on or eligible for the California Register or a local historic register, or the lead agency, at its discretion, chooses to treat the resource as a tribal cultural resource. Cultural landscapes that meet the above criteria may also be tribal cultural resources if geographically defined in terms of size and scope. A historical resource, unique archaeological resource, or non-unique archaeological resource may also be a tribal cultural resource if it meets the criteria discussed above. Impacts on tribal cultural resources are assessed in consultation with affiliated Native American Tribes in accordance with PRC Section 21080.3. This analysis considers whether the proposed modifications to the Use Permit would cause damaging effects to any tribal cultural resource.

Impacts and Mitigation Measures

Impact 3.6-1: The proposed modifications to the Use Permit could cause a substantial adverse change in the significance of a historical resource. (*No New or Substantially More Severe Significant Impact*)

The Final EIR (Section IV.K, Cultural Resources, Impact K.1) found that no buildings, structures, sites, or objects eligible for inclusion on the California Register of Historic Resources were discovered within the area that would be disturbed by development and operation of the Quarry. The Final EIR Alternatives analysis made a similar finding for Alternative 2, Alternative Haul Route, regarding the alignment of the two private access roads and the section of Roblar Road that would be widened. The Alternatives analysis noted that, "Access Road 1 would extend in the vicinity of the ranch complex." This is the same general vicinity for the proposed relocation of Americano Creek. The Final EIR also states in Impact E.9 that improvements to the Stony Point Road/Roblar Road intersection (required by Mitigation Measure E.2a to include a southbound right turn lane to avoid long term cumulative impacts) would be designed to avoid any adverse effect to the historic Washoe House, a Sonoma County Historical Landmark and historical resource, as defined in CEQA Guidelines Section 15064.5, by further widening to the east if feasible. Mitigation Measure E.9 (adopted as Condition/Mitigation Measure 86) specifies implementation of the mitigation measures contained in the Initial Study/Mitigated Negative Declaration (IS/MND) for the intersection signalization (Sonoma County PRMD, 2005). The IS/MND recognized the Washoe House as a historical resource, as defined in CEQA Guidelines Section 15064.5, and included Mitigation Measure 5.1, requiring the establishment of the entire Washoe House parcel as an "Environmentally Sensitive Area" requiring special protections to ensure no damage would occur. The right turn lane was determined to be potentially infeasible due to necessary land acquisition, therefore, in approving the Quarry project, the Board of Supervisors adopted a Statement of Overriding Considerations for the significant, unavoidable long-term cumulative traffic impacts (see Section 3.4, Transportation and Traffic).

Through records searches, background research, and field surveys, one architectural resource, the historic ranch complex, was identified within the area that would be impacted by the proposed relocation of Americano Creek. ARS evaluated the complex and concluded that it is not eligible

for listing in the National Register, and the resource also does not qualify as a historical resource, as defined in CEQA Guidelines Section 15064.5. As noted above, one additional architectural resource, the Washoe House, is located adjacent to the Stony Point Road/Roblar Road intersection, where signalization upgrades would occur. The Washoe House qualifies as a historical resource, as defined in CEQA Guidelines Section 15064.5. The Applicant's proposed design for the Stony Point Road/Roblar Road intersection improvements would not include any disturbance of the Washoe House parcel. Condition/Mitigation Measure 86 would still apply to intersection improvements.

Therefore, with implementation of existing mitigation measures in the Final EIR, all of which were adopted as COA, the proposed modifications to the Use Permit would not result in a new or substantially more severe significant impact on historical resources.

Impact 3.6-2: The proposed modifications to the Use Permit could cause a substantial adverse change in the significance of an archaeological resource. (*No new or Substantially More Severe Significant Impact, After Mitigation*)

The Final EIR (Section IV.K, Cultural Resources, Impact K.1) notes that the Quarry site did not contain any recorded archeological resources, but noted the possibility that buried archaeological deposits could be present and encountered during land alteration activities associated with Quarry development and operation. Consequently, the Final EIR included Mitigation Measures K.1a and K.1b, requiring employee training and imposition of accidental discovery provisions. These measures were adopted as Conditions/Mitigation Measures 145 and 165. Similarly, Impact E.8 of the Final EIR notes the possibility of encountering previously undiscovered archaeological resources during construction of Roblar Road widening, and specifies Mitigation Measure E.8o (adopted as Condition/Mitigation Measure 84), which requires that an archaeologist analyze and determine the significance of any archaeological material discovered during construction. The Final EIR, Impact E.9, refers to a similar accidental discovery potential associated with implementation of the Stony Point Road/Roblar Road intersection improvements, and includes Mitigation Measure E.9 (Implement adopted mitigation measures contained in the Signalization of Stony Point Road at Roblar Road, Mitigated Negative Declaration and Mitigation Monitoring Program), which was adopted as Condition/Mitigation Measure 86.

Through records searches, background research, and field surveys, no archaeological resources have been identified in areas that would be impacted by the proposed modifications to the Use Permit. However, during ARS's 2011 investigations, two archaeological resources (ARS 10-016-01 and ARS 10-016-02) were identified adjacent to the portion of the Quarry site where Americano Creek would be relocated and where Roblar Road would be reconstructed/widened. ARS evaluated historic-period archaeological site ARS 10-016-01 as not eligible for listing in the National Register; however, given the history of the area's land use for ranching since the mid-19th century, any previously unrecorded archaeological material at the site associated with this period could be potentially significant. Therefore, unless subsurface investigations provide data that show otherwise, the site is assumed to qualify as a significant archaeological resource under

CEQA, as defined in CEQA Guidelines Section 15064.5. Similarly, because there have been no archaeological subsurface studies of ARS 10-016-02 and because of its potential to have an intact subsurface component, ARS 10-016-02 is assumed to qualify as a significant archaeological resource under CEQA, as defined in CEQA Guidelines Section 15064.5.

Though both ARS 10-016-01 and ARS 10-016-02 are not in areas that would be impacted by the proposed modifications to the Use Permit, their locations have been defined only through pedestrian survey, not subsurface investigations; therefore, there is the potential for these resources to extend into the area that would be disturbed by the relocation of Americano Creek and the widening of Roblar Road. Furthermore, the presence of obsidian artifacts at both ARS 10-016-01 and ARS 10-016-02 suggests that the portion of the Quarry site where Americano Creek would be relocated has a high sensitivity for prehistoric archaeological resources.

If any archaeological resource were encountered during implementation (i.e., ground-disturbing activities) of the proposed creek relocation or road widening and determined to qualify as a significant archaeological resource under CEQA, as defined in CEQA Guidelines Section 15064.5, damage to the resource could result in a significant impact to an archaeological resource. Thus, absent mitigation, the potential for the proposed modifications to the Use Permit to impact significant archaeological resources is considered a more severe impact than identified in the Final EIR.

Implementation of Final EIR Mitigation Measures K.1a, K.1b, and E.8o would help reduce this impact by requiring employee training and by requiring a halt to construction and significance evaluation in the event that archaeological resources are identified during Quarry development and operation and during construction of Roblar Road improvements. These mitigation measures continue to apply but, due to additional information (i.e., the presence of two archaeological resources in the vicinity of proposed construction activities) since certification of the Final EIR, additional mitigation is required to reduce any potential impacts on significant archaeological resources, pursuant to CEQA Guidelines Section 15064.5.

> **Mitigation Measure 3.6-2:** Archaeological monitoring of ground-disturbing construction activities associated with the relocation of Americano Creek and also those associated with Roblar Road widening/reconstruction near ARS 10-016-01 and ARS 10-016-02.
>
> Archaeological monitoring shall be conducted for any ground-disturbing construction activities associated with the relocation of Americano Creek, and also any ground-disturbing construction activities associated with Roblar Road widening/reconstruction activities that are within 200 feet of previously recorded archaeological resources ARS 10-016-01 and ARS 10-016-02. Monitoring shall be required for all surface alteration and subsurface excavation work in these areas, including grubbing, cutting, trenching, grading, use of staging areas and access roads, and driving vehicles and equipment. The archaeological monitoring shall be under direction of an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology (Supervising Archaeologist). An archaeological monitor shall be present during the specified construction ground-disturbing activities according to a schedule agreed upon by the Supervising Archaeologist and County until the Supervising Archaeologist has, in consultation with the County, determined that construction

activities could have no impacts on any potentially significant archaeological resources. Archaeological monitors shall record and be authorized to temporary collect soil samples and artifactual/ecofactual material, as warranted, for analysis. All recovered artifacts and samples not associated with human remains will be photographed on-site and removed to a secure location for temporary storage, cleaning and processing. On completion of the project, all retained artifacts and samples with a potential to increase our knowledge of the past will be permanently curated in a facility that meets the standards and guidelines of the Secretary of the Interior, as required by CEQA.

Archaeological monitors and the Supervising Archaeologist shall be empowered to temporarily redirect construction crews and heavy equipment until any potential archaeological material, including human remains, is evaluated. If suspected archaeological material, including human remains, is identified during monitoring, the procedures set forth in Mitigation Measure K.1b of the Final EIR shall be implemented. These measures consist of: halting construction activities at the location of the suspected archaeological material; inspection and significance assessment of the find by a qualified archaeologist (i.e., one meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology [Supervising Archaeologist]); and, if the find is determined to be a potentially significant archaeological resource under CEQA, pursuant to CEQA Guidelines Section 15064.5, development of a management plan for the resource, consistent with CEQA and County requirements and policies.

The management plan shall be developed and implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4(b)(3), and shall recommend preservation in place or, if preservation in place is not feasible, data recovery through excavation. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding resource site into a permanent conservation easement.

If the Supervising Archaeologist determines that any archaeological material identified during construction may have association with Native Americans, relevant Native American representatives (already identified by the California Native American Heritage Commission as the Federated Indians of Graton Rancheria) shall inspect the find within 24 hours of discovery and the County shall consult with potentially interested Native American representatives in developing the management plan for the resource and to determine if the resource qualifies as a tribal cultural resource, as defined in PRC Section 21074.

If preservation in place is not feasible, the Supervising Archaeologist shall prepare and implement, in coordination with the County and relevant Native American representatives (if applicable), a detailed treatment plan to recover the scientifically consequential information from and about the resource, which shall be reviewed and approved by the County prior to any excavation at the resource's location. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources, though not tribal cultural resources, would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting

of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals. Treatment for tribal cultural resources shall be determined through the consultation between the County and relevant Native American representatives (see Impact 3.6-5). After implementation of the management plan and treatment plan (if required), the Supervising Archaeologist shall submit a final report to the County, and relevant Native American representatives (if applicable), detailing their implementation and results.

If human remains are encountered, construction ground-disturbing activities within 100 feet of the find shall halt and the protocol set for in PRC Section 5097.98, including notifying the Sonoma County Coroner and, if needed, the California Native American Heritage Commission, shall be followed.

Resumption of ground-disturbing activities within 100 feet of any find shall only occur with written permission of the County.

Significance after Mitigation: Implementation of Mitigation Measure 3.6-2 would reduce potentially significant impacts on archaeological resources to a less-than-significant level by requiring archaeological monitoring during any ground-disturbing construction activities in areas with high archaeological sensitivity and proper treatment of any potential significant archaeological resources identified during construction. With implementation of Mitigation Measure 3.6-2, the proposed modifications to the Use Permit would result in no new or substantially more severe impact on archeological resources, compared to the Final EIR.

Impact 3.6-3: The proposed modifications to the Use Permit could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*No New or Substantially More Severe Significant Impact*)

The Final EIR found that Quarry development could have a significant impact on paleontological resources (Impact K.2) and specified Mitigation Measures K.2a through K.2f, requiring training of site employees to recognize paleontological resources; a pre-disturbance paleontological survey of the Quarry site and preparation of a monitoring and mitigation program; a salvage program for recovering discovered fossils; a monitoring program; and a progress report by the site paleontologist when the Quarry excavation is 50 percent complete. These measures were adopted as Conditions/ Mitigation Measures 145, 146, 147, 168, 169, and 170 and found sufficient to reduce the impact to less than significant. The Final EIR also notes in Impact E.8 that previously undiscovered paleontological resources could be unearthed during the widening of Roblar Road, and includes Mitigation Measure E.8p (adopted as Condition/Mitigation Measure 85), establishing accidental discovery procedures. Final EIR Mitigation Measure E.9 (adopted as Condition/Mitigation Measure 86) specifies implementation of the mitigation measures contained in the IS/MND for the intersection signalization (Sonoma County, 2005) which includes Mitigation Measure 5.3, requiring similar accidental discovery measures. The Alternatives analysis for the Alternative Haul Route also specifies application of Mitigation Measure E.8p to the development of Access Roads 1 and 2.

Based on records searches and background research, no known paleontological resources are present in the areas that would be impacted by the proposed modifications to the Use Permit. Though the general area of the Quarry site is considered sensitive for paleontological resources, the proposed relocation of Americano Creek would likely involve minimal disturbance of bedrock, thereby reducing the potential to encounter paleontological resources. However, if any paleontological resources were encountered during implementation of the proposed project and found to qualify as a unique paleontological resource, any impacts to the resource could be considered significant. In this case, Mitigation Measures K.2a through K.2f would apply to the relocation of Americano Creek, and Mitigation Measure E.8p would apply to the widening of Roblar Road and development of Access Road 2. Mitigation Measure E.9 would continue to apply to the intersection signalization under the Applicant's proposed design. With implementation of existing mitigation measures from the Final EIR, all of which have been adopted as COA, the proposed modifications to the Use Permit would have no new impact on unique paleontological resources or sites or unique geologic features, and previously identified impacts would not increase in severity.

Impact 3.6-4: The proposed modifications to the Use Permit could disturb human remains, including those interred outside of formal cemeteries. (*No New or Substantially More Severe Significant Impact, After Mitigation*)

The Final EIR included an accidental discovery mitigation measure (Mitigation Measure K.1c; adopted as Condition/Mitigation Measure 166) that would be applied in the event that human burials were discovered during excavation within the Quarry property. The IS/MND for the Stony Point Road/Roblar Road intersection signalization contained a similar measure which was adopted as Condition/Mitigation Measure 85.

Based on records searches, background research, and field surveys, no known human remains have been identified in the area of the Quarry site that would be impacted by the proposed relocation of Americano Creek. However, during ARS's 2011 investigations, two archaeological resources (ARS 10-016-01 and ARS 10-016-02) were identified close to the proposed footprint where Americano Creek would be relocated and Roblar Road would be reconstructed/widened. Since there have been no subsurface studies of either resource, and in light of their potential to have intact subsurface components, ARS 10-016-01 and ARS 10-016-02 could potentially contain human remains. Though the resources are not within the areas that would be disturbed by the proposed creek relocation or road widening, their locations have been defined only through pedestrian survey, not subsurface investigations. Furthermore, the presence of obsidian artifacts at both resources suggests that the area where Americano Creek would be relocated has a high sensitivity for prehistoric archaeological resources, which could contain human remains.

If any archaeological resource were encountered during implementation (i.e., ground-disturbing activities) of the proposed project and found to contain human remains, disturbance of the remains could constitute a significant impact under CEQA. Thus, the potential for the proposed modifications to the Use Permit to disturb human remains is considered significant. Implementation

of Final EIR Mitigation Measures K.1c and E.8p (adopted as Conditions/Mitigation Measures 166 and 85) would help reduce this impact by requiring a halt to construction and significance evaluation in the event that archaeological resources are identified during project construction activities. This mitigation measure continues to apply but, due to additional information (i.e., the presence of two archaeological resources in the vicinity of the proposed creek relocation and road widening) since the certification of the Final EIR, the proposed modifications to the Use Permit, absent mitigation, could have a more severe impact with regard to the potential for impacts on human remains, than was identified in the Final EIR.

Mitigation Measure 3.6-4: Implement Mitigation Measure 3.6-2.

Significance after Mitigation: Implementation of Mitigation Measure 3.6-2 would reduce potential significant impacts on human remains to a less-than-significant level by requiring archaeological monitoring during any ground-disturbing construction activities in areas with high archaeological sensitivity and treatment of any human remains identified during construction. With implementation of Mitigation Measure 3.6-2, the proposed changes to the Use Permit would not result in a new or substantially more severe impact on human remains, compared to the Final EIR.

Impact 3.6-5: The proposed modifications to the Use Permit could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. (*No New or More Significant Impact, After Mitigation*)

Tribal cultural resources had not yet been formally defined as a resource type under CEQA at the time of the Final EIR. However, outreach to the California Native American Heritage Commission (NAHC) and area Native American representatives was conducted in support of the Final EIR; this outreach included a search of the NAHC's Sacred Lands File (SLF) and communication with the Federated Indians of Graton Rancheria and the Ya-Ka-Ama Indian Educational Center. The SLF had no record of any sacred sites that could be impacted by the Quarry project, as described in the Final EIR, and correspondence with the Native American representatives concluded that there were no sacred sites that could be impacted by the Quarry project.

In 2010 and 2015, additional outreach to the NAHC and Native American representatives was conducted to determine if any Native American sacred sites could be impacted by Quarry development (Roop, 2017; De Shazo and Evans, 2011). This outreach included searches of the NAHC's SLF and correspondence with Native American representatives whose contact information was provided by the NAHC.

Based on communication with the NAHC and Native American representatives, and the archaeological field survey, there is no indication that tribal cultural resources could be impacted by the development of the Quarry, including the proposed modifications to the Use Permit. However, two archaeological resources (ARS 10-016-01 and ARS 10-016-02), both of which have prehistoric components, were identified adjacent to the portion of the Quarry site where Americano Creek would be relocated and where Roblar Road would be reconstructed/widened.

Though neither ARS 10-016-01 nor ARS 10-016-02 are in areas that would be impacted by the proposed modifications to the Use Permit, their locations have been defined only through pedestrian survey, not subsurface investigations; therefore, there is the potential for the resources to extend into the area that would be impacted by the proposed creek relocation and road widening. Furthermore, the presence of obsidian artifacts at both ARS 10-016-01 and ARS 10-016-02 suggests that the portion of the Quarry site where Americano Creek would be relocated has a high sensitivity for prehistoric archaeological resources.

If any archaeological resource were to be encountered during implementation (i.e., ground-disturbing activities) of the proposed creek relocation or road widening and were determined to qualify as a tribal cultural resource, as defined in PRC Section 21074, damage to the resource could result in a significant impact to a tribal cultural resource. Thus, the potential for the proposed modifications to the Use Permit to impact tribal cultural resources is considered significant. Implementation of Final EIR Mitigation Measures K.1c and E.8p (adopted as Conditions/Mitigation Measures 166 and 85) would reduce this impact by requiring a halt to construction and significance evaluation in the event that tribal cultural or other archaeological resources are identified during construction activities. These mitigation measures continue to apply but, due to additional information (i.e., presence of two archaeological resources in the vicinity of the proposed creek relocation and road widening) since the certification of the Final EIR, additional mitigation is needed to ensure that there would be no new or more severe impact on tribal cultural resources.

> **Mitigation Measure 3.6-5:** Implement Mitigation Measure 3.6-2.
>
> **Significance after Mitigation:** Implementation of Mitigation Measure 3.6-2 would reduce potential significant impacts on tribal cultural remains to a less-than-significant level by requiring archaeological monitoring during any ground-disturbing construction activities in areas with high archaeological sensitivity and treatment of any potential tribal cultural resources identified during construction. With Mitigation Measure 3.6-2, the proposed modifications to the Use Permit would not have the potential for a new or substantially more severe significant impact with respect to tribal cultural resources, compared to the Final EIR.

Cumulative Impacts

The geographic scope for cumulative effects on historical resources, archaeological resources, human remains, and tribal cultural resources consists of Sonoma County and Marin County. This area was selected because of the similar themes of its Native American use, and prehistoric and historic-period use and associated cultural resources. The cumulative analysis combines historical resources, archaeological resources, human remains, and tribal cultural resources into a single, non-renewable resource base and considers the additive effect of project impacts on: architectural resources or archaeological resources that qualify as historical resources, as defined in CEQA Guidelines Section 15064.5; human remains; and tribal cultural resources, as defined in PRC Section 21074. A new or substantially more severe significant cumulative impact would occur if impacts of the proposed modifications to the Use Permit after implementation of mitigation,

combined with the impacts of one or more cumulative projects, after implementation of their mitigation, to cause a substantial adverse effect on the same cultural resource.

Federal, State, and local laws can generally protect archaeological resources in most instances. Even so, it is not always feasible to entirely avoid archaeological sites or retain them in situ. Because all significant cultural resources are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base.

No historical resources, including archaeological resources that may qualify as historical resources, or human remains are known to be present within the areas that would be disturbed by the proposed creek relocation, road widening, or intersection improvements, though one historical resource (Washoe House) and several archaeological resources are in close proximity to these areas. However, mitigation measures identified in the Final EIR and in this section would reduce any impacts to previously unknown cultural resources, including human remains, to a less-than-significant level. For this reason, the proposed modifications to the Use Permit, with implementation of mitigation measures that have been adopted as COA as well as additional mitigation measures specified in this document, would not make a considerable contribution to a new or substantially more severe significant impact on cultural resources of the region.

The geographic scope for cumulative effects on paleontological resources and unique geologic features consists of the North San Francisco Bay Area. This area was selected because of similar paleontological and geological context. The cumulative analysis views paleontological resources and unique geologic features as a single non-renewable resource base and considers the additive effect of project impacts on such resources. A new or substantially more severe significant cumulative impact would occur if impacts of the proposed creek relocation, road widening, or intersection improvements, after implementation of mitigation measures, combined with the impacts of one or more cumulative projects, after implementation of their mitigation, to cause a substantial adverse effect on the same paleontological resource.

Federal, State, and local laws generally protect paleontological resources in most instances. Even so, it is not always feasible to entirely avoid paleontological sites or retain them in situ. Because all significant paleontological resources are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base.

No known paleontological resources are present in the areas that would be impacted by the proposed creek relocation, road widening, or intersection improvements. Therefore, the proposed modifications to the Use Permit would not be expected to result in any impacts to paleontological resources. Existing Conditions/Mitigation Measures would ensure that there are no new or substantially more severe impacts to previously unknown paleontological resources. For this reason, the proposed modifications to the Use Permit would not make a considerable contribution to any cumulative impacts on paleontological resources of the region; no new or substantially more severe significant impact would result.

3.6.5 References

Allen, James R., 2006. *Assessment of the Paleontologic Sensitivity of the Proposed Roblar Road Quarry, Sonoma County, California*, Letter report, Prepared for Janine M. Loyd, Tom Origer & Associates, Rohnert Park, CA, May 17, 2006.

De Shazo, Stacey, and Sally Evans, 2011. *A Historic Properties Inventory for the Roblar Road Quarry and Access Road Project, Sonoma County, California*, Prepared by Archaeological Resources Service, Prepared for North Bay Construction, December 1, 2011.

Roop, William, 2017. *A Reevaluation of the Roblar Road Quarry and Access Road Project, Sonoma County, California*, Prepared by Archaeological Resources Service, Prepared for John Barella, June 28, 2017.

Steen, Eileen, and Vicki R. Beard, 2005. *A Cultural Resources Survey for the Roblar Road Quarry Environmental Impact Report Sonoma County, California*, Prepared by Tom Origer & Associates, Rohnert Park, CA, Prepared for Environmental Science Associates, San Francisco, CA, December 5, 2005.

Steen, Eileen, and Thomas M. Origer, 2007. *A Cultural Resources Survey Addendum for the Roblar Road Quarry Environmental Impact Report Sonoma County, California*, Prepared by Tom Origer & Associates, Rohnert Park, CA, Prepared for Environmental Science Associates, San Francisco, CA, March 6, 2007.

3.7 Other Environmental Topics

3.7.1 Introduction

This section provides a brief analysis of the potential for the proposed modifications to the Use Permit Conditions of Approval (COA) to affect the other environmental topics that CEQA requires consideration of. These topics received the same level of attention and environmental analysis as topics covered in the previous sections. They are presented here because preliminary analysis indicated that the proposed modifications would not have the potential for any new or substantially more severe significant impacts, as compared to the project and impacts identified in the Final Environmental Impact Report (Final EIR).

3.7.2 Aesthetics

The Final EIR concluded in Section IV.I, Aesthetics, Impact I.1, that development of the Quarry would have a significant unavoidable impact because it would substantially alter the visual character of the project site and adversely affect views of the site from both public and private vantage points. The Final EIR also examined the potential aesthetic effects of widening Roblar Road (Impact E.8), and found that widening improvements on Roblar Road would result in the removal of a number of trees and other vegetation, re-contouring of some adjacent slopes, and the potential installation of roadway support features (e.g., retaining walls or embankments) in some locations, resulting in the potential for a significant visual impact. The Final EIR included Mitigation Measure E.8n, requiring revegetation of disturbed areas with native trees and shrubs; use of natural finishes to soften the visual impact of any retaining walls or other hard structures; and a vegetation maintenance program. This measure was adopted as Condition/Mitigation Measure 83. The Initial Study/Mitigated Negative Declaration (IS/MND) for the Stony Point Road/Roblar Road intersection signalization (Sonoma County PRMD, 2005) concluded that intersection improvements would not result in a significant aesthetic impact.

No substantial changes have occurred in the environmental setting for aesthetics since certification of the Final EIR, and no new information has come to light that would alter the conclusions of the Final EIR or IS/MND.

The Applicant's proposed changes to the design of the intersection improvements and widening of Roblar Road would not result in any new or more severe significant impact than identified in the IS/MND and in the Final EIR.

The portion of the Quarry site that would be affected by the relocation of Americano Creek is visually similar to the rest of the site. Section IV.I, Aesthetics, of the Final EIR describes the Quarry site and its visual sensitivity as follows, with reference to Sonoma County Permit and Resource Management Department's Visual Assessment Guidelines for visual sensitivity:

> The project site would be considered to be of moderate visual quality overall. The project vicinity is rural and characterized by rolling hills covered predominantly by grasslands. Single-family residences as well as structures associated with agricultural use are

> dispersed among the hills. The project site is primarily undeveloped, consistent with nearby properties in terms of visual characteristics.

The Final EIR notes that the Quarry project site is visible from public roadways, including three County-designated scenic corridors, but that the project site is not located within a scenic corridor setback (defined as 30 percent of the depth of the lot to a maximum of 200 feet from the centerline of the roadway), and the site's zoning and land use designation does not identify it as a protected scenic resource. The portion of the Quarry site where the relocation of Americano Creek would take place is not visible from any of the three scenic corridors (Valley Ford Road, Bloomfield Road, and Burnside Road). The Final EIR states that the Quarry site itself does not constitute a significant scenic or natural resource nor does it contain individual landscape or architectural features with significant aesthetics value.

The relocation of Americano Creek would involve vegetation removal and ground disturbance that may result in a short-term impact on visual character. The impact would be consistent in degree and extent with that described in Final EIR Impact E.8 for the widening of Roblar Road. According to the Applicant's *Planting Plan for Americano Creek Realignment* (Planting Plan; Winfield, 2017; Appendix A), most of the riparian vegetation along the southwestern bank of Americano Creek would be retained, and disturbed areas and areas adjacent to the relocated stream channel would be revegetated. With the maintenance of this riparian area and implementation of the Planting Plan, aesthetic impacts would be subordinate or co-dominant with existing natural features and compatible with the existing visual character. Following completion of the creek relocation, including revegetation of the relocated creek channel, floodplain, and disturbed areas, the visual quality of the area is likely to be improved, as it will be a more extensive and intact riparian forest. While there would be short-term impacts to visual quality during and following relocation of the creek, these impacts would not be more severe than those identified in Final EIR Impact E.8n., and no new or additional impact would occur. Therefore, there would be no new or more severe significant aesthetics impact stemming from relocation of Americano Creek, compared to the aesthetic impacts identified in the Final EIR.

3.7.3 Air Quality and Greenhouse Gas Emissions

The Final EIR, Section IV.F, Air Quality, concluded that the Quarry project would have a significant unavoidable impact, as well as a significant unavoidable contribution to a cumulative impact, due to emissions of criteria air pollutants (Impacts F.1 and F.7), but less than significant impacts from emissions of carbon monoxide, diesel particulate matter, and crystalline silica (Impacts F.2, F.3, and F.5). Dust emissions would be significant (Impact F.4) but mitigable with implementation of Mitigation Measure F.4, which requires a comprehensive dust management and meteorological monitoring program. This measure was adopted as Condition/Mitigation Measure 161. Impact F.6 found that emissions of greenhouse gases (GHGs) from fossil fuel combustion, energy use, and conversion of land use would be a significant impact. Mitigation Measure F.6a, requiring the Quarry operator to conduct and report an annual inventory of GHG emissions, and F.6b, requiring the Quarry operator to reduce and offset GHG emissions to below the threshold limit of 1,100 metric tons of CO2 equivalent (CO2e) per year, were found sufficient to

reduce this impact to less than significant. These measures were adopted as Conditions/Mitigation Measures 162 and 163.

The IS/MND for the Stony Point Road/Roblar Road signalization project did not examine GHG emissions, but the scale of the construction of the improvements would not be expected to result in substantial (and therefore significant) quantities of GHGs. In addition, the signalization of the intersection would not increase road capacity, which could generate additional GHG emissions.

Since certification of the Final EIR, the concentration of GHGs in the atmosphere has continued to increase, and the effects of global climate change, both in California and throughout the world, are now acknowledged by the scientific community as increasingly evident. Regulation of GHGs in California has been strengthened, with new statewide targets set for GHG reductions and the adoption of the First Update to the Climate Change Scoping Plan by the California Air Resources Board (ARB) in 2014. In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. The Legislature also passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. In September, 2018, Governor Brown signed into law SB 100, which establishes a 2045 target for achieving 100 percent of California's electricity from carbon-free sources. SB 100 also increases the 2030 target to 60 percent.

In Sonoma County, the Sonoma County Regional Climate Protection Authority (RCPA) is a joint powers authority whose signatories include the County and its nine cities. The RCPA prepared the Climate Action 2020 and Beyond Plan, which builds on prior commitments to reduce greenhouse gas emissions through a community-wide climate action plan (CAP) for all communities in Sonoma County. The regional framework creates an efficient and consistent approach to address climate change but allows local governments to adopt locally appropriate measures to reduce GHG emissions. It also provides information about local climate hazards and what Sonoma County communities can do to prepare. The RCPA board adopted the plan on July 11, 2016, after certifying a Programmatic EIR for the plan. In July, 2017, the EIR was set aside by the Sonoma County Superior Court.

The Bay Area Air Quality Management District's (BAAQMD) 2017 CEQA Guidelines (BAAQMD, 2017) establish the significance threshold for operational GHG emissions as 1,100 metric tons of CO_2e per year, the same threshold as used in the Final EIR. The Guidelines do not establish a threshold for construction-related GHG emissions.

None of the proposed modifications to the Use Permit would result in substantially greater emissions of criteria pollutants, carbon monoxide, toxic air contaminants, or GHGs, compared to the Quarry project analyzed in the Final EIR, and Conditions/Mitigation Measures 161, 162 and 163 would continue to apply. Therefore, the proposed modifications would not result in a new or substantially more severe significant impact related to air quality or GHGs.

3.7.4 Land Use and Agricultural Resources

The Final EIR (Section IV.A, Land Use and Agricultural Resources, Impact A.1) identified a significant unavoidable impact due to the Quarry project's incompatibility with nearby residential land uses. The Final EIR also identified a significant impact related to conversion of farmland on the Quarry property to non-agricultural use (Impact A.3) and to a conflict with a Williamson Act contract governing the Quarry property (Impact A.4). The Final EIR found these impacts could be reduced to less-than-significant through implementation of Mitigation Measure A.4, requiring that no development of the project may commence until rescission of the Williamson Act contract covering the 70-acre portion of the project site where the Quarry is to be developed, and transfer of a permanent conservation easement on a separate exchange site. This measure was not adopted as a COA, as the Applicant chose to delay development of the Quarry until after the Williamson Act contract expired. The Final EIR also identified no impact related to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Impact A.3), and a less-than-significant contribution to a cumulative impact from cumulative loss of farmland within Sonoma County (Impact A.5).

The Final EIR also noted in Impact E.8 that, depending on the final alignment and limits of construction, the roadway widening improvements for Roblar Road would result in the temporary and permanent loss of some agricultural land/open space along the roadway alignments, including the potential for loss of some prime farmland. The roadway widening improvements could also conflict with Williamson Act contracts and conservation easements governing a number of adjacent properties along the alignments.

The Final EIR Alternatives analysis of Alternative 2, Alternative Haul Route/Contracted Sales Only, includes a discussion of Land Use and Agricultural Resources impacts, including potential conflicts with Williamson Act contracts along the Access Road 1 and Access Road 2 alignments and the portion of Roblar Road that would be widened.

The IS/MND for the Stony Point Road/Roblar Road intersection signalization project concluded that this project would not result in a significant impact with regard to agricultural resources or land use and planning.

Since certification of the Final EIR and approval of Modified Alternative 2, the Williamson Act contract on the 70-acre Quarry parcel has expired, though a Williamson Act contract is still in effect on the 128-acre balance of the Quarry project site, including the portion of the site where Americano Creek would be relocated. The County may find that relocation and restoration of the creek is consistent with Williamson Act contract restrictions, through a Finding of Compatibility consistent with the Sonoma County Uniform Rules for Agricultural Preserves and Farmland Security Zones (amended December 20, 2016).

On November 24, 2014, the Sonoma County Board of Supervisors adopted Ordinance No. 6089 (Riparian Corridor Ordinance) which, among other actions, amended stream protection policies for riparian corridors to implement Sonoma County General Plan 2020. As discussed in Section 3.3, Biological Resources, the purpose of the ordinance is to protect and enhance riparian corridors and functions while balancing the need for other land uses, including mining, with the

preservation of riparian vegetation, protection of water resources, floodplain management, wildlife habitat and movement, stream shade, fisheries, water quality, channel stability, groundwater recharge, opportunities for recreation, education and aesthetic appreciation and other riparian functions and values. The ordinance establishes allowable uses within a streamside conservation area. The ordinance also provides the basis for approval of other activities or uses not meeting the list of allowed land uses within a riparian corridor with an exception under Section 26-65-030 (Prohibited Uses and Exceptions), subject to a use permit and approval of a conservation plan. Actions such as the proposed relocation of Americano Creek may be found to be a consistent use, if an approved conservation plan demonstrates that relocation enhances the riparian corridor and riparian and stream functions.

The portion of Americano Creek adjacent to and within the Quarry project site is shown on the Sonoma County Riparian Corridor Combining Zone Planning Area 8 map as having a 200-foot setback. The proposed alignment for the relocated creek channel appears to be wholly within this setback, and therefore the proposed relocation is subject to the restrictions and requirements of the Riparian Corridor Ordinance. The Applicant's Planting Plan (Winfield, 2017; Appendix A) provides for the appropriate protection of biotic resources, water quality, and other riparian functions. Through implementation of the Planting Plan, the relocated drainage would provide equivalent or superior ecological benefits to the existing riparian habitat, once vegetation becomes established on the site.

The Applicant's design for the signalization of the Stony Point Road/Roblar Road intersection would limit disturbance to the existing right-of-way and hardscaped area. Therefore, no changes in land use or adverse effects on agricultural resources would occur.

The Applicant's design for the widening of Roblar Road has been modified to reduce roadway width and would limit ground disturbance due to a narrower road section compared to the design approved as part of Modified Alternative 2. Furthermore, the "S" curve would not be straightened as previously specified, thereby further reducing the amount of land that would be disturbed. The Final EIR in Impact E.8 and the analysis of Alternative 2 notes that the widening of Roblar Road could conflict with agricultural resources and Williamson Act contracts and conservation easements governing a number of adjacent properties along the alignments. The Applicant's proposed design for the widening of Roblar Road involves a narrower roadway section than approved in the Final EIR. Therefore, road widening impacts to land use and agricultural resources would be less than those identified for the Quarry project or Alternative 2 in the Final EIR. Public roads are listed as a compatible use under the Sonoma County Uniform Rules for Agricultural Preserves and Farmland Security Zones (amended December 20, 2016). Similar to the approved project, findings of compatibility may be made for the road improvements resulting in the minor loss of agricultural lands under Williamson Act contracts.

The proposed relocation of Americano Creek would result in the loss of a small amount of grazing land from the southwest portion of the Quarry site. The Quarry project's contribution to the cumulative loss of agricultural land was analyzed in the Final EIR and found not to be cumulatively considerable. The small amount of acreage involved in the relocation of Americano Creek would not change this conclusion.

In summary, the proposed modifications to the Use Permit would not result in a new or substantially more severe significant impact on land use or agricultural resources.

3.7.5 Population/Housing

Because none of the proposed modifications to the Use Permit would induce any population growth, displace any existing housing, or displace any people, the proposed modifications would have no adverse effect on population or housing.

3.7.6 Public Services and Utilities

Final EIR Section IV.J, Public Services and Utilities, found that the Quarry project would have a significant impact by increasing demand for fire protection and emergency medical services (Impact J.1), but that this impact would be reduced to less than significant by implementing Mitigation Measure J.1, which would ensure that proper emergency access and fire prevention features are incorporated into the project. This measure was adopted as Condition/Mitigation Measure 164. Other impacts on public services and utilities were found to be less than significant.

The proposed modifications to the Use Permit would not result in increased demand for utilities, emergency services, or other public services, and so would not have a new or more severe significant impact on public services or utilities.

3.7.7 Noise and Vibration

Final EIR Section IV.G, Noise and Vibration, identified a significant noise impact from Quarry operation (Impact G.1), that could be mitigated to less-than-significant with Mitigation Measure G.1a, requiring noise monitoring and imposition of restrictions on noisy activities if monitored noise levels exceed a threshold value; and Mitigation Measure G.1b, restricting noise sources to daytime hours. These measures were adopted as Conditions/Mitigation Measures 34 and 35. Furthermore, Section IV.G of the Final EIR identified a significant noise and vibration impact of blasting associated with aggregate mining within the Quarry (Impact G.3), that could be mitigated to less than significant with preparation and implementation of a blasting plan meeting specified requirements (Mitigation Measures G.3a-g). These measures were adopted as Condition/Mitigation Measure 36.

Section IV.G of the Final EIR also identified two significant and unavoidable noise impacts (Impact G.2, and G.4) associated with increased roadway noise and contributions to cumulative roadway noise, respectively, from Quarry trucks on Roblar Road between the Quarry entrance and Valley Ford Road. Two sensitive receptors (residences) located along Roblar Road would be affected on this roadway segment. The Final EIR included Mitigation Measure G.2 (adopted as Condition/Mitigation Measure 15), requiring the Applicant to fund residential noise insulation upgrades on these two residences sufficient to maintain existing interior noise levels with the increased truck traffic. Because this measure would require the agreement of private landowners, its feasibility was in question, and these impacts were found to be significant and unavoidable. In approving Modified Alternative 2, the Sonoma County Board of Supervisors adopted a Statement of Overriding Considerations addressing these impacts.

The Final EIR also identified a potential noise impact from construction of widening improvements (Impact E.8), and specified Mitigation Measure E.8m, requiring muffling of construction equipment engines and restrictions on construction hours. This measure was adopted as Condition/Mitigation Measure 82. The Final EIR concluded that this measure would be sufficient to reduce noise from off-site road improvements associated with Alternative 2 to less than significant.

The IS/MND for the Stony Point Road/Roblar Road intersection signalization also identified a significant temporary noise and vibration impact from construction of intersection improvements, and imposed Mitigation Measure 11.1, also requiring muffling of construction equipment engines and restrictions on construction hours. All mitigation measures from the IS/MND were re-specified as Final EIR Mitigation Measure E.9 and adopted as Condition/Mitigation Measure 86.

Since certification of the Final EIR, no substantial changes have occurred in the local noise environment: there are no new major noise sources or sensitive receptors. Regulation of noise has not changed.

The proposed modifications to the Use Permit would not change Quarry operations or the amount or type of traffic associated with Quarry operations. Therefore, no new or more severe significant noise or vibration impact associated with Quarry operations would occur.

The impacts of constructing Stony Point Road at Roblar Road intersection signalization improvements according to the Applicant's proposed design would not be expected to result in more noise or noise emitted closer to sensitive receptors than anticipated and analyzed in the IS/MND. No new or more severe significant impact would occur.

Widening of Roblar Road according to the Applicant's proposed design would not result in higher noise levels than were analyzed in Final EIR Impact E.8. However, the Applicant's proposal not to straighten the "S" curve, and instead to widen the road through this section, would bring construction activities closer to an existing residence located just north of the "S" curve, and in close proximity to the roadway. As a result, construction noise would be incrementally louder at this residence, compared to noise levels anticipated in Impact E.8. However, because the "S" curve would not be straightened at this location, the Applicant's design would require overall less grading and other construction activity in this location, thus resulting in a lower level and a shorter duration of construction noise. Condition/Mitigation Measure 82 (Mitigation Measure E.8m) would be effective in reducing the construction noise impacts on this residence to less than significant by requiring muffling of construction equipment engines and restricting construction hours. With application of this Condition/Mitigation Measure, there would not be a new or substantially more severe construction noise impact associated with construction of Roblar Road improvements.

By not eliminating the "S" curve, the Applicant's proposed design for widening of Roblar Road would bring traffic, including Quarry trucks, closer to this same residence than would have been the case with road improvements described under Modified Alternative 2. The current road alignment, which would be used (and widened) under the Applicant's proposed design, is about 50 feet closer to this residence than the conceptual alignment for a straightened "S" curve, as

shown in Figure 2.7d in Chapter 2, Project Description. The Applicant proposes to increase the road width, bringing the centerline about 5-10 feet closer to the residence than the existing road centerline. Table V-6 in the Final EIR shows the modeled increase in ambient noise from increased truck traffic associated with Alternative 2, and concludes that the typical increase on the section of Roblar Road west of the Quarry entrance used by Quarry haul trucks would be 7.4 dBA[1] above baseline. The long-term cumulative increase would be 6.1 dBA above baseline (assuming that the long-term cumulative baseline would be slightly higher than short-term). These increases are 0.5 to 0.6 dBA higher than the project as originally proposed and evaluated in EIR impacts G.2 and G.4, since Alternative 2 would route all Quarry haul trucks onto this section of Roblar Road, while under the original proposal some haul trucks would have used Roblar Road east of the Quarry. The modeling did not specifically examine effects on the residence at the "S" curve associated with increased truck traffic or changes in the road alignment that would occur under Alternative 2, but instead provided a representative result for the entirety of Roblar Road west of the Quarry entrance.

To gauge the difference in noise levels at the residence at the "S" curve between the approved Modified Alternative 2 and the Applicant's proposed design, the general rule is applied, that there is a 3 dBA decrease in noise levels for each doubling of distance from the noise source (as described in Section IV.G in the Final EIR). Since straightening the "S" curve would have approximately doubled the distance from the road centerline to this residence – moving it from about 50 feet from the residence to about 100 feet – noise levels at the residence with the Applicant's proposed design would be about 3 dBA greater than would be the case if the road were straightened at this location. Modified Alternative 2, with straightening of the "S" curve, would have resulted in noise levels at the residence about 3 dBA less than described in Final EIR Table V-6, which estimated noise levels 50 feet from the road centerline. Because the Applicant's proposed design would keep the road centerline about 50 feet from the residence, the resulting increase in noise levels would be the same as shown in Table V-6 for Alternative 2. In either instance, the increase at the residence would be more than 3 dBA above the baseline, and would therefore be significant, as identified in Final EIR Impacts G.2 and G.4. The conclusion in the Final EIR, that is, that Impacts G.2 and G.4 would also apply to Alternative 2, does not change with the Applicant's proposed design. These impacts could be mitigated with implementation of Mitigation Measure G.2, but would be significant and unavoidable if the property owner refuses to implement the improvements specified in this mitigation measure. The Applicant's proposed design would not result in a substantially more severe significant impact than analyzed in the Final EIR.

The relocation of Americano Creek would also entail construction activities that would generate noise. While noise monitoring and restricting requirements in Conditions/Mitigation Measures 34, 35, and 82 address noise from road-widening, they do not address construction noise and vibration from the proposed creek relocation. Therefore, Mitigation Measure E.8m would require modification as follows:

[1] dBA is the abbreviation for A-weighted decibels, which are a common measure of sound where frequencies are adjusted to mimic the typical sensitivity of the human ear.

Mitigation Measure E.8m: Roadway widening and creek relocation construction activities for this project shall be restricted as follows:

- All internal combustion engines used during construction of this project shall be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code.

- Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 a.m. and 7:00 p.m. on weekdays and 9:00 a.m. and 7:00 p.m. on weekends and holidays. Only work that does not require motorized vehicles or power equipment shall be allowed on holidays. If work outside the times specified above becomes necessary, the resident engineer shall notify the PRMD Environmental Review Division as soon as practical.

Significance after Mitigation: The application of the specified measures to creek relocation construction activities would ensure that these activities would not result in excessive noise. The impact would be less than significant, both for road widening and for creek relocation construction.

3.7.8 Growth-Inducing Impacts

The Final EIR, Chapter 6, Impact Overview, concluded that the Quarry project would not result in substantial growth inducement.

The proposed modifications to the Use Permit would not remove a barrier to development, would not facilitate future development by extending roadways or utilities into currently unserved areas, and would not substantially increase employment or population, and so would not increase demand for housing or services. Therefore, the proposed modifications would not result in a new or more severe significant growth-inducing impact.

3.7.9 References

Bay Area Air Quality Management District (BAAQMD), 2017. *California Environmental Quality Act Air Quality Guidelines.* May, 2017.

Sonoma County PRMD, 2005. *Mitigated Negative Declaration / Initial Study and Mitigation Monitoring Program: Signalization of Stony Point Road at Roblar Road.* Prepared for Sonoma County Department of Transportation & Public Works. October, 2005.

Winfield, Ted, Ph.D. 2017. *Conceptual Planting Plan for Realigned Americano Creek.* August 21, 2017. (Included in this document as Appendix A.)

This page intentionally left blank

CHAPTER 4
Report Preparers

4.1 EIR Preparers

Report Authors

County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, California 95403-2829

EIR Manager: Chris Seppeler, Senior Environmental Specialist
Planner: Blake Hillegas, Supervising Planner

EIR Consultants

Environmental Science Associates
550 Kearny Street, Suite 800
San Francisco, California 94104

Project Director:	Paul Mitchell
Project Manager:	Dan Sicular, Sicular Environmental Consulting
Staff:	Lisa Bautista
	Ron Teitel
	Jack Hutchison
	Brian Pittman
	Robin Hoffman
	Peter Hudson, Sutro Sciences
	Justin Taplin, Sutro Sciences

Project Applicant and Property Owner

Quarry Owner:	Barella Family LLC
Project Applicant:	John Barella Land Investments
Applicant's Consultants:	BKF Engineers
	Ted Winfield, Ph.D.
	W-Trans
	Scott Briggs, Ph.D.

This page intentionally left blank

APPENDIX A

Conceptual Planting Plan for Realigned Americano Creek

CONCEPTUAL PLANTING PLAN
FOR
REALIGNED AMERICANO CREEK

ROBLAR ROAD QUARRY PROJECT
SONOMA COUNTY, CA

Prepared for and Submitted to
Permit and Resource Management Department
Sonoma County

on Behalf of:

John and Andrea Barella
P.O Box 751389
Petaluma, CA 94975

Prepared by:

Ted P. Winfield, Ph.D.
Ted Winfield & Associates
1455 Wagoner Drive
Livermore, CA 94550

August 21, 2017

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

Americano Creek, which flows along the northwest side of the Project Site and immediately adjacent to Roblar Road, is considered a perennial creek. The segment of the creek at the Project Site has been channelized and riprap installed along its bank adjacent to Roblar Road to project the road from erosion and scour. The opposite, southeastern bank of the creek supports a narrow band of Arroyo willow riparian woodland along much of its length at the Project Site.

Americano Creek at the Project Site supports a mixture of native and non-native plants commonly found in wetlands along the creek bottom and the lower part of its banks. The creek channel and banks provide habitat for reptile and amphibian species, including the western pond turtle, bullfrog, and possibly the California red-legged frog, that rely on aquatic habitat for some or all of its habitat requirements. The riparian woodland along the southeastern side of the creek provides habitat for a variety of wildlife, including small, medium and larger mammals (e.g., deer), reptiles, and nesting and foraging habitat for a variety of migratory song birds.

The narrow riparian corridor along much of Americano Creek becomes wider toward the southwestern part of the Project Site where Ranch Tributary, which is outside the Project Site boundary, flows into Americano Creek. Americano Creek at the Project Site provides a movement corridor for wildlife accessing Ranch Tributary and the nearby property to the south of the Project Site.

Americano Creek has limited hydraulic capacity through the Project Site. During larger storm events water will flood the adjoining low areas of the Project Site and flow back into the creek toward the southwest end of the Project Site.

1.1 EXISTING CONDITIONS

1.1.1 Hydrology/Topography

Americano Creek is a regional creek with a 39-square-mile watershed, draining westward towards Bodega Bay through Estero Americano (Estuary of Americano Creek). The headwater of Americano Creek is located approximately one mile east of the Project Site at an elevation of about 340 feet above (mean sea level (msl)). The tributary area of the creek upstream of the Project site is approximately 950 acres. This is anticipated to generate approximately 500 CFS during a 25-year storm event.

The creek extends westerly generally paralleling Roblar Road along the north side of the roadway. Approximately 400 feet upstream from the existing access road to the Project Site, Americano Creek crosses under Roblar Road and continues westerly along the Project Site's northwestern boundary.

Americano Creek has been channelized along much of its length on the Project Site and extensive riprap installed to protect Roblar Road from scour. Downstream of the Project

Site, Americano Creek flows roughly southwesterly to the Valley Ford Road area, where the elevation is about 60 feet msl, and then westerly into the Estero Americano.

Americano Creek is considered a perennial stream although during the recent drought surface flow in the creek was absent during summer and early fall months.

The realigned Americano Creek channel will be located on the existing floodplain adjacent to the existing creek channel. The area is relatively flat except for the existing entrance road to the Project Site from Roblar Road. The current access road will be removed within the footprint of the realigned channel along with the existing culvert across Americano Creek.

1.1.2 Soils/Substrate

Based on the Natural Resources Conservation District soil survey map of the region (SoilWeb Network),[1] soils in the area where Americano Creek will be realigned consist of four different soil types. These soil types include *Blucher fine sandy loam, overwash, 0 to 2 percent slopes* (Blucher fine sandy loam); *Los Osos clay loam, thin solum, 15 to 30 percent slopes, eroded* (Los Osos clay loam); *Clear Lake clay, 2 to 5 percent slopes* (Clear Lake clay); and *Steinbeck loam, 9 t0 15 percent slopes, eroded* (Steinbeck loam). Most of the realigned Americano Creek will occur in soils mapped as Steinbeck loam, Los Osos clay loam and Blucher fine sandy loam. The Blucher fine sandy loam is found on gentle sloping land associated with drainage ways and alluvial fans. The upper 0 to 34 inches is characterized by fine sandy loam transitioning to a clay loam between 34 and 60 inches. Blucher fine sandy loam is somewhat poorly drained with the depth to restrictive feature being more than 80 inches. Blucher fine sandy loam is listed as a hydric soil in California.

The soils mapped as Clear Lake clay exhibit the traditional dark matrix chroma of Clear Lake clay soils but the texture of these soils is more like a clay loam than a clay soil. Clear Lake clay is listed as a hydric soil in California.

Los Osos soils consists of well-drained clay loams with a clay subsoil. These soils are underlain by weathered, fractured sandstone and shale that occur at depths of 15 to 50 inches. These soils occur on rolling hills and mountainous uplands. Steinbeck soils consist of moderately drained loams that have subsoil consisting mainly of clay loam. Neither of these soil types are listed as hydric soils in California.

1.1.3 Vegetation

The area adjacent to the riparian woodlands along Americano Creek where the creek channel will be realigned consists of a mixture of non-native annual grasses and forbs,

[1] SoilWeb is a streaming interface to U.S. Department of Agricultural-National Cooperative Soil Survey (NCSS) Soil Survey Geographic Database and State Soil Geographic Database digital soil survey products. Streaming-KMZ interface was designed by California Soil Resource Lab, as a collaborative effort with the NCSS.

reflecting the past agricultural use of the land, including annual bluegrass, dovefoot geranium (*Geranium molle*), Harding grass, (*Phalaris aquatica*) perennial ryegrass (*Festuca perennis*), six-weeks fescue (*Festuca bromoides*), soft chess (*Bromus hordeaceus*), slender wild oats (*Avena barbata*), white clover, common groundsel (*Senecio vulgaris*), bull thistle (*Cirsium vulgare*), bull mallow (*Malva nicaeensis*), weedy cudweed (*Gnaphalium luteo-album*), bur clover (*Medicago polymorpha*), curly dock (*Rumex crispus*), and rough cat's-tongue (*Hypochaeris radicata*).

The vegetation along the section of Americano Creek where the realigned channel will be constructed is dominated by riparian trees and shrubs, including red willow (*Salix laevigata*) and arroyo willow (*Salix lasiolepis*), and thick stands of Himalayan blackberry shrubs (*Rubus armeniacus*). The understory includes a mix of primarily non-native grasses and forbs, including perennial ryegrass, annual bluegrass (*Poa annua*), Harding grass, English plantain (*Plantago lanceolata*), Hyssop loosestrife (*Lythrum hyssopifolia*), dovefoot geranium, wild radish (*Raphanus sativus*), lanceleaf water plantain (*Alisma lanceolatum*), and the native tall flatsedge (*Cyperus eragrostis*).

1.1.4 Aquatic Functions

Americano Creek along the Project Site supports a mixture of native and non-native wetland plants along the creek bottom and the lower part of the bank on the southeastern side. The creek provides habitat for species, such as the western pond turtle, bullfrog, and possibly the California red-legged frog, that rely on aquatic habitat for some or all of its habitat requirements. Later in the year as winter precipitation wanes the surface flow in the creek is reduced or no longer present, isolated pooled areas may provide suitable habitat for breeding amphibians (frogs, toads, newts, etc.) and insects. Wildlife from the surrounding areas may visit the areas of ponded water for drinking and food (birds feeding on insects, snakes feeding on frogs, toads, etc.).

The riparian woodland along the southeasterly side of the creek provides habitat for a variety of wildlife, including small, medium and larger mammals (e.g., deer), reptiles, and nesting and foraging habitat for a variety of migratory song birds. The riparian vegetation, especially the willows, provide organic matter to the creek (i.e., leaves) that contributes to the aquatic food chain in the creek.

The narrow riparian corridor along the southeasterly side of much of Americano Creek becomes wider toward the southwestern part of the Project Site where the Ranch Tributary, which is outside the Project Site boundary, flows into Americano Creek. Americano Creek at the Project Site serves as a movement corridor for wildlife allowing wildlife to access Ranch Tributary and the nearby property to the South of the Project Site.

Americano Creek may have limited hydraulic capacity at the Project Site. During periods of higher flows, water overflows onto the adjoining low land areas of the Project Site and eventually flows back into the creek toward the southwestern end of the Project Site. The vegetation cover in the bottom of the creek is variable.

2.0 MITIGATION DESIGN

Americano Creek along most of its course on the Project Site will be realigned away from Roblar Road (Figure 1). The realigned channel will be approximately 935 feet long with a 14-foot wide creek bed covering approximately 0.301 acre, including a 5-foot wide low flow channel that meanders along the creek bottom, and approximately 0.450 acre of low flood terraces adjacent to the creek banks. The total footprint of the realigned Americano Creek channel and floodplain terraces will be approximately 1.84 acres.

2.1 LONG-TERM GOAL

The long-term goal of the realignment of Americano Creek is to *replace the currently impacted stretch of Americano Creek and to provide riparian and seasonal wetland habitat to replace the function of Americano Creek, seasonal wetland, freshwater seep and riparian habitat that will be affected by the Project*.

Americano Creek currently supports a small narrow riparian corridor along the southeastern bank of the channel on the Project Site due to the presence of Roblar Road, which forms the opposite bank of the creek. Realigning the creek channel will allow the establishment of a riparian corridor along both sides of the realigned creek and it will move the creek channel away from direct influence of road maintenance and other related activities that occur along this section of Roblar Road.

Realigned Americano Creek will provide suitable areas for the development of seasonal wetland habitat along the channel bottom and in the flood terraces that will be created adjacent to the realigned channel. The realigned channel and associated areas will be fenced off to prevent animal grazing, so the vegetation cover in the flood plain terraces should develop within three to five years.

2.2 AQUATIC FUNCTION

Realignment of the Americano Creek will move the length of the existing channel that is adjacent to Roblar Road onto the adjacent fallow fields, part of which is used for short-term grazing. The existing riparian habitat adjacent to the south side of the creek will remain, and the riparian corridor is expected to expand into the area between the existing corridor along the southeasterly side of the creek and the realigned creek.

The expansion of the riparian corridor in this area will be facilitated by removal of grazing and supplemental planting of willows. The result will be an expanded riparian corridor that will substantially improve the habitat suitability of the riparian corridor along the north side of the Project Site. Riparian habitat will also be established along both banks of the realigned creek channel, which will further improve the habitat suitability of the riparian areas along Americano Creek at the Project Site.

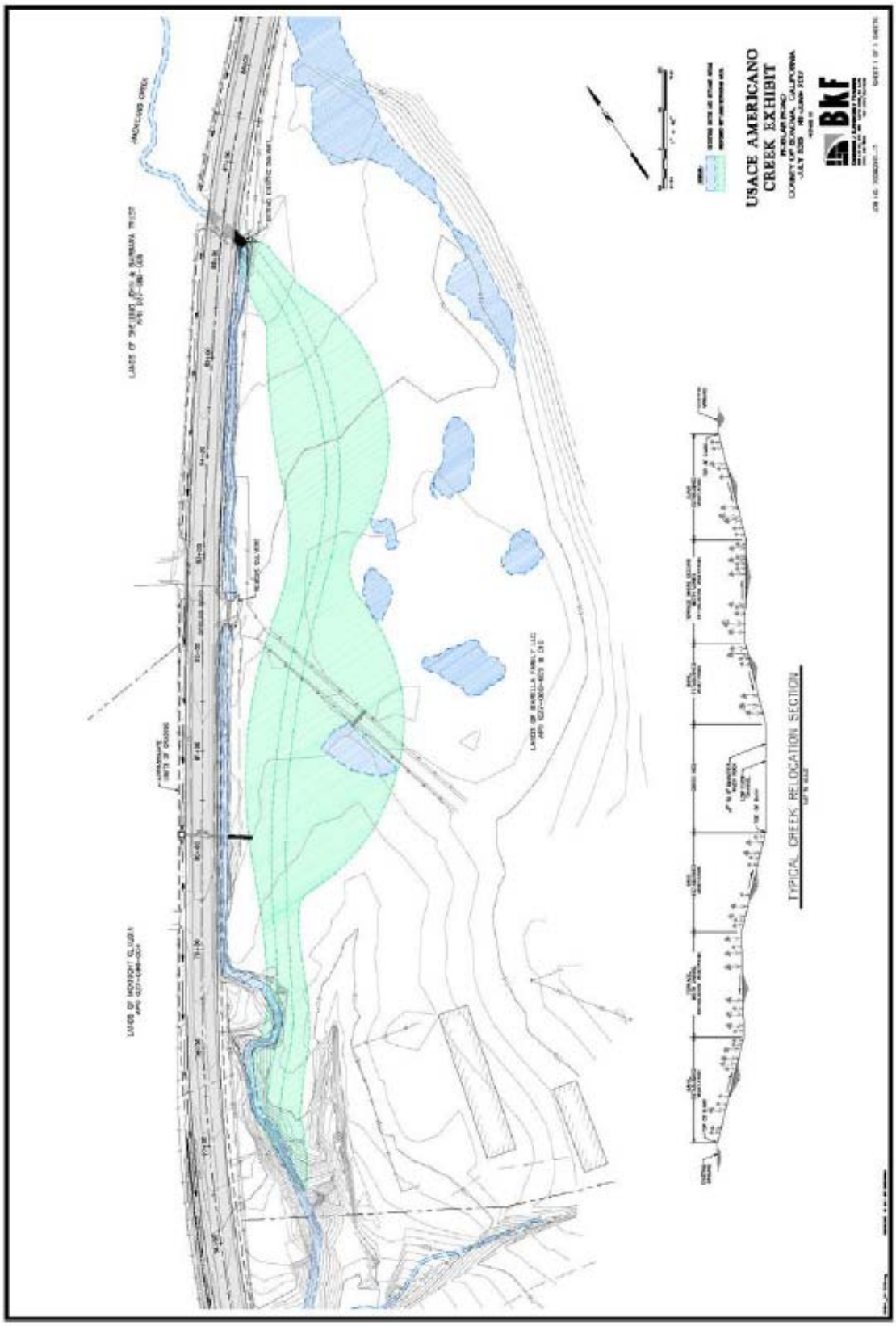


Figure 1. Conceptual plan of realigned Americano Creek.

Seasonal wetland habitat developed on the flood plain terraces will supplement the seasonal wetlands currently on the lands adjacent to the location of the realigned channel. Seasonal wetland habitat is also expected to develop along the channel bottom of the realigned creek.

The realigned creek is expected to provide improved habitat for amphibians that currently use Americano Creek along edge of the Project Site, including the western pond turtle and possibly the California red-legged frog. The expanded riparian corridor will provide improved nesting and foraging habitat for migratory birds that commonly occur in riparian habitats.

2.2 HYDROLOGY

The hydrology of the tributary watershed was assessed using publicly available topographic information and the Sonoma County Water Agency (SCWA) Flood Control Design Criteria Manual. The SCWA publication outlines design procedures for determination of runoff coefficients, average seasonal precipitation, time of concentration, rainfall intensity, and design flows.

The creek realignment has been designed with a 14-foot-wide bed width, 2.5:1 or flatter side slopes, and a centerline radius greater than or equal to three times the total top width of the channel.

This section of Americano Creek is designated as a Secondary Waterway, defined as having a drainage area of between one and four-square miles. The creek channel has been designed to carry the 25-year storm flow with 1.5-feet of freeboard from the top of bank, and to contain the 100-year storm flow within the channel. The new creek channel cross-section has been designed to incorporate terraces to receive and capture seasonal flows. The terrace benches are located above the creek bed so that they become submerged during a storm with a one-year recurrence interval.

Areas of increased hydraulic stress along the realigned channel will be lined with soil-filled rock-slope protection to allow for planting, and the channel bottom will be lined with river rock. The channel banks and terraces will be vegetated to discourage erosion. Sinuosity will be added to increase the length of the channel. While some sinuosity has been added by incorporating the terraces, a low flow channel will meander across the creek bed providing an increased flow length. The new creek alignment will tie back into the existing creek channel near the western side of the Project Site where the creek is separated from Roblar Road.

2.3 VEGETATION

The realigned Americano Creek channel will be planted with a combination of willows (*Salix* ssp.) and emergent wetland plants. The slopes of the realigned creek bank will be planted with a combination of red willow and arroyo willow. Arroyo willow will be planted as cuttings or longer poles, depending on the location where the willows will be planted.

The cuttings or poles will be collected from nearby trees along Americano Creek and Ranch Tributary. Red willow will be planted along the top of the banks and between the realigned creek channel and the existing creek channel. If stands of Pacific willow (*Salix lasiandra*) are located along accessible sections of Americano Creek in the area of the Project Site, this species will also be planted along realigned Americano Creek and between the realigned creek and the existing creek.

Other species of trees and shrubs that will be planted in the area between the realigned creek channel and the existing riparian corridor along the existing Americano Creek include California bay (*Umbellularia californica*), wood rose (*Rosa gymnocarpa*) and California rose (*Rosa californica*) and native blackberry (*Rubus ursinus*).

A mixture of seeds and/or plugs of native grasses and forbs will be applied to the terraces, and the channel bed following the initial flow events after construction of the realigned channel. To the extent feasible, propagules, either seeds or plugs, will be collected from the Project Site and used to vegetate the realigned creek. The species of plants to be established at the realigned creek will be based on the availability of seeds or plugs. Following is a list of possible species of native grasses, herbaceous plants, and rushes and sedges that may be planted along the realigned Americano Creek and where along the realigned creek they will be planted.

Table 1. List of potential plants to be established at the realigned Americano Creek and planting locations.

Scientific Name Common Name	Channel	Flood Plain Terraces	Edge of Flood Plain Terraces
Grass Species			
Bromus carinatus California brome			✓
Deschampsia caespitosa *tufted hairgrass*			✓
Deschanpsia danthonoides annual hairgrass			✓
Elymus glaucus blue wildrye			✓
Elymus triticoides creeping wildrye		✓	✓
Hordeum brachyantherum meadow barley		✓	✓
Herbaceous Species			
Epilobium ciliatum fringed willowheb		✓	✓
Lasthenia glaberrima smooth goldfields		✓	
Limnanthes douglasii Douglas meadowfoam		✓	
Persicaria lapathifolia common knotweed	✓		
Potentilla anserine silverweed			✓
Ranunculus orthorhynchus straight beaked buttercup		✓	✓
Rorippa curvisiliqua curvepod yellowcress	✓		
Trifolium variegatum *white*-tipped clover		✓	✓
Rushes and Sedges			
Carex densa dense sedge	✓	✓	
Carex pansa California meadow sedge	✓	✓	
Cyperus eragrostis tall flatsedge	✓	✓	
Eleocharis macrostachya spike rush	✓	✓	
Juncus balticus toad rush		✓	
Juncus effuses common bog rush	✓	✓	
Juncus patens common rush	✓	✓	
Juncus phaeocephalus brown headed rush		✓	
Sisyrinchium bellum blue-eyed grass			✓

3.0 IMPLEMENTATION PLAN

3.1 SITE PREPARATION

3.1.1 Realigned Americano Creek Channel

The realignment of Americano Creek will occur during construction of the initial phase of the Project. Americano Creek will be realigned in the low area adjacent to the existing location of the creek. Prior to construction of the new channel the boundary of the construction impact area will be fenced to avoid impacts to the seasonal wetlands that occur in the vicinity of the northeastern end of the realigned creek channel where Americano Creek crosses beneath Roblar Road and onto the Project Site.

3.1.2 Avoidance Measures

The area of disturbance associated with construction and operation of the Project will be kept to a minimum and the sensitive areas outside the Project impact footprint will be cordoned off using stakes and construction fencing to prevent inadvertent impacts to the avoided areas. The staking and fencing will be installed between the edge of the realigned Americano Creek boundary closest to the seasonal wetlands where the creek enters onto the Project Site and between the edge of the footprint of the realigned creek and the existing riparian area along the creek.

3.1.3 Invasive Plant Removal

Thick Himalayan blackberry shrubs occur along much of the existing Americano Creek riparian corridor along the Project Site. The extensive stands of blackberry shrubs along this stretch will be cut to ground level prior to planting of willows. Any native blackberry shrubs encountered along the existing riparian corridor will be left in place.

3.2 PLANTING/SEEDING

3.2.1 Tree and Shrub Plantings

A combination of red willow, Pacific willow and arroyo willow will be planted as cuttings along the realigned Americano Creek channel. Arroyo willow and Pacific willow, which have both tree and shrub growth forms, will be established along the lower part of the channel banks. Red willow, which has a tree growth form, will be planted along the top of the bank, and between the realign channel and the riparian corridor along the southeastern side of Americano Creek along with scattered individuals of Pacific willow and arroyo willow.

Other species of trees and shrubs will be planted in the area between the realigned creek channel and the existing riparian corridor along the existing Americano Creek, include California bay, wood rose and California rose, and native blackberry.

Arroyo Willow. Arroyo willow cuttings will be installed along the bottom of the bank of the realigned Americano Creek along with scattered cuttings of Pacific willows. The cuttings will be collected from live trees along Americano Creek and Ranch Tributary. The cuttings will be at least one to two inches in diameter and at least four feet long. The cuttings will be planted on three- to five-foot centers along the bottom two feet of the channel bank depending on the ability to penetrate through the rock to the underlying soil.

Red Willow and Pacific Willow. Red willow and Pacific willow cuttings will be installed along the top of the bank of the realigned creek channel and between the realigned creek channel and the riparian corridor along the existing Americano Creek channel. The cuttings will be collected from live trees along Americano Creek and Ranch Tributary. The cuttings will be at least one inch in diameter and at least five feet long. The cuttings will be planted on approximately five-foot centers through the rock in a single row parallel to the channel along the top of the bank. The plants between the realigned creek channel and the riparian corridor along the existing Americano Creek channel will be planted on in a haphazard pattern with at least five feet between each installed cutting.

Other Trees and Shrubs. California bay will be grown as container plants at a native plant nursery and planted at the site before they are one-year old, [2] to the extent possible. A minimum of 25 California bay plants will be planted at scattered locations throughout the planting area between the realigned creek channel and the riparian corridor along the existing American Creek channel.

California rose and native blackberry will be planted as container plants grown at a native plant nursery. A minimum of 30 plants of each species will be planted at scattered locations between the planted willow cuttings in the area between the realigned channel and the riparian corridor along the existing Americano Creek channel. The plantings of native blackberry plants will be focused on the area nearest the riparian corridor along the existing channel, and California rose plants will be distributed throughout the planting area between the realigned channel and the existing Americano Creek channel.

3.2.2 Seasonal Wetlands

A mixture of seeds of native grasses and herbaceous vegetation will be applied to the terraces, and to the channel bed following the initial flow events following construction of the realigned channel (Table 1). Grasses will be established using seeds from local sources. Rushes will be collected from onsite sources that will be impacted by the Project and transplanted to the realigned channel as plugs, supplemented by plugs from plugs grown in a nursery from local sources of seeds. Sedges will be planted as plugs grown at a nursery using local sources of seeds.

[2] Recommendation from California Laurel Planting Guide from the USDA NRCS National Plant Data Center.

3.3 IRRIGATION

The area where the willows, California bay, wood rose and California rose, and native blackberry will be planted should not require irrigation due to the seasonally high groundwater table in the area. Should irrigation be deemed necessary during the initial year following planting, the planted California bay and two shrub species will be hand watered or irrigated with an above-ground temporary drip system, which will be designed by the installation contractor to operate for a minimum of two years.

Irrigation system operation would begin in the April and continue through October. If a low rainfall year occurs in the second year following plant installation, a third year of irrigation may be necessary. Approximately one to two gallons of water would be applied directly into the planting collar around each plant during each irrigation period.

4.0 MAINTENANCE PLAN

4.1 MAINTENANCE ACTIVITIES

The data from the monitoring program during the interim period between completion of the mitigation actions and attainment of the performance criteria will be used to adaptively manage the mitigation sites. The data will be evaluated annually to see if expected progress is being made toward the achieving the performance criteria, and actions implemented if satisfactory progress is not being made or if conditions are observed that require corrective actions to maintain the integrity of the mitigation sites.

4.1.1 Riparian

The protective hardware installed to protect the planted trees and shrubs during the initial period of establishment will be maintained on a regular basis and repaired immediately to prevent damage from browsing wildlife. The protective screens will be opened during the later portion of the first growing season to allow the plant to grow beyond the confines of the screen enclosure. Open screens shall appear as an open cylinder to provide continued browse protection to the lower portion of the plant. Screens/collars, Tubex, and weed control fabric shall remain in place for three to five years following plant installation.

The area around each of the planted trees and shrubs will be kept clear of herbaceous and invasive plants during the first three years following planting. Weeding will occur in the late spring and thereafter on an as-needed basis. The temporary irrigation system will be evaluated each spring to make sure it is functioning properly and repaired as needed.

4.1.2 Seasonal Wetlands

The primary maintenance activity for the seasonal wetlands established in the flood terraces will be the removal of invasive plants considered to be a threat to the establishment of seasonal wetland vegetation, including Himalayan blackberry, cocklebur and various thistles. Debris within the main channel that may affect willow planting will be removed each spring following the major flow events.