STAGECOACH NORTH VINEYARD CONVERSION EROSION CONTROL PLAN APPLICATION #P18-00446-ECPA

Final Environmental Impact Report State Clearinghouse #2019100250

Prepared for Napa County November 2022







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Prepared for November 2022 Napa County Department of Planning, Building and Environmental Services 1195 Third Street, Suite 210 Napa, CA 94559



ESA

2600 Capitol Avenue Suite 200 Sacramento, CA 95816 916.564.4500 www.esassoc.com

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ACRONYMS AND OTHER ABBREVIATIONS

Acronym or Abbreviation Definition

AF	acre-feet
AF/year	acre-feet per year
BAAQMD	Bay Area Air Quality Management District
C	carbon
CAC	Climate Action Committee
CAP	Climate Action Plan
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO ₂ e	carbon dioxide-equivalent
County	Napa County
Draft EIR	Draft Environmental Impact Report
EAP	Emergency Action Plan
ECP	Erosion Control Plan
ECPA	Erosion Control Plan Application
EIR	Environmental Impact Report
EO	Executive Order
GHG	greenhouse gas
GIS	geographic information system
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
IS	Initial Study
MMRP	Mitigation Monitoring and Reporting Program
MT	metric ton(s)
N ₂ O	nitrous oxide
NCC	Napa County Code
NOP	Notice of Preparation
NO _X	oxides of nitrogen
PBES	Planning, Building and Environmental Services Department
PM	particulate matter
proposed project	Stagecoach North Vineyard Conversion Erosion Control Plan Application Project (#P18-00446-ECPA)
State CEQA Guidelines	California Environmental Quality Act Guidelines
TIS	Transportation Impact Study
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
WY	Water Year

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CHAPTER 1 INTRODUCTION AND LIST OF COMMENTERS

1.1 PURPOSE OF THIS DOCUMENT

This Final Environmental Impact Report (EIR) has been prepared for the Stagecoach North Vineyard Conversion Erosion Control Plan Application Project (#P18-00446-ECPA) (proposed project) in accordance with the California Environmental Quality Act (CEQA). This FEIR and the Draft Environmental Impact Report (Draft EIR) (February 2021; State Clearinghouse #2019100250) and Draft EIR appendices, taken together, constitute the EIR for the proposed project that the Napa County (County) Planning, Building and Environmental Services Department will review and consider when it decides whether to approve the project.

Written comments on the Draft EIR were received by the County during the public comment period, which extended from February 12, 2021, through March 29, 2021.

This document includes all comments received on the Draft EIR from agencies and the public and presents a written response to each comment. Also included are changes to the text of the Draft EIR, either in response to the written comments or initiated by County staff. The responses and text changes correct, clarify, and amplify text in the Draft EIR, as appropriate. These changes do not alter the conclusions of the Draft EIR.

The Stagecoach North Vineyard Conversion Erosion Control Plan Application Project (#P18-00446-ECPA) Draft EIR and related documents can be found on Napa County's website:

https://pbes.cloud/index.php/s/PNR3tG2ZbxbgYwp

The County is also using this opportunity to acknowledge that in March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater well in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the Groundwater Sustainability Agency (GSA) managing the basin that groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable Groundwater Sustainability Plan (GSP) and would not decrease the likelihood of achieving sustainability goals for the basin covered by a GSP, or that the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure. Because this project relies on existing wells, it is not subject to the Executive Order and the Section 9b findings.

1.2 SUMMARY OF THE PROPOSED PROJECT

The project as originally proposed and described in Draft EIR Chapter 2, *Project Description*, and Draft EIR Appendix A includes vegetation removal and earthmoving activities on slopes greater than 5 percent in connection with the development of 91.3 net acres of vineyard within 116.2 gross acres, on a 170.2-acre project site.

Proposed vineyard development activities include removing brush and trees within the proposed clearing limits, ripping, removing rocks, blasting, cultivating the soil, seeding a cover crop, mulching, trenching for storm drain and irrigation pipelines, installing a trellis system and wildlife exclusion fence, and laying out vine rows. In addition, temporary and permanent erosion control measures would be installed.

Vineyard development would take place between April 1 and September 15. The project area would be winterized by September 15. Temporary erosion control measures could include installing water bars, straw wattles, and straw bale dikes and following other practices as needed. Permanent erosion and runoff control measures described in the Erosion Control Plan (PPI Engineering 2019; Draft EIR Appendix A) include:

- Five detention basins constructed in the development area to attenuate small increases in runoff associated with vineyard development:
 - Detention Basin #1 in the northwest corner of Block Y16.
 - Detention Basin #2 in the southwest corner of Block Y16.
 - Detention Basins #3 and #4 on the south side of Block Y16.
 - Detention Basin #5 north of Blocks V3 and V4.
- A permanent cover crop seeded with vegetative cover maintained according to the Erosion Control Plan.
- Surface drainage pipelines installed to collect surface runoff at low points throughout the development area and transport it to protected outlets.
- Cutoff collars installed on all solid pipelines with slopes steeper than 5 percent.
- Standard drop inlets and concrete drop inlets installed at designated locations in the development area.
- Diversion ditches constructed to convey surface water through and/or around proposed vineyard areas and direct it to a stable outlet or drop inlet.
- Diversion avenues constructed to reduce slope run length and intercept runoff throughout the vineyard while directing it to a stable outlet.
- Rock level spreaders installed in designated locations at the outfall of conveyance infrastructure to uniformly spread water onto the ground surface.

- Rock-filled avenues constructed to dispose of rock generated onsite, allow safer turning by equipment, and disperse and filter runoff.
- Rock energy dissipaters constructed to help disperse concentrated flow.
- Rolling dips installed in designated locations in the development area to direct water off the roadway surface and back onto the native ground surface. These designated locations include areas where the existing road runs uphill and the potential exists for runoff to run down the roadway surface and cause erosion or gullying, or areas where rolling dips are needed to ensure that roads are hydrologically disconnected from receiving waters.
- Three new rocked water crossings over waters of the United States installed in designated locations in the development area, to be used for vineyard access during low-flow or dry conditions. Other rocked water crossings proposed in the Erosion Control Plan would cross proposed ditches, and therefore would not affect waters of the United States.
- One existing undersized culvert upgraded to a larger diameter culvert (48 inches) to minimize the potential for plugging and other issues that could be caused by an undersized culvert.
- Outsloped infield level spreader constructed to prevent surface flows from becoming concentrated through the vineyard areas.

The project site is also located within the County-designated Rector Reservoir Sensitive Domestic Water Supply Drainage. Napa County Code Chapter 19.108.027, Sensitive Domestic Water Supply Drainages, outlines provisions applicable to such designated drainages, including vegetation clearing limits and winter shutdown requirements.

1.3 PROJECT ACTIONS

Adoption of the proposed project is anticipated to include, but may not be limited to, the following Napa County actions:

- Certification of the EIR to determine that the EIR was completed in compliance with the requirements of CEQA, that the decision-making body has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of Napa County.
- Adoption of a Mitigation Monitoring and Reporting Program, which specifies the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment.
- Adoption of Findings of Fact.

1.4 ORGANIZATION OF THE FINAL EIR

The Final EIR is organized as follows:

Chapter 1, *Introduction and List of Commenters*: This chapter summarizes the project under consideration and describes the contents of the Final EIR. This chapter also contains a list of all agencies or persons who submitted comments on the Draft EIR during the public review period, presented in order by agency, organization, or individual, and date received.

Chapter 2, *Revisions to the Draft EIR*: This chapter summarizes text changes made to the Draft EIR in response to comments made on the Draft EIR. Changes to the text of the Draft EIR are shown by either strikethrough where text has been deleted, or <u>double underline</u> where new text has been inserted.

Chapter 3, *Comments and Responses*: This chapter contains the comment letters received on the Draft EIR, followed by responses to individual comments. Each comment letter is presented with brackets that indicate how the letter has been divided into individual comments. Each comment is given a binomial with the number of the comment letter appearing first, followed by the comment number. For example, comments in Letter S1 are numbered S1-1, S1-2, S1-3, and so on. Immediately following the letter are responses, each with binomials that correspond to the bracketed comments.

If the subject matter of one letter overlaps that of another letter, the reader may be referred to more than one group of comments and responses to review all information on a given subject. Where this occurs, cross-references to other comments are provided.

Some comments that were submitted to the County do not pertain to substantial environmental issues or do not address the adequacy of the analysis contained in the Draft EIR. Responses to such comments, though not required, are included to provide additional information. When a comment does not directly pertain to environmental issues analyzed in the Draft EIR, does not ask a question about the adequacy of the analysis in the Draft EIR, expresses an opinion related to the merits of the proposed project, or does not question an element of or conclusion of the Draft EIR, the response notes the comment and may provide additional information where appropriate. Some comments express opinions about the merits or specific aspects of the proposed project; these are included in the Final EIR for consideration by the decision makers.

Chapter 4, *Mitigation Monitoring and Reporting Program*: This chapter contains the Mitigation Monitoring and Reporting Program to guide the County in its implementation and monitoring of measures adopted in the EIR, and to comply with the requirements of Public Resources Code Section 21081.6(a).

Chapter 5, References Cited: This chapter identifies the references cited in this Final EIR.

1.5 PUBLIC PARTICIPATION AND REVIEW

Napa County has complied with all noticing and public review requirements of CEQA. This compliance included notifying all responsible and trustee agencies and interested groups, organizations, and individuals that the Draft EIR was available for review. The following actions took place during the preparation, distribution, and review of the Draft EIR:

- A Notice of Preparation (NOP) for the EIR and an Initial Study (IS) were filed with the State Clearinghouse on October 14, 2019. The official 30-day public review comment period for the NOP ended on November 12, 2019 (State Clearinghouse #2019100250). The NOP/IS was distributed to federal, state, and local agencies, organizations, adjacent property owners within 1,000 feet of the project site, and to other interested parties. The NOP was also published on Napa County's website, and was filed at the County Clerk's office.
- A Notice of Completion and copy of the Draft EIR were filed with the State Clearinghouse on February 12, 2021. The 45-day public review period for the Draft EIR was February 12, 2021, through March 29, 2021. A Notice of Availability for the Draft EIR was sent to federal, state, and local agencies, organizations, adjacent property owners within 1,000 feet of the project site, and other interested parties on February 12, 2021. The Draft EIR was also published on the County's website at https://pbes.cloud/index.php/s/PNR3tG2ZbxbgYwp.
- Paper copies of the Draft EIR were available for review at the following locations:

Napa County Department of Planning, Building and Environmental Services 1195 Third Street, 2nd Floor Napa, CA 94559

Napa County Main Library 580 Coombs Street Napa, CA 94559

1.6 CEQA CERTIFICATION AND PROJECT APPROVAL

Pursuant to State CEQA Guidelines Section 15090(a), before Napa County makes a decision regarding the proposed project, the County must first certify that the EIR has been completed in compliance with CEQA, that the County has reviewed and considered the information in the EIR, and that the EIR reflects the County's independent judgment and analysis.

In the event Napa County approves the proposed project, CEQA requires that it file a Notice of Determination and adopt appropriate findings as set forth in State CEQA Guidelines Section 15091. Under State CEQA Guidelines Section 15092, a lead agency may only approve or carry out a project subject to an EIR if it determines that: (1) the project will not have a significant effect, or (2) the agency has eliminated or substantially lessened all significant effects on the

environment where feasible, and any remaining significant effects on the environment that are found to be unavoidable are acceptable due to overriding considerations.

1.7 LIST OF COMMENTERS

Napa County received 13 comment letters during the comment period for the Draft EIR for the proposed project. Table 1-1 indicates the letter type (e.g., state agency, organization/company, or individual) and numerical designation for each comment letter, the author of the comment letter, and the date of the comment letter.

DRAFT ENVIRONMENTAL IMPACT REPORT				
Letter #	Entity	Author(s) of Comment Letter	Date of Comment Letter	
State Agen	State Agencies			
S1	California Department of Veterans Affairs, Veterans Home of California, Yountville, Rector Reservoir	Donald Callison, Research Analyst II	March 22, 2021	
S2	California Department of Fish and Wildlife, Bay Delta Region	Gregg Erickson, Regional Manager	March 25, 2021	
Organizatio	ons/Companies			
01	Center for Biological Diversity	Ross Middlemiss, Staff Attorney	March 29, 2021	
02	PPI Engineering	Adrienne Edwards, PhD	March 29, 2021	
O3	PPI Engineering	James R. Bushey, P.E., President, and Annalee Sanborn, Project Manager	March 29, 2021	
O4	Richard C. Slade & Associates LLC	Anthony Hicke, CHG	March 29, 2021	
O5	E&J Gallo Winery	Jake Bricker, Engineering Manager	March 29, 2021	
O6	Linda Falls Alliance	Kellie Anderson	March 29, 2021	
Individuals				
11		Steve Chilton	March 27, 2021	
12		Barbara Guggia	March 28, 2021	
13		Amber Manfree, PhD	March 29, 2021	
14		Bill Hocker	March 29, 2021	
15		Shelley Wolfe	March 30, 2021	

 TABLE 1-1

 COMMENT LETTERS REGARDING THE STAGECOACH NORTH VINEYARD CONVERSION #18-00446-ECPA

 DRAFT ENVIRONMENTAL IMPACT REPORT

Source: Data compiled by Environmental Science Associates in 2021

CHAPTER 2 REVISIONS TO THE DRAFT EIR

2.1 INTRODUCTION

This chapter describes changes made to the proposed project since publication of the Draft EIR, as well as text changes made to the Draft EIR initiated by Napa County staff in response to a comment letter. Based on Draft EIR comments received from the Applicant's engineer (Letter O3) and the Applicant (Letter O5), the approximately 0.38-acre Detention Basin #2 in Block Y16 that was removed in the Draft EIR with mitigation and in the project alternatives is being retained with the addition of the enhanced area acreage in the same habitat type; no overall change to the mitigated project acreage, acreage of the project alternatives, or habitats affected would occur with this revision.

Under CEQA, recirculation of all or part of an EIR may be required if significant new information is added after public review and prior to certification. According to State CEQA Guidelines Section 15088.5(a), new information is not considered significant "unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." More specifically, the State CEQA Guidelines define "significant new information" as including a disclosure showing that:

- A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- A feasible project alternative or mitigation measure considerably different from those others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
- The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The text changes described below update, refine, clarify, and amplify the project information and analyses presented in the Draft EIR. In some cases, the text changes reflect new regulatory requirements that became effective since April 2022. No new significant impacts are identified, and no information is provided that would involve a substantial increase in the severity of a significant impact that would not be mitigated by measures agreed to by Napa County. In

addition, no new or considerably different Napa County alternatives or mitigation measures have been identified. Finally, there are no changes or set of changes that would reflect fundamental inadequacies in the Draft EIR. Recirculation of any part of the Draft EIR therefore is not required.

2.2 TEXT CHANGES TO THE DRAFT EIR

This section summarizes text changes made to the Draft EIR in response to a comment letter as initiated by Napa County staff. New text is indicated in <u>double underline</u> and text to be deleted is reflected by strike through. Text changes are presented in the page order in which they appear in the Draft EIR.

The text changes provide clarification, amplification, and corrections that have been identified since publication of the Draft EIR. The text changes do not result in a change in the analysis or conclusions of the Draft EIR.

EXECUTIVE SUMMARY

Page ES-4, the first sentence of the second bullet is revised to read:

The Increased Preservation Area Alternative would involve the development of approximately 64.46 net acres of vineyard within an approximately <u>84.56</u>84.18-acre cleared area. This alternative would include the <u>79.379.68</u>-acre Preservation Area discussed in **Section 3.3**, *Biological Resources*, with implementation of Mitigation Measures 3.3-1a through 3.3-1i, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, supplemented by avoidance of an additional 6.31 acres of biological communities identified in and near proposed vineyard Blocks V2, V3, V4, V6, W8, X12, Z17, and Z20.

Page ES-4, the first sentence of the third bullet is revised to read:

The Increased Watercourse Setbacks Alternative would involve the development of approximately 63.36 net acres of vineyard within an approximately <u>84.64</u>84.26-acre cleared area. This alternative would include the <u>79.3</u>79.68-acre Preservation Area discussed in **Section 3.3**, *Biological Resources*, with implementation of Mitigation Measures 3.3-1a through 3.3-1i, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, supplemented by avoidance of an additional 6.21 acres of biological communities identified in and near proposed vineyard Blocks V1, V2, V3, V4, V6, W8, X11, X12, Y4, Y15, Z17, Z18, and Z20.

Page ES-5, last paragraph, the link to the Napa County website was updated to read:

The Draft EIR is available for review online on Napa County's website at:

https://pbes.cloud/index.php/s/PNR3tG2ZbxbgYwp

https://pbes.cloud/index.php/s/emaii8HkexDbyJM

Page ES-7, Impact 3.2-1, Mitigation Measure 3.2-1a in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.2-1: Construction and operation of the proposed project could conflict with or obstruct implementation of BAAQMD's 2017 Clean Air Plan.	Mitigation Measure 3.2-1a (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): <u>Implement Mitigation Measures 3.3-1a through</u> <u>3.3-1j</u> , 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3, <u>Biological Resources</u> . All construction equipment used in project construction shall meet Tier 4 Final standards to reduce emissions of NO _X . Before initiation of the project, and annually thereafter until vineyard construction activities are complete, the permittee shall provide Napa County with a "Project Construction Equipment List" documenting compliance with this mitigation measure. The owner/permittee shall also maintain a Horsepower Hour Log of the monthly horsepower hours of construction equipment, and shall provide such logs at the County's request, to further document compliance. Enforcement of this mitigation measure will follow and be consistent with the Conservation Regulations (Napa County Code Section 18.108.140, Security, Violations, and Penalties).

Page ES-8, Impact 3.3-1, Mitigation Measure 3.3-1a in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation Measure 3.3-1a (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): In order to mitigate impacts to special-status plants resulting from development of the proposed project, the Applicant shall place in permanent protection a A Preservation Area (Figure 3.3-6 of the Draft EIR) of no less than 79.3 totaling a minimum of 70.68 acres of equal or greater habitat value than the locations of the special-status plants impacted by the proposed project, as determined by a qualified professional knowledgeable and experienced in the local botany and habitats with the potential to occur at the project site. shall be All acreage designated for preservation shall be identified as such in a mitigation easement, with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection acceptable to Napa County. The mitigation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any earth disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first. In no case shall earthmoving activities be initiated until said mitigation easement is recorded.
	Any request by the Applicant for an extension of time to record the mitigation easement shall be considered by the Planning, Building and Environmental Services Department (PBES) Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension. The land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should be otherwise restricted by the existing goals and policies of Napa County with the exception that access to and use, Maintenance, and repair of the two existing groundwater supply wells within the project site (shown on Figure 1 in Draft EIR Appendix J, Water Availability Analysis) are allowed, and should be otherwise restricted by the existing goals and policies of Napa County.
	Erosion Control Plan #P18-00446-ECPA shall be revised before approval to increase the Preservation Area to <u>a minimum of 79.3</u> 79.68 acres, consistent with the modified block configurations detailed in Figure 3.3-6. The owner/permittee shall record the mitigation easement within 60 days of approval of Erosion Control Plan Application (ECPA) #P18-00446-ECPA by the County; however, in no case shall the ECPA be initiated until said mitigation easement is recorded.
	With respect to the 79.3 acres of special-status species and habitat protected under Mitigation Measures 3.3-1b, 3.3-1d, 3.3-1f, and 3.3-1h, the Applicant shall provide an endowment to the accredited land trust that is sufficient to ensure that the mitigation easement is monitored, enforced, and defended in perpetuity. The amount of the endowment shall be calculated using the Center for Natural Land Management's Property Analysis Record software, or an equivalent methodology if preferred by the land trust and accepted by the Land Trust Alliance, which provides the systematic and objective determination of the amount of the endowment in light of the conservation values to be protected by the easement. The record showing how the amount of the endowment was calculated shall be provided to County Counsel as part of its review of the

Resource Topic and Impact	Mitigation Measure
	mitigation easement. Any county staff time spent assessing and monitoring said provision shall be charged to the permittee, at the rate in effect at the time assessment and monitoring occurs, pursuant to County Fee Policy Part 80.
	In accordance with Napa County Code Section 18.108.100 (Erosion Hazard Areas – Vegetation Preservation and Replacement), any special status plants or populations inadvertently removed as part of the development authorized under #P18-00446 ECPA shall be replaced onsite at a ratio of 2:1 at locations with similar habitat, as approved by the planning director. A mitigation plan shall be prepared. At a minimum, the mitigation plan shall identify the locations where the plants will be planted in suitable habitat on the project parcel, the success criteria, and monitoring activities for the populations. The mitigation plan shall be finalized before planting and the start of construction activities. Any replaced special status plants shall be monitored for at least three years to ensure
	an 80 percent survival rate.

Page ES-9, Impact 3.3-1, Mitigation Measure 3.3-1b in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation Measure 3.3-1b (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): The owner/permittee shall replace the 1,595 holly-leaved ceanothus affected by the project at a 1.2:11 ratio (mitigated:affected). Therefore, this would result in the replacement of 1,914 holly-leaved ceanothus. This shall be accomplished by one of four options, or a combination thereof, to produce the 1,914 transplants to satisfy the required mitigation for this species: (1) assisted seedling recruitment in replanting areas; (2) propagating seeds from shrubs located within the adjacent Stagecoach property; (3) propagating cuttings from shrubs from the adjacent Stagecoach property, and/or (4) transplanting young seedlings from the development areas into pots for later transplantation. The techniques for each of these options shall be discussed in detail in the Holly-leaved Ceanothus Mitigation and Monitoring Plan. propagating plants from seeds obtained from the plants on the project site or transplanting newly growing seedlings from the development area to the Preservation Area. Growing from seed is the preferred technique because it captures more of the genetic diversity present in the species at a given location. Seed collection shall be conducted by experienced native plant propagators from local native plant nurseries with experience in propagating native ceanothus. Propagation will include specific techniques to avoid introducing plant pathogens into the preserved area. After seedlings have been established in the nursery (generally 1 year), they shall be replanted in suitable areas in the onsite Preservation Area. The loss of 1,595 holly-leaved ceanothus would require a minimum planting/cutting/transplanting of 1,914 plants to achieve the 1.2:1 ratio. To establish 1,914 plants, about 46 To replace approximately 1,595 holly leaved ceanothus, about 38 individuals per acre shall be planted in a </td
	42-acre portion of the Preservation Area containing chamise alliance, mixed manzanita, and scrub interior live oak (Figure 3.3-6). If it is not feasible to <u>plant 1,914</u> replace 1,595 holly-leaved ceanothus in the Preservation Area, suitable areas on adjacent lands may need to be <u>utilized</u> used, at the discretion of Napa County.
	Before the start of vegetation clearing and earth-disturbing activities on the project site, a qualified botanist/ biologist shall prepare a detailed <u>Holly-leaved Ceanothus Mitigation and Monitoring Plan</u> mitigation and monitoring plan for holly leaved ceanothus for review and <u>written</u> approval by the County. The Holly-leaved Ceanothus Mitigation and Monitoring Plan by the County. The Holly-leaved Ceanothus Mitigation and Monitoring Plan by the County. The Holly-leaved Ceanothus Mitigation and Monitoring Plan shall document collaboration with CDFW on plan preparation. The plan shall include details on the four replacement options identified above. In addition, the plan shall include, but not be limited to: (1) an onsite habitat enhancement and planting plan, and offsite plantings, at the discretion of the County, if there is not enough suitable habitat within the proposed Preservation Area on the property to support a 1.2:1 ratio of individual plants planted to individual plants removed for preennial plants; (2) the success criteria with a minimum 80 percent survival rate; (3) a minimum of 5 years of monitoring activities for the populations; and (4) control of invasive species and any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a mitigation easement with the same requirements as outlined in Mitigation Measure 3.3-1a. collection and propagation of seeds, techniques to avoid introducing plant pathogens to the replanting area, and preparation of the area for planting; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.
	After replanting, the replanting area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall

Resource Topic and Impact	Mitigation Measure
	be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.
	If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by negotiated with</u> the County shall be designated to fund the mitigation and monitoring effort, which shall be included in the endowment identified in Mitigation Measure 3.3-1a.

Page ES-9, Impact 3.3-1, Mitigation Measure 3.3-1d in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation Measure 3.3-1d (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): To avoid impacts on the narrow-flowered California brodiaea to be retained located outside the project area, the clearing limits shall be clearly and accurately flagged by an engineer using GPS equipment. The narrow-flowered California brodiaea to be retained adjacent to the clearing limits and roadways shall be demarcated with construction flagging/fencing. The precise locations of these fences shall be inspected and approved by Napa County before the start of any earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance area/boundary. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any narrow-flowered California brodiaea plants inadvertently removed that are not located within the approved boundaries or clearing limits of #P18-00446-ECPA shall be replaced on-site at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, location of suitable habitat on the project parcel, the locations of replacement plan shall be implemented before vineyard planting activities. Any replaced plants shall be monitored for at least 5 years to ensure an 80 percent survival rate.

Page ES-10, Impact 3.3-1, Mitigation Measure 3.3-1f in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation Measure 3.3-1f (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): <u>Replacement of two-carpellate western flax</u> plants/populations removed shall be at a minimum 1.2:1 ratio (mitigated:affected) for the approximately 2.472 plants being removed. To mitigate impacts on two-carpellate western flax plants, the top 3 inches of soil shall be removed with hand shovels within all areas where flax individuals would be removed by the proposed development. The soil shall be transported to areas where suitable habitat occurs in the Preservation Area (Figure 3.3-6) and scattered across open areas. The locations where the soil comprising two-carpellate western flax seeds is relocated shall be mapped and their boundaries delineated with flagging_the approximately 2.472 individual plants removed shall be replaced at a minimum 1:1 ratio (mitigated:affected). Replacement seeding and planting shall occur in suitable habitat in the Preservation Area (Figure 3.3-6) from two-carpellate western flax seeds collected from the project site, subject to the Mitigation and Monitoring Plan outlined below.
	Before <u>the start of</u> vegetation clearing <u>and earth-disturbing activities</u> on the project site, a qualified botanist/ biologist shall prepare a detailed <u>Two-carpellate Western Flax</u> Mitigation and Monitoring Plan for two-carpellate western flax for review and <u>written</u> approval by Napa County. <u>The Two-carpellate Western Flax Mitigation and Monitoring Plan shall document collaboration with CDFW</u> on plan preparation. The plan shall include details <u>on flax soil collection and relocation on</u> collection and propagation of seeds, seed spreading and planting of propagated plants, techniques to avoid introducing plant pathogens to the <u>replanting soil relocation</u> area, and preparation of <u>replanting soil relocation</u> areas. <u>In addition, the plan shall include, but not be limited to: (1) an</u> <u>onsite habitat enhancement and planting plan, and offsite plantings, at the discretion of the County, if there is not enough suitable habitat within the proposed Preservation Area on the property to</u>

Resource Topic and Impact	Mitigation Measure
	support a 1.2:1 ratio of individual plants planted to individual plants removed for perennial plants: (2) the success criteria with a minimum 80 percent survival rate; (3) a minimum of 5 years of monitoring activities for the populations; and (4) control of invasive species and any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a mitigation easement with the same requirements as outlined in Mitigation Measure 3.3-1a.; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.
	After replanting relocation of the soil containing flax seed, the soil relocation replanting areas shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.
	If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by</u> negotiated with the County shall be designated to fund the mitigation and monitoring effort, which shall be included in the endowment identified in Mitigation Measure 3.3-1a.

Page ES-10, Impact 3.3-1, Mitigation Measure 3.3-1h in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation Measure 3.3-1h (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the green monardella populations adjacent to vineyard Blocks Z19, Z20, and V6 and maintain a 20-foot buffer from the avoided populations/areas, consistent with the modified block configurations detailed in Figure 3.3-6. These avoided populations shall be demarcated with construction flagging/fencing. The precise locations of these fences shall be inspected and approved by Napa County before commencement of the start of construction and any earthmoving activities. Any incursions into the avoidance boundary shall be conducted only by qualified personnel and only at the discretion of the County. No equipment or materials shall be laid down in or near the boundary.
	Replacement of green monardella plants/populations removed shall be at a minimum 1.2:1 ratio (mitigated:affected) for the approximately 1,162 plants being removed. <u>This plant can be</u> propagated from seeds, cuttings, and by dividing existing clumps. The cuttings or seeds shall be collected from a minimum of 100 individual plants present onsite to ensure diversity. The seeds or cuttings shall be collected and propagated by a nursery with experience propagating chaparral plants. Propagated replacement seeds Replacement seeding and/or cuttings planting shall occur be planted in suitable habitat in the Preservation Area (Figure 3.3-6) from green monardella seeds collected from the project site, subject to the Green Monardella Mitigation and Monitoring Plan outlined below.
	Before the start of vegetation clearing and earth-disturbing activities on the project site, a qualified botanist/biologist shall prepare a detailed <u>Green Monardella</u> Mitigation and Monitoring Plan for green monardella for review and written approval by the County. The Green Monardella Mitigation and Monitoring Plan shall document collaboration with CDFW on plan preparation. The plan shall include details on collection and propagation of seeds, <u>cuttings</u> , or clump divisions, seed spreading and planting of propagated plants <u>cuttings</u> , techniques to avoid introducing plant pathogens to the replanting area, and preparation of replanting areas. In addition, the plan shall include, but not be limited to: (1) an onsite habitat enhancement and planting plan, and offsite plantings, at the discretion of the County, if there is not enough suitable habitat within the proposed Preservation Area on the property to support a 1.2:1 ratio of individual plants planted to individual plants removed for perennial plants; (2) the success criteria with a minimum 80 percent survival rate; (3) a minimum of 5 years of monitoring activities for the populations; and (4) control of invasive species and any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a mitigation easement with the same requirements as outlined in Mitigation Measure 3.3-1a; a revogetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.
	After replanting, the replanting area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall

Resource Topic and Impact	Mitigation Measure
	be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.
	If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by negotiated with</u> the County shall be designated to fund the mitigation and monitoring effort, which shall be included in the endowment identified in Mitigation Measure 3.3-1a.

Page ES-11, Impact 3.3-1, Mitigation Measure 3.3-1j in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure		
3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDEW or USEWS	Mitigation Measure 3.3-1j (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Prior to approval, Erosion Control Plan #P18-00446-ECPA shall be revised to show that the project will be implemented in two phases with a maximum of 75 gross acres in Phase 1, and with Phase 1 being designed to avoid removal of any two-carpellate western flax or green monardella. The phasing is intended to demonstrate that the special-status plants removed and replaced as result of the project (i.e., holly-leaved ceanothus, two-carpellate western flax, and green monardella) can be successfully replaced and reestablished consistent with Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h prior to commencement of Phase 2 by requiring that all replacement plantings for the entirety of the project be installed in Phase 1 and successfully established before commencement of Phase 2. A Phasing Plan shall be provided to Napa County for review and approval before its incorporation into #P18-00446-ECPA and shall at a minimum include the following:		
by CDFW or USFWS.	 a minimum include the following: 1) Phase 1: Revised project area boundaries (i.e., clearing limits) to achieve a maximum of 75 gross acres of vineyard development. Phase 1 shall be designed to avoid removal of any two-carpellate western flax or green monardella and provide them with a minimum 20-foot buffer (and in a manner such that no plants or populations become isolated (i.e., vineyard development surrounding plants/populations on all sides). i. Phase 1 shall include the planting and establishment of all mitigatory replacement plants required for the entirety of the vineyard development project in conformance with the Mitigation Monitoring Plans required by Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h. ii. The project replacement plants required pursuant to this measure, and the 'Mitigation and Monitoring Plans' per Measures 3.3-1b, 3.3-1f, and 3.3-1h, shall be planted/installed no later than the spring (i.e., March 20th) following the year of initiation of construction of the project (#P18-00446-ECPA). 2) Phase 2: Revised project boundaries (i.e., clearing limits) that includes the remainder of the approved project's development area (clearing limits), and does not to exceed the approved project's total gross acres when combined with Phase 1 acreage. 3) After a minimum of five (5) years from the planting of all project/mitigatory replacement plantings required in Phase 1, the Applicant shall provide written documentation to the County from a qualified biologist confirming that the project replacement planting shave achieved the success criteria fails to be achieved after reasonable efforts, commencement of Phase 2 vineyard development shall not occur, and monitoring shall continue annually thereafter until the success criteria has been achieved. 4) Upon the County's receipt of written confirmation from the project biologist that the success criteria has been achieved for project's replacement mitigatory planting sinstalled during Phase 2, in		
	two phases of approximately 40–50 acres each so that it can be demonstrated that special status plants removed as result of the project can be successfully replaced consistent with Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h. A Phasing Plan shall be provided to Napa County for review and approval before its incorporation into #P18-00446 ECPA.Phase 1 shall include the development of vineyard Blocks V1–V4 and Z17–Z20 (as mitigated). Phase 1 shall include the development of vineyard Blocks V1–V4 and Z17–Z20 (as mitigated). Vineyard Blocks V6 and W8		

Resource Topic and Impact	Mitigation Measure		
	(in that order), or portions thereof, may be included in Phase 1 to achieve the approximately 40–50 acres of vineyard development allowed in Phase 1. The Phasing Plan shall also be considered in the plant Mitigation and Monitoring Plans specified in Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h, and replacement plantings required for the entirety of the project shall be successfully established before the start of Phase 2 so that special status plant mitigation can be implemented and carried out effectively.		

Page ES-11, Impact 3.3-1, Mitigation Measure 3.3-1k in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure			
3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation Measure 3.3-1k (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): For earth-disturbing activities occurring between February 1 and August 31 (coinciding with the grading season of April 1 through October 15 [Napa County Code Section 18.108.070.L] and the bird breeding and nesting seasons), a qualified biologist shall conduct a preconstruction survey for nesting birds in all suitable habitat in the development area, and where there is potential for impacts adjacent to the development area (typically-within a minimum of 500 feet from the of project area activities). A qualified biologist is defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site. The preconstruction survey shall be conducted no earlier than $\underline{7}$ 44-days before vegetation removal and the start of ground-disturbing activities. Should ground disturbance begin later than $\underline{7}$ 44-days from the survey date, the survey shall be repeated. A copy of the survey results shall be provided to the Napa County Conservation Division and CDFW for review and written acceptance before the start of work.			
	After work begins, if there is a period of no work activity of five <u>7</u> days or longer during the bird breeding season, the survey shall be repeated to ensure that birds have not established nests during the period of inactivity.			
	If nesting birds are found, <u>a qualified biologist the owner/permittee</u> shall identify appropriate avoidance methods and exclusion buffers in consultation with the County's Conservation Division and USFWS and/or CDFW before the start of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species, as determined by a qualified biologist in consultation with the County's Conservation Division and USFWS and/or CDFW.			
	Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County before the start of any <u>vegetation removal or</u> earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.			
	Active nests discovered during the survey shall be monitored daily during construction activities by a qualified biologist for 1 week, and weekly thereafter, to ensure that established no-disturbance buffers are adequate in avoiding impacts on nesting birds. Monitoring shall continue in this manner until the nest is no longer active, as determined by a qualified biologist. If the qualified biologist observes nesting birds displaying potential disturbance behaviors, the qualified biologist shall cease all construction activities, and CDFW shall be consulted with regarding avoidance and minimization measures prior to the resumption of construction activities. In this event, construction activities shall not resume without CDFW's written permission.			
	Using alternative methods to flush out nesting birds before preconstruction surveys, whether physical (removing or disturbing nests by physically disturbing trees with construction equipment), audible (using sirens or bird cannons), or chemical (spraying nesting birds or their habitats) would be an impact on nesting birds and is shall be prohibited. For any act associated with flushing birds from the project areas, consultation with USFWS and CDFW should occur before any activity that could disturb nesting birds.			

Page ES-12, Impact 3.3-2, Mitigation Measures 3.3-2a and 3.3-2b in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.3-2: Construction and operation of the proposed project could have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW or USFWS.	Mitigation Measure 3.3-2a (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): The owner/permittee shall enhance 0.89 40 acres of California bay forest within the 79.379.68-acre Preservation Area (Figure 3.3-6). This shall be accomplished by planting California bay trees at a density similar to that occurring in the California bay forest mapped on the project site (Figure 3.3-2) <u>about 50 trees per acre</u> . Before vegetation clearing <u>commences</u> on the project site, a qualified <u>professional knowledgeable and</u> <u>experienced with the habitats and trees at the project site betanist/biologist-shall prepare a detailed</u> <u>California Bay</u> Mitigation and Monitoring Plan for California bay, for review and approval by Napa County. The plan shall include details on replanting, techniques to avoid introducing plant pathogens to the replanting area, and preparation of the area for planting; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.
	After replanting, the area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.
	If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by negotiated with</u> the County shall be designated to fund the mitigation and monitoring effort.
	Mitigation Measure 3.3-2b (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid <u>14</u> <u>14.38</u> acres of California bay forest from the development area, consistent with the modified block configurations detailed in Figure 3.3-6. This avoided area shall be demarcated with construction flagging/fencing before <u>commencement of earthmoving</u> <u>activities construction</u> . The precise locations of these fences shall be inspected and approved by Napa County before <u>commencement of the start of construction and any</u> earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the boundary.

Page ES-13, Impact 3.3-4, Mitigation Measure 3.3-4 in Table ES-2, Summary of Impacts and Mitigation Measures, is revised to read:

Resource Topic and Impact	Mitigation Measure
3.3-4: Construction and operation of the proposed project could interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or could impede the use of native wildlife nursery sites.	Mitigation Measure 3.3-4 (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): The Vineyard Fencing Plan in Erosion Control Plan #P18-00446-ECPA shall be revised <u>prior to before</u> approval to fence clusters of vineyard blocks as shown in Figure 3.3-6 and as described below. The revised Vineyard Fencing Plan shall be subject to review and approval by Napa County before its incorporation into #P18-00446-ECPA.
	 The following vineyard blocks shall be fenced individually: Blocks V6, W8, Y15, Y16, Z17, Z18, and Z20. The location of new wildlife exclusion fencing shall generally be limited to the outside edge of vineyard avenues.
	 The following vineyard blocks shall be fenced in groups: Group 1—Blocks X10, X11, X12, and Y14; and Group 2—Blocks V1, V2, V3, and V4. To the maximum extent practical, the location of new wildlife exclusion fencing shall generally be limited to the outside edge of existing and proposed vineyard avenues and development areas.
	 A portion of vineyard Blocks V1, V2, and W8 shall be removed to provide and maintain a wildlife corridor at least 100 feet wide adjacent to the block(s), consistent with the modified block configurations detailed in Figure 3.3-6, to facilitate the movement of larger mammals through the area.
	 New fencing shall use a design that has 6-inch-square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence. Exit gates shall be installed at the corners of wildlife exclusion fencing to allow trapped wildlife to

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Resource Topic and Impact	Mitigation Measure			
	escape. To prevent entanglement, smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing.			
	• Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P18-00446-ECPA pursuant to the Vineyard Fencing Plan required by this mitigation shall be strictly prohibited, and would require County review and approval to ensure that the modified wildlife exclusion fencing location/plan would not result in potential impacts on wildlife movement.			
	 Prior to completion and finalization of #P18-00446-ECPA, all wildlife exclusion fencing shall be inspected by the County to ensure that it was installed in substantial conformance with the approved Vineyard Fencing Plan. Any wildlife exclusion fencing not installed in conformance with the Fencing Plan shall be removed and replaced in accordance with the Fencing Plan. Any vegetation removed as part of incorrect fencing installation shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, the locations of replacement plantings, plant pallet and planting methods, success criteria of at least 80 percent, and a minimum 5 year monitoring schedule. 			
	<u>The owner/permittee shall implement the following measures to avoid indirect impacts and encroachment into avoided habitats:</u>			
	 a) The project boundaries (i.e., clearing limits) specified and shown on #P18-00446-ECPA, as modified by mitigation and/or a project alternative, shall be flagged in the field by the project engineer and protective construction fencing shall be installed along the boundaries. Construction fencing shall be inspected and approved by the County prior to the commencement of vegetation removal and earth-disturbing activities. No equipment or work shall be allowed within the avoidance areas. The protective construction fencing shall be maintained and remain in place until all grading and erosion control measure installation are complete. b) For avoided areas located inside wildlife exclusion fencing as a result of implementation of mitigation, the protective constructive fencing shall be replaced with a wildlife-friendly permanent means of demarcation and protection around the avoidance areas are not encroached upon or disturbed as part of ongoing vineyard operations. The permanent means of demarcation shall be installed prior to completion and finalization of the ECPA. 			
	c) In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement), any vegetation inadvertently removed that is not located within the approved boundaries or clearing limits of #P18-00446-ECPA shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval that includes, at a minimum, the location of suitable habitat on the project parcel, the locations of replacement plantings, and success criteria of at least 80 percent, including monitoring schedule and activities. The replacement plan shall be implemented before vineyard planting activities. Any			

CHAPTER 1, INTRODUCTION

Page 1-4, top of page, the link to the Napa County website was updated to read:

The Draft EIR is available for review online on Napa County's website at:

https://pbes.cloud/index.php/s/PNR3tG2ZbxbgYwp

https://pbes.cloud/index.php/s/emaii8HkexDbyJM

CHAPTER 2, PROJECT DESCRIPTION

Page 2-13, below the second paragraph, is revised to read:

2.6.1 WILDFIRE RISK PROCEDURES

<u>Numerous procedures and management practices would be in place to minimize fire risk</u> <u>during both construction and operation:</u>

- Equipment, fuels, and chemicals would be stored in appropriate containment facilities and areas that would be appropriate for reducing the risk of fire ignition.
- Equipment would be allowed to cool during a break before refueling.
- <u>No equipment would be operated that would have the potential to create a spark</u> when the National Weather Service issues Red Flag Warnings.
- <u>All existing Stagecoach equipment is equipped with fire extinguishers, and any future equipment would be equipped, with fire extinguishers. Equipment operators would be trained by a qualified professional during onboarding and annually in the use of best fire prevention practices as well as in the use of fire equipment.</u>
- Brush would be burned in accordance with the standards of the California
 Department of Forestry and Fire Protection, and only on approved burn days with
 appropriate permits and/or authorization from the Bay Area Air Quality
 Management District.
- <u>In accordance with standard practice, blasting would occur only after vegetation</u> <u>has been cleared from the site, reducing the fuel load in the area.</u>
- <u>A fire safety plan would be provided to Napa County for approval and the approved</u> <u>plan would be supervised by a licensed third-party vendor during blasting.</u>
- <u>All current Stagecoach employees are trained, and any future employees would</u> <u>be trained, on the Stagecoach Emergency Action Plan (EAP) to address site-</u> <u>specific environment and evacuation nuances for fire, emergency, etc. The EAP</u> <u>includes: preventive measures such as establishing and maintaining firebreaks</u> <u>around the perimeter of the property and establishing safe work zones as</u> <u>necessary; safety measures that would be implemented during an incident</u> <u>including an evacuation plan, communication procedures, and isolation and</u> <u>securing of power and other ignition sources; and reporting and communication</u> <u>protocols with management and emergency officials.</u>

SECTION 3.2, AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Page 3.2-16, the following new regulatory requirements are added to Section 3.2.2 (Regulatory Setting - Local Regulations; Bay Area Air Quality Management District, *BAAQMD CEQA Air Quality Guidelines*) after the second full paragraph:

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022).¹ The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan [CAP]) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State's long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in Center for Biological Diversity v. Department of Fish & Wildlife (2015) *62 Cal. 4th 204).

Footnote: <u>1 https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines</u>, April 2022.

<u>There is no proposed construction-related climate impact threshold at this time. GHG</u> <u>emissions from construction represent a very small portion of a project's lifetime GHG</u> <u>emissions. The proposed thresholds for land use projects are designed to address</u> <u>operational GHG emissions, which represent the vast majority of project GHG</u> <u>emissions. As stated above, the updated BAAQMD thresholds of significance of climate</u> <u>impacts for land use projects (BAAQMD April 2022) are qualitative, with no "bright-line"</u> (quantitative) level below which to mitigate (also see Draft EIR page 3.2-21).

In light of the April 2022 BAAQMD Thresholds for Evaluating the Significance of Climate Impacts "Operational Emissions" for vineyard projects are interpreted to include: i) any reduction in the amount of carbon sequestered by existing woodland and forest that is removed as part of the project, and ii) ongoing emissions from the energy used to maintain and operate the vineyard including vehicular equipment and worker vehicle trips. Operational GHG/climate change emissions and impacts are weighed against no net decrease in carbon sequestration.

Page 3.2-19, the following disclosures have been added to Section 3.2.2 (Regulatory Setting - Local Regulations; Napa County Climate Action Plan) after the second full paragraph:

In July 2015, the County re-commenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as but not limited to methods, emission factors, and data sources), ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable State requirements, and iv) result in a functional and legally defensible CAP. On April 13, 2016, the County, as the part of the first phase of development and preparation of the CAP, released Final Technical Memorandum #1: <u>2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating the unincorporated County's community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons.</u>

Page 3.2-20, the following is added to Section 3.2.2 (Regulatory Setting - Local Regulations; Napa County Climate Action Plan) at the top of page:

On July 24, 2018, the County prepared and circulated a Notice of Preparation of a Draft Focused EIR for the Revised Draft Climate Action Plan (July 2018). The review period was from July 24, 2018, through August 22, 2018. The Draft Focused EIR for the CAP was published May 9, 2019. Additional information on the County CAP can be obtained at the Napa County Department of Planning, Building and Environmental Services or online at https://www.countyofnapa.org/589/Planning-Building-Environmental-Services. The County's draft CAP was placed on hold, when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a guantitative and measurable strategy for achieving net zero emissions by 2045.

Page 3.2-21, the following is added to Section 3.2.3 (Impacts and Mitigation Measures – Thresholds of Significance; BAAQMD Significance Thresholds) after the fourth paragraph:

The BAAQMD Thresholds for Evaluating the Significance of Climate Impacts (April 2022) also do not include construction-related impact thresholds, as GHG emissions associated with the energy used to develop, prepare and plant the project area represent a very small portion of a project's lifetime GHG emissions. The construction emissions analysis herein is for disclosure purposes only, as there is no threshold against which to analyze the potential significance of impact.

Page 3.2-21, the fifth paragraph has been revised to read:

For operational impacts, the following analysis uses BAAQMD's CEQA significance threshold for land use development projects: 1,100 MT CO2e per year. <u>Furthermore, in light of the April 2022 BAAQMD Thresholds for Evaluating the Significance of Climate Impacts, operational impacts are also evaluated against any reduction in the amount of carbon sequestered by existing woodland/forest that is removed as part of the project.</u>

Page 3.2-25, the following text is added to the end of the fifth paragraph:

<u>The thresholds of significance for use in determining whether a proposed project will</u> <u>have a significant impact on GHG's and climate change (BAAQMD, April 2022) did not</u> <u>affect the Air Quality CEQA Thresholds of Significance for the aforementioned air</u> <u>pollutants (i.e., ROG, NO_x, PM₁₀ and PM_{2.5}) identified in Table 2-1 of the BAAQMD 2017</u>

<u>Guidelines. As such, those thresholds will be used to determine the significance of</u> <u>potential air quality impacts associated with air pollutant emissions. These air pollutant</u> <u>thresholds of significance are identified in **Table 3.2-5.**</u>

Page 3.2-26, Table 3.2-5 is revised to read:

	Construction Emissions (pounds/day)			
	ROG	NOx	Exhaust PM ₁₀	Exhaust PM _{2.5}
Project Average—Uncontrolled	8.8	87.7	3.7	3.4
BAAQMD Threshold	54	54	82	54
Exceed Threshold?	No	Yes	No	No
Project Average—Mitigated ¹ with Tier 4 Equipment	<u>1.8 <u>3.8</u></u>	7.9 <u>35.5</u>	0.2 <u>1.5</u>	0.2 <u>1.4</u>
BAAQMD Threshold	54	54	82	54
Exceed Threshold?	No	No	No	No

TABLE 3.2-5 AVERAGE DAILY CONSTRUCTION EMISSIONS

NOTES: BAAQMD = Bay Area Air Quality Management District; NO_x = oxides of nitrogen; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; PM_{10} = particulate matter measuring 10 microns or less in diameter

<u>1 Mitigated project includes implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3, *Biological Resources*.</u>

SOURCE: Data compiled by Environmental Science Associates in March 2020 and October 2021 (see Appendix C)

Page 3.2-27, the Impact Conclusion and Mitigation Measure 3.2-1a are revised to read:

Impact Conclusion

<u>Uncontrolled</u> NO_X emissions during project construction would exceed BAAQMD's significance threshold (**Table 3.2-5**). <u>However, with implementation of Mitigation</u> <u>Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3,</u> <u>Biological Resources, which would reduce the project acreage by approximately</u> <u>25.37 gross acres, construction of the mitigated project would result in NOx emissions</u> <u>less than the BAAQMD significance threshold.</u> In addition, without implementation of the BAAQMD-required measures, fugitive dust (PM) emissions during project construction would be considered significant. Operational impacts would be less than significance thresholds (**Table 3.2-6**). Because project construction emissions would be significant without mitigation, the project would not be consistent with the 2017 Clean Air Plan. This impact would be **significant**.

Mitigation Measure 3.2-1a: Implement Mitigation Measures 3.3-1a through 3.3-1j. 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3, *Biological* <u>Resources.</u> All construction equipment used in project construction shall meet Tier 4 Final standards to reduce emissions of NO_x. Before initiation of the project, and annually thereafter until vineyard construction activities are complete, the permittee shall provide Napa County with a "Project Construction Equipment List" documenting compliance with this mitigation measure. The owner/permittee shall also maintain a Horsepower-Hour Log of the monthly horsepower-hours of construction equipment, and shall provide such logs at the County's request, to further document compliance. Enforcement of this mitigation measure will follow and be consistent with the Conservation Regulations (Napa County Code Section 18.108.140, Security, Violations, and Penalties).

Pages 3.2-28 and 3.2-29, the Impact Significance after Mitigation is revised to read:

Impact Significance after Mitigation: Implementing **Mitigation Measure 3.2-1a** would reduce NO_X emissions from project construction to below BAAQMD's significance threshold by <u>reducing the size of the project</u> requiring the use of Tier 4 equipment meeting more stringent emission standards than the average fleet. Implementing the BAAQMD-required basic control measures listed in **Mitigation Measures 3.2-1b** and **3.2-1c** would reduce the proposed project's potential construction-related fugitive dust impacts to a less-than-significant level. The open burning condition of approval also would ensure that burning of cleared vegetation is conducted in accordance with BAAQMD Regulation 5.

Based on BAAQMD guidance, if a project does not result in significant and unavoidable air quality impacts after the application of feasible mitigation, the project may be considered consistent with the 2017 Clean Air Plan. Therefore, with mitigation, the proposed project would be consistent with the goals of the 2017 Clean Air Plan and would not conflict with or obstruct its implementation. This impact would be **less than significant with mitigation**.

Additionally, with implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately 25.75 gross acres, NOX and PM emissions would be further reduced during project construction and operation.

Page 3.2-30, the Impact Significance after Mitigation is revised to read:

Impact Significance after Mitigation: Implementing **Mitigation Measures 3.2-1a and 3.2-1b** would reduce this impact to a **less-than-significant** level by <u>reducing the size of the project by approximately 25.37 acres</u> requiring that the project use construction equipment meeting the more stringent Tier 4 standards and implement<u>ing</u> all of BAAQMD's recommended basic control measures during construction to minimize fugitive dust emissions.

With mitigation, the proposed project's estimated emissions would not exceed the project-level thresholds for criteria air pollutants. Therefore, under the BAAQMD CEQA Guidelines, the proposed project would not result in a cumulatively considerable contribution to a regional air quality impact during construction or operation.

Implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately 25.75 gross acres, would further reduce the proposed project's estimated emissions.

Page 3.2-35 is revised to read:

Table 3.2-8 shows the overall project-related change in GHG emissions from carbon stocks and sequestration. This table shows the total one-time carbon storage loss from converting existing land uses into vineyard, along with the carbon sequestration loss of this conversion over the project's 30-year lifetime (20,859 25,810 MT CO₂e). **Table 3.2-8** also shows the total one-time carbon storage gain from the new vineyard, along with the carbon sequestration gain of the new vineyard over the proposed project's 30-year lifetime (11,961 MT CO₂e). <u>Table 3.2-8 presents these estimates for the mitigated proposed project with the implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3, *Biological Resources.*</u>

The proposed project could result in a one-time emissions sink of up to $7,660 \ \underline{986}$ MT CO₂e (4,140 $\underline{12,786}$ minus 11,800) from loss of carbon storage. Annual ongoing emissions associated with the loss of sequestration are estimated to be $552 \ \underline{429}$ MT CO₂e per year ($557 \ \underline{434}$ minus 5). Thus, the proposed project's total 30-year lifetime emissions would be $8,899 \ \underline{13,849}$ CO₂e. In other words, the emissions from changes in carbon stock/storage and sequestration as a result of project-related land use changes would be approximately $297 \ \underline{462}$ MT CO₂e per year ($8,899 \ \underline{13,849}$ divided by 30).

Table 3.2-9 summarizes the proposed project's operational emissions: emissions from vehicle trips and use of off-road equipment for project operations and maintenance, operation of the diesel generator, and the change in CO₂e emissions from changes to carbon storage and sequestration associated with the conversion of existing land to vineyards. The table also includes the amortized construction emissions calculated in **Table 3.2-7**. <u>Table 3.2-9 also presents these estimates for the mitigated proposed project with the implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3, *Biological Resources*.</u>

Vegetation/Land Use Type	<u>Original Proposed Project</u> Total MT CO2e	<u>Mitigated Proposed Project</u> <u>Total MT CO₂e</u>	
Cleared Area (acres)	<u>116.2</u>	<u>90.5</u>	
Proposed Vineyard Area (acres)	<u>91.3</u>	<u>69.0</u>	
Carbon Loss—Existing Land Use Removal			
Carbon Storage 12	<u>12,786</u> 4,140	<u>8,614</u>	
Carbon Sequestration (annual)	<u>434</u> 557	<u>286</u>	
30-Year Lifetime Emissions	<u>25,810</u>	<u>17,183</u>	
Carbon Gains—New Land Use Types ^{3a}			
Carbon Storage	-11,800	<u>-8,918</u>	
Carbon Sequestration (annual)	-5	<u>-4</u>	
30-Year Lifetime Emissions	-11,961	<u>-9,039</u>	
Total Project Lifetime Emissions	<u>13,849</u>	<u>8,144</u>	
Total Project Annual Emissions	<u>462</u> 297	<u>271</u>	

 TABLE 3.2-8

 ESTIMATED CHANGE IN GREENHOUSE GAS EMISSIONS FROM CARBON STOCKS AND SEQUESTRATION

NOTES: MT CO₂e = metric tons of carbon dioxide equivalents

¹ Assumes all vegetation removed onsite would be burned.

² Uses a total carbon storage factor of 12.8 MT C per acre for chamise chaparral updated from the 2.6 MT C per acre used in the Draft EIR analysis.

<u>3</u>Emissions are reported as negative because they represent a greenhouse gas emissions sink.

SOURCE: Data compiled by Environmental Science Associates in 2020 and October 2021 (see Appendix C)

Page 3.2-36, Table 3.2-9 and the paragraph under the table are revised to read:

Source	<u>Original Project</u> CO₂e (metric tons per year)	<u>Mitigated Project</u> <u>CO₂e (metric tons per year)</u>	
Mobile Sources	23	<u>21</u>	
Off-Road Farming Equipment	271 <u>268</u>	<u>268</u>	
Diesel Generator	28	<u>28</u>	
Net Change in Carbon Storage and Sequestration	297 <u>462</u>	<u>271</u>	
Amortized Construction Emissions	30	<u>10</u>	
Total	649 <u>809</u>	<u>598</u>	
BAAQMD Operational GHG Threshold	1,100	<u>1,100</u>	
Exceeds Threshold?	No	No	

 TABLE 3.2-9

 ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS FROM PROJECT OPERATION

NOTES: BAAQMD = Bay Area Air Quality Management District; CO_2e = carbon dioxide equivalents; GHG = greenhouse gas SOURCE: Data compiled by Environmental Science Associates in 2020 and 2021

When the proposed project's operational emissions are combined with the amortized annual construction emissions, total project emissions would be less than BAAQMD's <u>former</u> operational GHG threshold of 1,100 MT CO₂e for land use projects <u>for both the</u> <u>originally proposed and mitigated projects</u>. <u>Regarding the April 2022 BAAQMD Thresholds</u>

for Evaluating the Significance of Climate Impacts and reductions in carbon sequestered, with implementation of Mitigation Measures 3.3-1b through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, woodland/forest removal would be reduced by 15 acres, from approximately 32 acres to approximately 17 acres, and with a total overall acreage from 116.22 to 90.85 gross acres. This, in conjunction with implementation of Mitigation Measure 3.3-1a, which requires the permeant preservation of 79.3 acres of the site's vegetation types that would include at least 15 acres of the site's developable woodland/forest (i.e., outside of stream setbacks and on land with slopes less than 30%) and a minimum of 64-acres of other vegetation types located on the parcel, as shown on Figure 3.3-6. Mitigation Measure 3.3-2a, also requires the enhancement of \pm 1-acre of the site's bay woodland/forest. All of these measures together would effectively offset the loss in carbon sequestration from the proposed project as mitigated, by protecting from development an equal amount of lost carbon sequestration due to woodland/forest removal.

<u>Further, as stated in Section 3.10, Transportation, per the OPR Technical Advisory</u> and County's Transportation Impact Study (TIS) Guidelines, the addition of 110 or fewer daily trips is presumed to have a less than significant VMT impact. As detailed in Section 3.10, the most labor intensive period for vineyards, that generating the most traffic, is during harvest. This period typically extends for two to three weeks within a two-month period from late summer into fall. During that peak traffic period, the project would generate about 24 daily one-way trips by workers and four one-way grape truck trips per day. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the County's TIS recommended screening criterion threshold for small projects generating fewer than 110 trips per day.

Page 3.2-36, the Impact Conclusion is revised to read:

Napa County and BAAQMD do not have an adopted methodology or quantitative threshold for evaluating the significance of an individual project's construction-related contribution to GHG emissions. However, the proposed project's construction emissions, as annualized over the life of the project, combined with the project's operational emissions (including changes in carbon stock/storage and sequestration resulting from project-related land use changes), would not exceed BAAQMD's operational threshold of 1,100 MT CO2e per year for land use projects other than stationary sources (Table 3.2-9). <u>Furthermore, given that the proposed project would result in the permanent preservation of equal amounts of the carbon-sequestering woodland/forest that it proposes to remove (as mitigated and with implementation of either the Increased Preservation Area Alternative or Increased Watercourse Setbacks Alternative), and that the operational vehicle miles traveled fall well below the established threshold of 110 daily trips, the project is considered to be consistent with the State's long-term climate goals of being carbon neutral by 2045. Therefore, This impact related to operational GHG emissions would be **less than significant**.</u>

Additionally, implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately $\frac{25.75}{25.37}$ gross acres, would further reduce emissions to $\frac{598 \text{ CO}_2\text{e}}{2}$ (metric tons per year) as shown in Table 3.2-9 and this impact would remain less than significant.

Page 3.2-37, the last sentence of the first full paragraph is revised to read:

Implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately <u>25.37</u> 25.7 gross acres, would further reduce GHG emissions from the proposed project.

SECTION 3.3, BIOLOGICAL RESOURCES

Page 3.3-43, the first sentence of the third paragraph is revised to read:

Implementation of these mitigation measures would reduce the acreage of vineyard development by approximately $\underline{25}$ $\underline{26}$ acres, from 116.22 gross acres (inclusive of the maximum grading limits) to approximately $\underline{90.85}$ $\underline{90.47}$ gross acres.

Page 3.3-43, the fourth paragraph is revised to read:

Overall, implementation of **Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5** would retain 43–100 percent of the special-status plant population/ individuals on the project parcels (**Table 3.3-5a**) and 31–<u>65</u> 66 percent of the special-status plant species habitats (**Table 3.3-5b**).

Page 3.3-43, the last paragraph is revised to read:

With implementation of **Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5**, the areas outside of the proposed development area (referred to as the "Preservation Area" in the mitigation measures) would increase from 53.93 acres (170.15 – 116.22) to $\underline{79.3}$ $\underline{79.68}$ acres (170.15 – $\underline{90.85}$ $\underline{90.47}$) (**Table 3.3-5a**) through the following:

Page 3.3-44, the second full paragraph and Mitigation Measure 3.3-1a on pages 3.3-44 and 3.3-49, are revised to read:

Implementation of **Mitigation Measures 3.3-1b**, **3.3-1f**, **and 3.3-1h** would minimize impacts on holly-leaved ceanothus, two-carpellate western flax, and green monardella, respectively, through replacement at a 1<u>.2</u>:1 ratio (mitigated:affected) in the Preservation Area. Most (approximately 91 percent) of the onsite population of narrow-flowered California brodiaea would be preserved and located in the Preservation Area; implementation of Mitigation Measure 3.3-1d would protect the narrow-flowered California brodiaea plants in the Preservation Area during construction.

Mitigation Measure 3.3-1a: In order to mitigate impacts to special-status plants resulting from development of the proposed project, the Applicant shall place in permanent protection a A Preservation Area (Figure 3.3-6 of the Draft EIR) of no less than 79.3 totaling a minimum of 79.68 acres of equal or greater habitat value than the locations of the special-status plants impacted by the proposed project. as determined by a gualified professional knowledgeable and experienced in the local botany and habitats with the potential to occur at the project site. shall be All acreage designated for preservation shall be identified as such in a mitigation easement, with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection acceptable to Napa County. The mitigation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any earth disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first. In no case shall earthmoving activities be initiated until said mitigation easement is recorded.

Any request by the Applicant for an extension of time to record the mitigation easement shall be considered by the Planning, Building and Environmental Services Department (PBES) Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.

The land placed in protection shall be restricted from development and other uses that would <u>potentially</u> degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion)<u>, and should be</u> <u>otherwise restricted by the existing goals and policies of Napa County with the</u> <u>exception that access to and use</u>, Maintenance, and repair of the two existing groundwater supply wells within the project site (shown on Figure 1 in Draft EIR <u>Appendix J, Water Availability Analysis</u>) are allowed. and should be otherwise restricted by the existing goals and policies of Napa County.

Erosion Control Plan #P18-00446-ECPA shall be revised before approval to increase the Preservation Area to <u>a minimum of 79.3</u> 79.68 acres, consistent with the modified block configurations detailed in Figure 3.3-6. The owner/permittee shall record the mitigation easement within 60 days of approval of Erosion Control Plan Application (ECPA) #P18-00446-ECPA by the County; however, in no case shall the ECPA be initiated until said mitigation easement is recorded.

<u>With respect to the 79.3 acres of special-status species and habitat protected</u> <u>under Mitigation Measures 3.3-1b, 3.3-1d, 3.3-1f, and 3.3-1h, the Applicant shall</u> <u>provide an endowment to the accredited land trust that is sufficient to ensure that</u> the mitigation easement is monitored, enforced, and defended in perpetuity. The amount of the endowment shall be calculated using the Center for Natural Land Management's Property Analysis Record software, or an equivalent methodology if preferred by the land trust and accepted by the Land Trust Alliance, which provides the systematic and objective determination of the amount of the endowment in light of the conservation values to be protected by the easement. The record showing how the amount of the endowment was calculated shall be provided to County Counsel as part of its review of the mitigation easement. Any county staff time spent assessing and monitoring said provision shall be charged to the permittee, at the rate in effect at the time assessment and monitoring occurs, pursuant to County Fee Policy Part 80.

In accordance with Napa County Code Section 18.108.100 (Erosion Hazard Areas – Vegetation Preservation and Replacement), any special-status plants or populations inadvertently removed as part of the development authorized under #P18-00446-ECPA shall be replaced onsite at a ratio of 2:1 at locations with similar habitat, as approved by the planning director. A mitigation plan shall be prepared. At a minimum, the mitigation plan shall identify the locations where the plants will be planted in suitable habitat on the project parcel, the success criteria, and monitoring activities for the populations. The mitigation plan shall be finalized before planting and the start of construction activities. Any replaced special-status plants shall be monitored for at least three years to ensure an 80 percent survival rate.

Page 3.3-48, Table 3.3-5b, the row for California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (*Umbellularia californica* Forest Alliance) and the totals are revised to read:

	Mitigated Proposed Vineyard Blocks		
Biological Communities	Acreage ¹	Percent Removed	Acreage Preserved
California Bay–Madrone–Coast Live Oak–(Black Oak, Big- Leaf Maple) NFD Super Alliance (<i>Umbellularia californica</i> Forest Alliance)	<u>17.63</u>	<u>35</u> 3 4	<u>32.61</u>
Total	<u>90.85</u>		<u>79.3</u> 79.68

Page 3.3-48, Table 3.3-5b, Note 2 is revised to read:

2 An additional <u>0.89</u> 10 acres would be enhanced with Mitigation Measure 3.3-2a to achieve 2 acres preserved/enhanced for every 1 acre affected.

Page 3.3-49, Mitigation Measure 3.3-1b is revised to read:

Mitigation Measure 3.3-1b: The owner/permittee shall replace the 1,595 hollyleaved ceanothus affected by the project at a 1.2:1 ratio (mitigated:affected). Therefore, this would result in the replacement of 1,914 holly-leaved ceanothus. This shall be accomplished by one of four options, or a combination thereof, to produce the 1,914 transplants to satisfy the required mitigation for this species: (1) assisted seedling recruitment in replanting areas; (2) propagating seeds from shrubs located within the adjacent Stagecoach property; (3) propagating cuttings from shrubs from the adjacent Stagecoach property; and/or (4) transplanting young seedlings from the development areas into pots for later transplantation. The techniques for each of these options shall be discussed in detail in the Hollyleaved Ceanothus Mitigation and Monitoring Plan. propagating plants from seeds obtained from the plants on the project site or transplanting newly growing seedlings from the development area to the Preservation Area. Growing from seed is the preferred technique because it captures more of the genetic diversity present in the species at a given location. Seed collection shall be conducted by experienced native plant propagators from local native plant nurseries with experience in propagating native ceanothus. Propagation will include specific techniques to avoid introducing plant pathogens into the preserved area. After seedlings have been established in the nursery (generally 1 year), they shall be replanted in suitable areas in the onsite Preservation Area.

<u>The loss of 1,595 holly-leaved ceanothus would require a minimum planting/</u> <u>cutting/transplanting of 1,914 plants to achieve the 1.2:1 ratio. To establish 1,914</u> <u>plants, about 46 To replace approximately 1,595 holly leaved ceanothus, about</u> <u>38</u> individuals per acre shall be planted in a 42-acre portion of the Preservation Area containing chamise alliance, mixed manzanita, and scrub interior live oak (Figure 3.3-6). If it is not feasible to <u>plant 1,914</u> replace 1,595 holly-leaved ceanothus in the Preservation Area, suitable areas on adjacent lands may need to be <u>utilized</u> used, at the discretion of Napa County.

Before the start of vegetation clearing and earth-disturbing activities on the project site, a qualified botanist/biologist shall prepare a detailed <u>Holly-leaved</u> <u>Ceanothus Mitigation and Monitoring Plan</u> mitigation and monitoring plan for holly-leaved ceanothus for review and <u>written</u> approval by the County. The <u>Holly-leaved Ceanothus Mitigation and Monitoring Plan shall document collaboration</u> <u>with CDFW on plan preparation.</u> The plan shall include details on <u>the four</u> <u>replacement options identified above. In addition, the plan shall include, but not</u> <u>be limited to: (1) an onsite habitat enhancement and planting plan, and offsite</u> <u>plantings, at the discretion of the County, if there is not enough suitable habitat</u> <u>within the proposed Preservation Area on the property to support a 1.2:1 ratio of</u> <u>individual plants planted to individual plants removed for perennial plants; (2) the</u> success criteria with a minimum 80 percent survival rate; (3) a minimum of 5 years of monitoring activities for the populations; and (4) control of invasive species and any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a mitigation easement with the same requirements as outlined in Mitigation Measure 3.3-1a. collection and propagation of seeds, techniques to avoid introducing plant pathogens to the replanting area, and preparation of the area for planting; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.

After replanting, the replanting area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.

If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by</u> negotiated with the County shall be designated to fund the mitigation and monitoring effort, which shall be included in the endowment identified in Mitigation Measure 3.3-1a.

Page 3.3-50, Mitigation Measure 3.3-1d is revised to read:

Mitigation Measure 3.3-1d: To avoid impacts on the narrow-flowered California brodiaea to be retained located outside the project area, the clearing limits shall be clearly and accurately flagged by an engineer using GPS equipment. The narrow-flowered California brodiaea to be retained adjacent to the clearing limits and roadways shall be demarcated with construction flagging/fencing. The precise locations of these fences shall be inspected and approved by Napa County before the start of any earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance area/boundary.

In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any narrow-flowered California brodiaea plants inadvertently removed that are not located within the approved boundaries or clearing limits of #P18-00446-ECPA shall be replaced on-site at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, location of suitable habitat on the project parcel, the locations of replacement plantings, and success criteria of at least 80 percent, including monitoring schedule and activities. The replacement plan shall be implemented before vineyard planting activities. Any replaced plants shall be monitored for at least 5 years to ensure an 80 percent survival rate.

Page 3.3-51, Mitigation Measure 3.3-1f is revised to read:

Mitigation Measure 3.3-1f: <u>Replacement of two-carpellate western flax</u> plants/populations removed shall be at a minimum 1.2:1 ratio (mitigated:affected) for the approximately 2,472 plants being removed. To mitigate impacts on twocarpellate western flax plants, the top 3 inches of soil shall be removed with hand shovels within all areas where flax individuals would be removed by the proposed development. The soil shall be transported to areas where suitable habitat occurs in the Preservation Area (Figure 3.3-6) and scattered across open areas. The locations where the soil comprising two-carpellate western flax seeds is relocated shall be mapped and their boundaries delineated with flagging. the approximately 2,472 individual plants removed shall be replaced at a minimum 1:1 ratio (mitigated:affected). Replacement seeding and planting shall occur in suitable habitat in the Preservation Area (Figure 3.3-6) from two-carpellate western flax seeds collected from the project site, subject to the Mitigation and Monitoring Plan outlined below.

Before the start of vegetation clearing and earth-disturbing activities on the project site, a qualified botanist/biologist shall prepare a detailed Two-carpellate Western Flax Mitigation and Monitoring Plan for two-carpellate western flax for review and written approval by Napa County. The Two-carpellate Western Flax Mitigation and Monitoring Plan shall document collaboration with CDFW on plan preparation. The plan shall include details on flax soil collection and relocation on collection and propagation of seeds, seed spreading and planting of propagated plants, techniques to avoid introducing plant pathogens to the replanting soil relocation area, and preparation of replanting soil relocation areas. In addition, the plan shall include, but not be limited to: (1) an onsite habitat enhancement and planting plan, and offsite plantings, at the discretion of the County, if there is not enough suitable habitat within the proposed Preservation Area on the property to support a 1.2:1 ratio of individual plants planted to individual plants removed for perennial plants; (2) the success criteria with a minimum 80 percent survival rate; (3) a minimum of 5 years of monitoring activities for the populations; and (4) control of invasive species and any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a mitigation easement with the same requirements as outlined in Mitigation Measure 3.3-1a.; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.

After replanting relocating the soil containing flax seed, the soil relocation replanting areas shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.

If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by</u> negotiated with the County shall be designated to fund the mitigation and monitoring effort. which shall be included in the endowment identified in Mitigation Measure 3.3-1a.

Page 3.3-52, Mitigation Measure 3.3-1h is revised to read:

Mitigation Measure 3.3-1h: Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the green monardella populations adjacent to vineyard Blocks Z19, Z20, and V6 and maintain a 20-foot buffer from the avoided populations/areas, consistent with the modified block configurations detailed in Figure 3.3-6. These avoided populations shall be demarcated with construction flagging/fencing. The precise locations of these fences shall be inspected and approved by Napa County before <u>commencement of</u> the start of construction and any earthmoving activities. Any incursions into the avoidance boundary shall be conducted only by qualified personnel and only at the discretion of the County. No equipment or materials shall be laid down in or near the boundary.

Replacement of green monardella plants/populations removed shall be at a minimum 1<u>.2</u>:1 ratio (mitigated:affected) for the approximately 1,162 plants being removed. <u>This plant can be propagated from seeds, cuttings, and by dividing existing clumps. The cuttings or seeds shall be collected from a minimum of 100 individual plants present onsite to ensure diversity. The seeds or cuttings shall be collected and propagated by a nursery with experience propagating chaparral plants. Propagated replacement seeds Replacement seeding and/or cuttings planting shall occur be planted in suitable habitat in the Preservation Area (Figure 3.3-6) from green monardella seeds collected from the project site, subject to the <u>Green Monardella</u> Mitigation and Monitoring Plan outlined below.</u>

Before <u>the start of</u> vegetation clearing <u>and earth-disturbing activities</u> on the project site, a qualified botanist/biologist shall prepare a detailed <u>Green</u> <u>Monardella</u> Mitigation and Monitoring Plan for green monardella for review and <u>written</u> approval by the County. <u>The Green Monardella Mitigation and Monitoring</u> <u>Plan shall document collaboration with CDFW on plan preparation</u>. The plan shall include details on collection and propagation of seeds. <u>cuttings</u>, or clump <u>divisions</u>, seed spreading and planting of propagated plants <u>cuttings</u>, techniques to avoid introducing plant pathogens to the replanting area, and preparation of replanting areas. In addition, the plan shall include, but not be limited to: (1) an <u>onsite habitat enhancement and planting plan</u>, and offsite plantings, at the <u>discretion of the County</u>, if there is not enough suitable habitat within the <u>proposed Preservation Area on the property to support a 1.2:1 ratio of individual</u> <u>plants planted to individual plants removed ratio for perennial plants; (2) the</u> <u>success criteria with a minimum 80 percent survival rate; (3) a minimum of</u> <u>5 years of monitoring activities for the populations; and (4) control of invasive</u> <u>species and any other maintenance to ensure plantings achieve success criteria.</u> <u>Any offsite habitat shall also be placed under a mitigation easement with the</u> <u>same requirements as outlined in Mitigation Measure 3.3-1a.</u>; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.

After replanting, the replanting area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.

If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by</u> negotiated with the County shall be designated to fund the mitigation and monitoring effort. which shall be included in the endowment identified in Mitigation Measure 3.3-1a.

Pages 3.3-52, the last paragraph and page 3.3-53 the first paragraph are revised to read:

Although the mitigation measures that require plant replacement/<u>soil relocation</u> for holly-leaved ceanothus, two-carpellate western flax, and green monardella (**Mitigation Measures 3.3-1b, 3.3-1f,** and **3.3-1h**, respectively) are anticipated to reduce overall impacts on these special-status plant species to a less-thansignificant level, the potential exists for plant replacement and re-establishment to ultimately be unsuccessful. In the event plants cannot be successfully replanted or otherwise replaced after being removed, the mitigation would not be carried out effectively, and as a result, the impact would go unmitigated. This would be a potentially significant indirect impact of the project. To mitigate this impact to a less-than-significant level and ensure that replacement plants can be successfully established through reseeding, propagation, and transplanting, **Mitigation Measure 3.3-1j** would be implemented. **Mitigation Measure 3.3-1j** requires implementing the project in two phases so that plant replacement <u>or</u> <u>plant establishment from relocated soil</u> can be shown to be successful before the project's removal of all the special-status plants. The first phase would be implemented in vineyard Blocks V1–V4 and Z17–Z20 to take advantage of access provided by the existing vineyard area abutting these blocks to the south, and to provide for less fragmentation in the first phase.

Page 3.3-53, Mitigation Measure 3.3-1j is revised to read:

Mitigation Measure 3.3-1j: Prior to approval, Erosion Control Plan #P18-00446-ECPA shall be revised to show that the project will be implemented in two phases with a maximum of 75 gross acres in Phase 1, and with Phase 1 being designed to avoid removal of any two-carpellate western flax or green monardella. The phasing is intended to demonstrate that the special-status plants removed and replaced as result of the project (i.e., holly-leaved ceanothus, two-carpellate western flax, and green monardella) can be successfully replaced and reestablished consistent with Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h prior to commencement of Phase 2 by requiring that all replacement plantings for the entirety of the project be installed in Phase 1 and successfully established before commencement of Phase 2. A Phasing Plan shall be provided to Napa County for review and approval before its incorporation into #P18-00446-ECPA and shall at a minimum include the following:

- <u>Phase 1: Revised project area boundaries (i.e., clearing limits) to achieve a</u> <u>maximum of 75 gross acres of vineyard development. Phase 1 shall be</u> <u>designed to avoid removal of any two-carpellate western flax or green</u> <u>monardella and provide them with a minimum 20-foot buffer (and in a manner</u> <u>such that no plants or populations become isolated (i.e., vineyard</u> <u>development surrounding plants/populations on all sides):</u>
 - <u>Phase 1 shall include the planting and establishment of all mitigatory</u> replacement plants required for the entirety of the vineyard development project in conformance with the Mitigation Monitoring Plans required by Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h.
 - ii. <u>The project replacement plants required pursuant to this measure,</u> and the '*Mitigation and Monitoring Plans*' per Measures 3.3-1b, 3.3-1f, and 3.3-1h, shall be planted/installed no later than the spring (i.e., March 20th) following the year of initiation of construction of the project (#P18-00446-ECPA).
- 2) <u>Phase 2: Revised project boundaries (i.e., clearing limits) that includes the</u> remainder of the approved project's development area (clearing limits), and

does not exceed the approved project's total gross acres when combined with Phase 1 acreage.

- 3) After a minimum of five (5) years from the planting of all project/mitigatory replacement plantings required in Phase 1, the Applicant shall provide written documentation to the County from a qualified biologist confirming that the project replacement plantings have achieved the success criteria in the plant Mitigation and Monitoring Plans required by Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h. If the success criteria fails to be achieved after reasonable efforts, commencement of Phase 2 vineyard development shall not occur, and monitoring shall continue annually thereafter until the success criteria has been achieved.
- <u>4)</u> Upon the County's receipt of written confirmation from the project biologist that the success criteria has been achieved for project's replacement mitigatory plantings installed during Phase 1, the Applicant may proceed with vegetation removal or earthmoving activities associated with the development of vineyard in Phase 2, provided that any other applicable and required preconstruction requirements, conditions, or mitigation measure have been met to initiate Phase 2. In no event shall the Applicant commence any activities associated with Phase 2 unless and until the County has received the biologist's confirmation that the project replacement plantings have achieved the success criteria.

Erosion Control Plan #P18-00446-ECPA shall be revised before approval to be implemented in two phases of approximately 40-50 acres each so that it can be demonstrated that special-status plants removed as result of the project can be successfully replaced consistent with Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h. A Phasing Plan shall be provided to Napa County for review and approval before its incorporation into #P18-00446-ECPA.Phase 1 shall include the development of vineyard Blocks V1-V4 and Z17-Z20 (as mitigated). Phase 1 shall include the development of vineyard Blocks V1-V4 and Z17-Z20 (as mitigated). Vineyard Blocks V6 and W8 (in that order), or portions thereof, may be included in Phase 1 to achieve the approximately 40-50 acres of vineyard development allowed in Phase 1. The Phasing Plan shall also be considered in the plant Mitigation and Monitoring Plans specified in Mitigation Measures 3.3-1b, 3.3-1f, and 3.3 1h, and replacement plantings required for the entirety of the project shall be successfully established before the start of Phase 2 so that special-status plant mitigation can be implemented and carried out effectively.

Page 3.3-54, the first full paragraph is revised to read:

The mitigation measures would establish a $\underline{79.3}$ $\underline{79.68}$ -acre Preservation Area to protect special-status plant species and their habitats, result in the replacement of affected special-status plants at a 1.2:1 ratio (mitigated:affected) in the Preservation Area, and include monitoring of the replaced plants for a minimum of 5 years to ensure success.

Page 3.3-54, the second paragraph is revised to read:

Furthermore, implementation of **Mitigation Measures 3.3-1a through 3.3-1j**, as well as **Mitigation Measures 3.3-2a**, **3.3-2b**, **3.3-4**, **and 3.3-5**, would not substantially affect the feasibility of the project or the continued viability of agricultural use of the project parcels, because these measures would allow the owner/permittee to develop approximately <u>90.85</u> 90.5 acres of new vineyard on the 170.15-acre project site.

Page 3.3-55, Mitigation Measure 3.3-1k is revised to read:

Mitigation Measure 3.3-1k: For earth-disturbing activities occurring between February 1 and August 31 (coinciding with the grading season of April 1 through October 15 [Napa County Code Section 18.108.070.L] and the bird breeding and nesting seasons), a qualified biologist shall conduct a preconstruction survey for nesting birds in all suitable habitat in the development area, and where there is potential for impacts adjacent to the development area (typically within <u>a</u> <u>minimum of</u> 500 feet from the of project <u>area</u> activities). A qualified biologist is defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site. The preconstruction survey shall be conducted no earlier than <u>7</u> 14 days before vegetation removal and the start of ground-disturbing activities. Should ground disturbance begin later than <u>7</u> 14 days from the survey date, the survey shall be repeated. A copy of the survey results shall be provided to the Napa County Conservation Division and CDFW for review and written acceptance before the start of work.

After work begins, if there is a period of no work activity of five $\underline{7}$ days or longer during the bird breeding season, the survey shall be repeated to ensure that birds have not established nests during the period of inactivity.

If nesting birds are found, <u>a qualified biologist</u> the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County's Conservation Division and USFWS and/or CDFW before the start of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species, as determined by a qualified biologist in consultation with the County's Conservation Division and USFWS and/or CDFW. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County before the start of any <u>vegetation removal or</u> earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.

Active nests discovered during the survey shall be monitored daily during construction activities by a qualified biologist for 1 week, and weekly thereafter. to ensure that established no-disturbance buffers are adequate in avoiding impacts on nesting birds. Monitoring shall continue in this manner until the nest is no longer active, as determined by a qualified biologist. If the qualified biologist observes nesting birds displaying potential disturbance behaviors, the qualified biologist shall cease all construction activities, and CDFW shall be consulted with regarding avoidance and minimization measures prior to the resumption of construction activities. In this event, construction activities shall not resume without CDFW's written permission.

Using alternative methods to flush out nesting birds before preconstruction surveys, whether physical (removing or disturbing nests by physically disturbing trees with construction equipment), audible (using sirens or bird cannons), or chemical (spraying nesting birds or their habitats) would be an impact on nesting birds and is shall be prohibited. For any act associated with flushing birds from the project areas, consultation with USFWS and CDFW should occur before any activity that could disturb nesting birds.

Page 3.3-56, the last paragraph is revised to read:

A combination of restoration and preservation is proposed to comply with Policy CON-17. The project as proposed would result in the preservation of 18.61 acres of existing California bay forest (**Table 3.3-4**). With the implementation of mitigation measures, preservation of California bay forest would be increased to approximately <u>32.61</u> 32.99 acres within the <u>79.3</u> 79.68-acre Preservation Area. In addition, approximately <u>0.89</u> 10 acres of the chamise alliance, mixed manzanita, and scrub interior live oak suitable for California bay forest enhancement and not proposed for holly-leaved ceanothus replanting (**Mitigation Measure 3.3-1b**) would be enhanced <u>by planting California bay trees</u> and preserved in perpetuity with **Mitigation Measure 3.3-2a** below to achieve 2 acres preserved/enhanced for every 1 acre affected. With implementation of **Mitigation Measure 3.3-2a**, approximately <u>33.5</u> 42.99 acres (<u>32.61</u> 32.99 acres in the Preservation Area plus <u>0.89</u> 10 acres enhanced in the Preservation Area) of California bay forest would be preserved and <u>17.63</u> 17.25 acres would be developed.

Page 3.3-57, the first paragraph of Mitigation Measure 3.3-2a is revised to read:

Mitigation Measure 3.3-2a: The owner/permittee shall enhance <u>0.89</u> 40-acres of California bay forest within the <u>79.3</u> 79.68-acre Preservation Area (**Figure 3.3-6**). This shall be accomplished by planting California bay trees at a density similar to that occurring in the California bay forest mapped on the project site (**Figure 3.3-2**), <u>about 50 trees per acre</u>. Before vegetation clearing <u>commences</u> on the project site, a qualified <u>professional knowledgeable and experienced with the habitats and trees at the project site botanist/biologist shall prepare a detailed <u>California Bay</u> Mitigation and Monitoring Plan for <u>California bay</u>, for review and approval by Napa County. The plan shall include details on replanting, techniques to avoid introducing plant pathogens to the replanting area, and preparation of the area for planting; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements.</u>

After replanting, the area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.

If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be <u>determined by</u> negotiated with the County shall be designated to fund the mitigation and monitoring effort.

Page 3.3-58, Mitigation Measure 3.3-2b is revised to read:

Mitigation Measure 3.3-2b: Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid <u>14</u> 14.38 acres of California bay forest from the development area, consistent with the modified block configurations detailed in Figure 3.3-6. This avoided area shall be demarcated with construction flagging/ fencing before <u>commencement of earthmoving activities</u> construction. The precise locations of these fences shall be inspected and approved by Napa County before <u>commencement of the start of construction and any</u> earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the boundary.

Page 3.3-60, the first sentence of Mitigation Measure 3.3-4 is revised to read:

The Vineyard Fencing Plan in Erosion Control Plan #P18-00446-ECPA shall be revised <u>prior to</u> before approval to fence clusters of vineyard blocks as shown in Figure 3.3-6 and as described below.

Page 3.3-61, the bottom of Mitigation Measure 3.3-4 is revised to read:

- Prior to completion and finalization of #P18-00446-ECPA, all wildlife exclusion fencing shall be inspected by the County to ensure that it was installed in substantial conformance with the approved Vineyard Fencing Plan. Any wildlife exclusion fencing not installed in conformance with the Fencing Plan shall be removed and replaced in accordance with the Fencing Plan. Any vegetation removed as part of incorrect fencing installation shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, the locations of replacement plantings, plant pallet and planting methods, success criteria of at least 80 percent, and a minimum 5 year monitoring schedule.
- <u>The owner/permittee shall implement the following measures to avoid indirect</u> <u>impacts and encroachment into avoided habitats:</u>
 - a) The project boundaries (i.e., clearing limits) specified and shown on #P18-00446-ECPA, as modified by mitigation and/or a project alternative, shall be flagged in the field by the project engineer and protective construction fencing shall be installed along the boundaries. Construction fencing shall be inspected and approved by the County prior to the commencement of vegetation removal and earth-disturbing activities. No equipment or work shall be allowed within the avoidance areas. The protective construction fencing shall be maintained and remain in place until all grading and erosion control measure installation are complete.
 - b) For avoided areas located inside wildlife exclusion fencing as a result of implementation of mitigation, the protective constructive fencing shall be replaced with a wildlife-friendly permanent means of demarcation and protection around the avoided areas (such as split rail fence, three-strand wire fence, or rock fence/barrier) so that avoidance areas are not encroached upon or disturbed as part of ongoing vineyard operations. The permanent means of demarcation shall be described and shown on the fencing plan pursuant to Mitigation Measure 3.3-4, and shall be installed prior to completion and finalization of the ECPA.
 - <u>c) In accordance with County Code Section 18.108.100 (Erosion hazard</u> <u>areas – Vegetation preservation and replacement) any vegetation</u>

inadvertently removed that is not located within the approved boundaries or clearing limits of #P18-00446-ECPA shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, location of suitable habitat on the project parcel, the locations of replacement plantings, and success criteria of at least 80 percent, including monitoring schedule and activities. The replacement plan shall be implemented before vineyard planting activities. Any replaced plants shall be monitored for at least 5 years to ensure an 80 percent survival rate.

Page 3.3-61, the second sentence in the last paragraph is revised to read:

The actual number of trees removed would be less with implementation of **Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5**, which would result in the removal of <u>25.37</u> 25.75 acres from the proposed project for inclusion in the Preservation Area (**Figure 3.3-6**). The distribution of trees is highly variable on the site, and generally correlates with the vegetation communities mapped (**Figure 3.3-2**).

SECTION 3.5, GEOLOGY AND SOILS

Page 3.5-1, the second to the last paragraph is revised to read:

Geologic mapping indicates that the project site is underlain <u>at depth</u> by Franciscan Formation basement rocks, a sequence of sheared and deformed sandstone and shale mixed with remnants of the oceanic crust from the collision between the ancient Farallon and North American Plates more than 25 million years ago<u>, which lies below the</u> <u>Sonoma Volcanics</u> (Gilpin 2018). Overlying the Franciscan Complex are Tertiary and Quaternary <u>sedimentary volcanic</u> rocks.

Page 3.5-23, the third paragraph is revised to read:

With implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately <u>25.37</u> 25.75 gross acres, it is anticipated that soil loss associated with the proposed project would be further reduced than calculations provided in **Table 3.5-4**.

SECTION 3.7, HYDROLOGY AND WATER QUALITY

Page 3.7-1, the third paragraph is revised to read:

Napa County has a Mediterranean climate with wet winters and dry summers. Approximately 90 percent of the county's precipitation occurs between November and April. Higher elevations receive more precipitation than lower elevations, and northern Napa County receives more than the southwe<u>ste</u>rn part of the county. Precipitation also varies from year to year, deviating as much as 200 percent from the 85-year average.

Page 3.7-2, the second and third paragraphs are revised to read:

The Rector watershed is surrounded by <u>relatively</u> steep mountains that drain through alluvial fans <u>ephemeral creeks and drainages</u>, then across a small plateau before draining into Rector Canyon. The watershed's steep topography causes precipitation to flow quickly overland to Rector Reservoir, which is often the first reservoir in Napa County to crest its spillway. The lack of floodplains in this system means that material has nowhere to settle out before reaching the reservoir. As a result, major storms can rapidly transport large volumes of loose material from throughout the watershed to the reservoir, as occurred after the 1981 Atlas Peak fire.

Rector Reservoir collects surface water runoff from the surrounding tributary watershed area, which is distributed downstream for various uses (e.g., the Yountville Veterans Home, the City of Napa, and the California Department of Fish and Wildlife fish hatchery). Inflow to the reservoir is primarily streamflows from Rector Creek and other tributaries, hillslope runoff in the area, and direct precipitation. Rector Reservoir fills is expected to fill up every year, even in dry years when the area receives less than 26 inches of rainfall (Ridge to River Incorporated Environmental Services 2009, cited in Richard C. Slade and Associates 2018).

Page 3.7-8, the second, third, and fourth paragraphs are revised to read:

The North Napa Valley Basin is the largest and most productive groundwater basin in Napa County. This aquifer is unconfined and is primarily alluvium consisting of poorly sorted, lenticular stream deposits of sand and gravel interspersed with floodplain deposits of silts and clays. (Lenticular soil particles are arranged around an elliptical or circular plane and are bounded by curved faces, i.e., lens-shaped.) These deposits vary in thickness from more than 300 feet at the southern end of the valley, to less than 50 feet near Calistoga. Underlying the alluvium in most locations are the Sonoma Volcanics, which are up to 2,000 feet thick (Napa County 2005). DWR does not consider the Sonoma Volcanics to be a part of the North Napa Valley Basin.

Groundwater data from the North Napa Valley Basin show well yields reaching a maximum of 3,000 gallons per minute and averaging 223 gallons per minute (DWR 2003). Given the differing geology and the distance between the North Napa Valley Basin and the project site, these areas are not hydraulically connected, although flows in Rector Creek may recharge the North Napa Valley Basin.

The proposed vineyard would be irrigated entirely by groundwater from two existing wells located in the southeastern portion of the project site. Additional wells may be

developed in the future, but the overall groundwater demand would not change.¹ Richard C. Slade and Associates conducted an analysis to comply with Napa County's guidelines for a "Tier 1" Water Availability Analysis (an estimate of groundwater recharge) and provide a hydrogeologic analysis (**Appendix J**). They also provided groundwater monitoring data in a memorandum² (**Appendix K**; Richard C. Slade and Associates 2020). This memo, dated January 31, 2020, updated the information presented in two previous monitoring summary memoranda, issued July 29, 2016, and April 2, 2018. The groundwater monitoring data include water levels and groundwater extraction records for specific wells on the project site and the adjacent vineyard to the south (the Stagecoach Vineyard) that is operated by the Applicant. Data were provided from Wells 3, 4, 7, and 12 on the Stagecoach Vineyard parcels (see Figure 1 in **Appendix J** for a map of the well locations). Well 7 is presented as an alternative monitoring point to Well 3 because Well 3 is no longer used for irrigation purposes. The memorandum notes that reported groundwater production was likely underestimated because of errors and inconsistencies in the records predating 2015.

Footnote: <u>2 The Appendix K monitoring memorandum was prepared in compliance with the Mitigation Measure 4.6-4</u> from the prior Stagecoach Vineyards Erosion Control Plan Project Application No. P06-0042-ECPA Final EIR (2008).

Pages 3.7-10, the following new regulatory requirements are added to Section 3.7.2 (Regulatory Setting - State Regulations):

Drought Emergency

On April 21, 2021, Governor Gavin Newsom declared a drought emergency in the state of California and as of July 8, 2021, 50 counties are under the drought state of emergency, including Napa County. The Governor directed the Department of Water Resources to increase resilience of water supplies during drought conditions. On June 8, 2021, the Napa County Board of Supervisors adopted a resolution declaring a Proclamation of Local Emergency due to drought conditions which are occurring in Napa County. On October 19, 2021, the Governor issued a proclamation extending the drought emergency statewide. The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

Executive Order N-7-22

In March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater well in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the Groundwater Sustainability Agency (GSA) managing the basin that

¹ Should additional wells be developed in the future, they would undergo separate review and further CEQA evaluation as needed.

groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable Groundwater Sustainability Plan (GSP) and would not decrease the likelihood of achieving sustainability goals for the basin covered by a GSP, or that the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure. The Executive Order (EO) applies to new, altered or replacement well permits.

Page 3.7-15, the following is added to Section 3.7.2 (Regulatory Setting - Local Regulations)

On March 8, 2022 and August 9, 2022, the Napa County Board of Supervisors adopted resolutions proclaiming a continued state of Local Emergency due to the 2021-2022 drought. On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during the declared drought emergency. The direction limits a parcel's groundwater allocation to 0.3 acre feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis would suffice to assess potential impacts on groundwater supplies. Because the parcel is located outside of the GSA Subbasin, a parcel-specific Water Availability Analysis was performed. To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways, the County's Water Availability Analysis guidance requires applicants to perform a Tier 3 analysis for new or replacement wells, or discretionary projects that would result in an increase in groundwater demand on existing wells that are located within 1,500 feet of designated "Significant Streams."³

Footnote: <u>3 Refer to Figure 1: Significant Streams for Tier 3, located at www.countyofnapa.org/3074/Groundwater-</u> Sustainability. The "Significant_Streams" and "Significant_Streams_1500ft_buffer" GIS layers are published as publiclyavailable open data through the County's ArcGIS Online Account.

Page 3.7-25, the second paragraph is removed as follows:

Recent studies have found that groundwater levels on the Napa Valley floor exhibit stable long-term trends, with a shallow depth to water. However, the availability, recharge, storage, and yield of groundwater is not consistent across the county. More is known about the resource where historical data have been collected; less is known in areas with limited data or unknown geology. To fill existing data gaps and improve understanding of Napa County's groundwater resources, the Napa County Groundwater Monitoring Plan recommended 18 Areas of Interest for additional monitoring of groundwater levels and water quality. As a result of the Groundwater Resources Advisory Committee's outreach to well owners and the public, approximately 40 new wells have been added to the monitoring program in these areas. Groundwater sustainability objectives were developed and recommended by the Groundwater Resources Advisory Committee and adopted by the Board of Supervisors. The recommendations included the goal of developing sustainability objectives, defined sustainability, and explained the shared responsibility for groundwater sustainability and the important role of monitoring in achieving groundwater sustainability.

Page 3.7-26, the first paragraph is revised to read:

Based on available climatological data, site-specific information, and other available data and analysis relevant to potential recharge, the Water Availability Analysis estimates the project site's average annual groundwater recharge to be approximately <u>69.3</u> 84.1 AF per year. (See **Appendix J** for specific details and calculations.) This is based on an average annual rainfall of 35 inches per year over the project site and a deep percolation rate of <u>14</u> 17 percent. As proposed, the project is estimated to have an annual onsite future groundwater demand of 54.8 AF/year during the first 4 years and 45.7 AF/year after the fourth year, which is below the estimated average annual recharge volume of <u>69.3</u> 84.1 AF/year.

Page 3.7-27, the second paragraph of the Groundwater Management, Wells—Condition of Approval is revised to read:

The owner/permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly). Such data will be provided to the County, if the PBES [Planning, Building, and Environmental Services Department] Director determines that substantial evidence indicates that water usage at the vineyard is affecting, or would potentially affect, groundwater supplies or nearby wells. If data indicate the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices, and shall be capped consistent with the approved vineyard and replanting acreage and groundwater usage identified in the Water Availability Analysis.

Pages 3.7-27 and 3.7-28, the Impact Conclusion has been revised to read:

The anticipated annual water use by the proposed project <u>(54.8 AF/year)</u> is below the project site's anticipated <u>average</u> annual groundwater recharge rate <u>of 69.3 AF/year</u>. <u>Because this project relies on existing wells, and is not within the GSA boundary, it is not subject to Executive Order N-7-22 Section 9b findings. The proposed project, with implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4 and 3.3-5, would reduce the net planted acreage by approximately 22.3 acres, which would reduce anticipated long-term overall groundwater demand by approximately 11.15 AF/year, resulting in an anticipated demand of 43.7 AF/year during the first four years</u>

<u>(from 54.8 AF/year) and 34.6 AF/year after the fourth year (from 45.7 AF/year), which</u> <u>are both below the overall 0.3 AF/year/acre allocation of 51.06 AF/year.</u> In addition, to date, no evidence exists of groundwater problems or declining well production in this area of Napa County, and the proposed project would incorporate the standard groundwater use condition. Therefore, construction and operation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be **less than significant**.

Additionally, the project wells (SN-1 and SN-2) are located outside of the 1,500-foot buffer of nearby "Significant Streams" (Napa County GIS Significant Streams and Significant Streams 1,500 foot buffer layers); therefore, the project is not subject to a <u>Tier 3 analysis.</u>

With implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project's acreage by approximately 25.75 gross acres (22.3 net acres), anticipated long-term overall groundwater demand would decrease by approximately 11.15 AF/year.

Page 3.7-31, the first full paragraph is revised to read:

Implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately <u>25.37</u> 25.75 gross acres, is anticipated to result in similar hydrologic effects and rates of runoff.

SECTION 3.10, TRANSPORTATION

Page 3.10-6, the fourth paragraph is revised to read:

Implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately <u>25.37</u> 25.75 gross acres, may further reduce the number of project-generated vehicles.

Page 3.10-9, the last paragraph is revised to read:

Implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately <u>25.37</u> 25.75 gross acres, may further reduce the number of project-generated vehicles.

SECTION 4.1, CUMULATIVE IMPACTS

Page 4-4, the second and third paragraphs are revised to read:

The 3-mile radius contains approximately 22,140 acres. In 1993, approximately 1,548 acres (7 percent) of the land within this radius were developed as vineyard. As shown in Table 4-1, since 1993, approximately 1.998 1.619 additional acres (9 7 percent of the

3-mile radius) have been developed as vineyard, for a total of $\underline{16}$ 14 percent (approximately $\underline{3.546}$ $\underline{3.167}$ acres) of the 3-mile radius containing vineyard.

Based on an evaluation of Napa County's geographic information system (GIS) layer identifying Potentially Productive Soils within the 3-mile radius, approximately 5,113 acres (23 percent) of the land within this radius have the potential to be developed as vineyard. This, in conjunction with existing and approved vineyard development (approximately 3.546 3.167 acres), results in a total potential buildout of approximately 8.659 8.280 acres, or 44.37 percent of the 3-mile radius...

Table 4-1, pages 4-5 through 4-8, are revised to exclude replanting plans and modifications to ECPAs that added no new vineyard acreage to the cumulative context; the table is revised to read:

Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
1993105	September 13, 1993	Winegrowers Farming Co.	3.30	2002257	April 21, 2008	George Gaskins	10.40
1993024	October 8, 1993	Weitz Vineyard	8.30	200601441	April 29, 2008	David McBride	2.90
1993403	March 24, 1994	James Bushey	42.00	200700058	July 8, 2008	Lake Ridge Vineyards	6.30
1993224	September 30, 1994	Charles Saunders	2.20	200800460	August 15, 2008	Silverado Farming Co Del Dotto	16.30
1994364	July 17, 1995	Leighton Taylor	14.50	20060042	October 7, 2008	Stagecoach Vineyards	101.30
1995012	July 28, 1995	Weitz Vineyard	4.20	200800478	October 7, 2008	Joseph Phelps Vineyards	22.98
1995024	August 16, 1995	Jan Krupp–PPI Eng.	51.50	1998581	January 6, 2009	Jay Caldwell	38.30
1995126	October 14, 1995	Christina Vineyards	13.00	200900122	April 14, 2009	Stagecoach Vineyards	17.12
1995131	October 18, 1995	Michael Neal	0.75	200900167	April 28, 2009	Taylor Leighton	24.70
1996512	March 25, 1997	Patrick Kuleto	22.00	200900010	June 19, 2009	Sage Hill Vineyards	2.10
1996121	May 8, 1997	David Abreu Vineyard Management	2.70	200900161	July 6, 2009	Mary Ann Gilson	11.00
1996686	July 2, 1997	Grandview Vineyards	18.00	200900368	September 11, 2009	Chappellet Vineyard	28.30
1997014	August 8, 1997	Davie Pine	2.18	201000113	March 26, 2010	Stagecoach Vineyards	22.70
1996665	August 14, 1997	Kenneth Myers	10.60	201000112	March 29, 2010	Jan Krupp	15.60

 Table 4-1

 Cumulative Erosion Control Plan Projects List within 3 Miles of the Proposed Project (1993–2020)

 TABLE 4-1

 CUMULATIVE EROSION CONTROL PLAN PROJECTS LIST WITHIN 3 MILES OF THE PROPOSED PROJECT (1993–2020)

Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
1997054	August 22, 1997	Chris Willis	1.00	201000152	April 28, 2010	Timar LLC	7.40
1997092	September 4, 1997	Levine	15.00	201000187	June 10, <u>2010</u>	Sugarloaf Farming Corp.	26.90
1997112	September 12, 1997	Debb Family Vineyards	24.10	200900226	August 13, 2010	Probst Family Vineyards	15.20
1997120	September 12, 1997	Stephen Girard	20.00	200900396	March 22, 2011	Richard Leff	20.70
96681	December 29, 1997	Joseph Phelps Vineyards	22.98	201100093	March 23, 2011	Naoko DallaValle	8.06
1997386	March 11, 1998	George Gaskins	7.10	201100114	March 31, 2011	Stagecoach Vineyards	106.80
1998008	July 24, 1998	Chappellet Winery Inc.	18.45	201100104	April 26, 2011	Martinez Vineyard	13.61
1998042	August 25, 1998	Michael Neal	3.50	201100137	April 28, 2011	Melanson Vineyard	10.20
1996138	August 31, 1998	Oakville Ranch Vineyards	28.00	201000203	July 19, 2011	Davidowski	16.60
1995614	September 29, 1998	Dick Martin– David Pirio	2.00	201100266	August 11, 2011	Montagana Napa Valley	19.50
1996586	November 9, 1998	Stagecoach Vineyards	116.00	200200454	February 14, 2012	Rodgers Land & Development	157.00
1998159	February 22, 1999	Weitz Vineyard	1.72	201200021	April 12, 2012	Sugarloaf Farming Corp.	1.60
1997544	March 5, 1999	Patrick Kuleto	19.29	201200147	May 11, 2012	Chappellet Vineyard	14.40
199800129	March 30, 1999	Colgin Family Partners	58.20	201200321	October 8, 2012	Joseph Phelps Trust	2.40
1998320	April 2, 1999	Jan Krupp	28.79	201300132	May 14, 2013	Phillips Vineyard	1.74
1998322	April 21, 1999	Peter Murphy	9.70	201300144	June 14, 2013	Mountain Peak Vineyards	31.90
1998280	April 21, 1999	Drew Aspegren	7.10	201400075	April 25, 2014	Krupp Brothers	31.20
1998422	April 22, 1999	John Moynier	2.00	201300133	April 28, 2014	Lumbert Vineyard Development	26.68
1998267	April 22, 1999	Beth Painter	17.00	201400142	May 15, 2014	Stagecoach Vineyards	16.60
1998247	May 6, 1999	Shafer Vineyards	14.10	201400140	May 27, 2014	Antinori Napa Valley	13.80
1998201	May 18, 1999	Soda Canyon Real Estate Investment	23.60	201300263	June 6, 2014	Mountain Peak Vineyards	4.60
1998051	May 28, 1999	June Townsend	25.00	201300390	September 22, 2014	Nine Suns Vineyard	0.90

Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
1995374	June 4, 1999	Jan Krupp–PPI Eng.	374.00	201400309	October 22, 2014	Rodgers Land & Development	157.00
1998509	June 28, 1999	Gerald Warman	17.25	201000102	March 25, 2015	Arthur Havenner	25.60
1998563	July 13, 1999	David Ilsley	3.29	201500066	July 20, 2015	Gary Raugh	0.51
1998218	July 21, 1999	Gregory Melanson	9.30	201500343	October 19, 2015	Bevan and DeCrescenzo	2.00
1998210	July 30, 1999	Robert Long	19.50	201500227	February 22, 2016	Phillip Sunseri	3.78
1998340	August 16, 1999	Henry Martinez	25.00	201500320	March 11, 2016	Antica Napa Valley	77.00
1998564	August 17, 1999	Drew Aspegren	15.70	201600207	May 20, 2016	Fossil Partners, LP	2.20
1998603	August 27, 1999	Rombauer Atlas Peak Vineyard	27.70	201600157	May 25, 2016	Meadowrock Rock Vineyard	34.60
1999527	July 7, 2000	Lyndsey Harrison	16.00	201700118	April 11, 2017	Stagecoach Track II Replant	70.30
2000078	August 18, 2000	Chappellet Vineyard	53.00	201600059	May 10, 2017	Antica California	53.50
1999514	June 13, 2001	J. Delong	7.90	201700228	June 7, 2017	Pritchard Hill Track II ECP	4.30
1998330	August 6, 2001	David Long	1.00	20170025 4	July 25, 2017	Chappellet Track II Replant	6.10
1999369	August 16, 2001	Dalla Valle Naoko	1.97	201700242	August 15, 2017	Capra Company Track I Replant	71.84
2001072	September 12, 2001	Jeffrey Gargiulo	16.20	201700272	August 18, 2017	Edcora Track II Replant	15.83
1998544	September 14, 2001	Gary Lencioni	6.37	201700328	September 15, 2017	RUDD Track II ECP	8.50
1999252	September 18, 2001	Pina Vineyard Management	3.23	201500399	December 15, 2017	Vangone Vineyards	6.20
2001108	October 4, 2001	Naoko Dalla Valla	4 .98	201800082	March 29, 2018	Sweeney Track I I Replant	8.00
2001118	October 8, 2001	Douglas Shafer	6.70	201800052	March 29, 2018	Animo LP Track	15.60
2002140	May 29, 2002	Linda Taylor	4 .90	201800062	March 29, 2018	Gallo Track II ECP	2.30
2001238	September 18, 2002	Jeff Gargiulo	7.70	201700348	April 20, 2018	Promise Wine LLC Track I ECP (McPherson)	4.46
1998328	April 22, 2003	David Long	27.70	201800261	July 20, 2018	Sinskey Family LLC	4.30

75.00

201800029

November

16, 2018

 TABLE 4-1

 CUMULATIVE EROSION CONTROL PLAN PROJECTS LIST WITHIN 3 MILES OF THE PROPOSED PROJECT (1993–2020)

Buena Tierra

Vineyards

2003256

January 21,

2004

5.50

Continuum

ECP

Estate Track I

TABLE 4-1
CUMULATIVE EROSION CONTROL PLAN PROJECTS LIST WITHIN 3 MILES OF THE PROPOSED PROJECT (1993–2020)

Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
2004064	February 3, 2004	Dalla Valle Naoko	12.70	201900389	January 17, 2019	Edcora Vineyards	73.48
2002368	February 17, 2004	Alan Vincent Giacosa	2.19	201900063	March 25, 2019	Gallo/ Stagecoach Vineyards	10.60
20040440	September 21, 2004	Cliff Lede	3.20	201900199	May 17, 2019	Houyi Vineyard	26.00
2002188	May 26, 2005	Steven Rivera	0.99	201900222	May 21, 2019	Shafer Family Vineyard	2.10
20050367	October 11, 2005	Shafer Vineyards	24.40	201500342	July 10, 2019	Hendrickson Family Vineyards	<u>28.42</u> -36.00
2001226	October 26, 2005	Codorniu Napa Inc.	76.00	201900275	July 12, 2019	llsley Trust et al.	21.70
2000399	June 23, 2006	George Noble	5.06	201900351	September 20, 2019	Odyssey Vineyard LLC	20.40
200601001	June 27, 2006	Sage Hill Vineyards	15.10	201800275	November 25, 2019	Metamorphosis –Ovid Vineyards	25.60
200601143	August 11, 2006	Kuleto Estates	6.50	201600323	December 4, 2019	Bloodlines, LLC	86.20
200601152	August 17, 2006	Screaming Eagle	4 .70	201900037	March 11, 2020	Wappo Land Co. Track I ECP	13.10
1992382	November 9, 2006	Sam Gaskins	10.40	201700432	Pending	KJS Sorrento Track I ECP	156.80
2003522	March 8, 2007	Jacquelyn Joy Cordes	24.00	201900144	Pending	Stags Ridge	9.00
200700274	April 26, 2007	Martinez Vineyard	3.40	201800106	Pending	Oakville Farms Track I ECP	7.70
200601007	May 31, 2007	Colgin Family Partners	58.20	201900056	Pending	Bevan & DeCrescenzo	15.00
200700360	July 17, 2007	Bryant Vineyards Ltd.	6.10	202000205	Pending	Prichard Hill	29.10
200700456	July 24, 2007	Backus Ranch	3.00	201900488	Pending	State Farm Gamble Ranch	8.30
200700508	August 8, 2007	Poetry Vineyard	12.80	20200080	Pending	Antinori California	9.70
2003020	August 10, 2007	Doug Hill	15.60	202000271	Pending	Chappellet Vineyard	41.9
2004086	August 10, 2007	Richard & Marlene Mansfield	8.15	202000305	Pending	Melanson Vineyard	4.1
200800227	April 2, 2008	Diane Miller	19.90				

Note: ECP = Erosion Control Plan

SOURCE: Data compiled by Napa County in 2020 2021

Page 4-8, the first paragraph is revised to read:

The acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., the 3-mile radius) over the last 27 years (1993–2020) was used to estimate reasonably foreseeable vineyard development for the next three to five years. Over the past 27 years, approximately <u>131</u> <u>117</u> acres of agriculture per year (<u>3,546</u> 3,167 divided by 27) were developed within the 3-mile radius. Considering Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately <u>393–655</u> 351–585 acres within the 3-mile radius over the next three to five years is considered a reasonable estimate...

Page 4-10, the last paragraph is revised to read:

These measures would require establishment of a $\underline{79.3}$ $\underline{79.68}$ -acre Preservation Area that would allow the retention of individuals of multiple special-status plants: holly-leaved ceanothus, Franciscan onion, narrow-flowered California brodiaea, small-flowered calycadenia, two-carpellate western flax, nodding harmonia, Napa Iomatium, and green monardella. The measures would also support the replacement of affected special-status plants at a 1.2:1 ratio (mitigated:affected) and ensure the successful establishment of the replacement plants through monitoring for five years.

Page 4-11, the fourth paragraph is revised to read:

To conservatively estimate the acreage of potential habitat in the cumulative setting, the vineyard acreage developed and approved in the 3-mile radius since 1993 was assumed to consist entirely of potential habitat that would be fully developed, leaving these areas unavailable for propagation by holly-leaved ceanothus populations (3.546 3.167 acres of vineyard within 3 miles of the project site). The results of the calculations indicate that approximately 3,727 acres of potential holly-leaved ceanothus habitat are present within the 3-mile radius that constitutes the cumulative setting for the proposed project. Within the project site itself, 107.18 acres of suitable habitat are present. Approximately 65.24 of those acres are within the clearing limits of the mitigated proposed project. Removing vegetation from within the clearing limits would result in the loss of approximately 1.8 percent of the potentially suitable holly-leaved ceanothus habitat within the 3-mile radius that constitutes the cumulative setting. The percentage would be reduced further with implementation of Mitigation Measure 3.3-1b in Section 3.3, which requires replanting of the removed holly-leaved ceanothus individuals at a 1.2:1 ratio. Thus, a *de minimis* loss of potential habitat would occur with the proposed project.

Page 4-12, the last paragraph is revised to read:

With implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, the project would develop $\underline{90.85}$ $\underline{90.47}$ gross acres of vineyard (Table 3.3-5b). This acreage represents about $\underline{14}$ $\underline{15}$ percent of the total expected to be developed

within the 3-mile radius in the next five years, and approximately 1.8 percent of the total potential vineyard area (5,113 acres) within that radius.

Page 4-15, the second paragraph is revised to read:

The proposed project would be irrigated with groundwater. It is anticipated that the proposed project would use 54.8 acre-feet of groundwater per year during the first four years, while the vines become established, and approximately 45.7 acre-feet of groundwater per year after the fourth year. These amounts are less than the project site's anticipated annual groundwater recharge rate of approximately <u>69.3</u> 84.1 acre-feet per year, and the proposed project would incorporate the County's standard groundwater use condition (as discussed in **Section 3.7**, *Hydrology and Water Quality*). Accordingly, groundwater use on the project site would not be cumulatively considerable, as no net decrease in the groundwater table would occur. The Water Availability Analysis<u>. on pages 22 and 23 of **Appendix J**</u>, demonstrates that under the worst-case scenario (maximum groundwater pumping for the maximum amount of vineyard planting proposed), groundwater recharge would be adequate to meet <u>cumulative impact area</u> project demand. Therefore, the overall cumulative effect is not considerable, and the incremental impact of the proposed project would not be significant when considered in the context of the cumulative projects.

CHAPTER 5, ALTERNATIVES

Page 5-3, the second to last paragraph is revised to read:

Unlike the proposed project, the No Project Alternative would not generate project construction emissions or result in a cumulatively considerable net increase in criteria pollutants, and this alternative would be consistent with the 2017 Clean Air Plan. Therefore, the No Project Alternative would not require implementation of Mitigation Measures 3.2-1a and through 3.2-1be or the open burning condition of approval, as identified for the proposed project, to reduce impacts on air quality to less-than-significant levels. The No Project Alternative would not include activities that would expose sensitive receptors to substantial pollutant concentrations or result in other emissions (such as those leading to odors), adversely affecting a substantial number of people.

Page 5-4, the first and second paragraphs under Section 5.3.2 are revised to read:

The Increased Preservation Alternative includes the <u>79.3</u> 79.68-acre Preservation Area discussed in **Section 3.3**, *Biological Resources*, with implementation of Mitigation Measures 3.3-1a through 3.3-1k, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5. It also would avoid impacts on an additional 6.29 acres of biological communities identified in and near proposed vineyard Blocks V2, V3, V4, V6, W8, X12, Z17, and Z20. As a result, less vineyard area would be developed than under the proposed project.

The Increased Preservation Alternative consists of approximately 64.46 net acres of vineyard within an approximately <u>84.56</u> 84.18-acre cleared area (**Figure 5-1**). As described in **Tables 5-1a** and **5-1b**, approximately <u>85.59</u> 85.97 acres on the project site would not be converted to vineyard.

Page 5-7, Table 5-1b, the row for California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (*Umbellularia californica* Forest Alliance) and the totals are revised to read:

	Mitigated Proposed Vineyard Blocks			Increased Preservation Alternative		
Biological Communities	Acreage ¹	Percent Removed	Acreage Preserved	Acreage ¹	Percent Removed	Acreage Preserved
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (<i>Umbellularia californica</i> Forest Alliance)	<u>17.63</u> 17.25	<u>35</u> 3 4	<u>32.61</u>	<u>17.39</u> 17.01	<u>35</u> 3 4%	<u>32.85</u>
Total	<u>90.85</u> 90.47		<u>79.3</u> 79.68	<u>84.56</u> 84.18		<u>85.59</u> 85.97

Page 5-8, the first sentence of the first paragraph is revised to read:

The Increased Preservation Area Alternative would partially meet the project objectives because it would allow for conversion of a portion of the project site (<u>84.56</u> 84.18 gross acres) to vineyard; minimize soil erosion; protect water quality; minimize impacts on rare, endangered, and candidate plant and animal species to the extent feasible; and develop a vineyard on portions of the project site suitable for the cultivation of high-quality wine grapes.

Page 5-8, the last sentence of the second paragraph is revised to read:

The Increased Preservation Area Alternative would develop approximately 64.46 net acres of vineyard within an approximately <u>84.56</u> 84.18-acre cleared area.

Page 5-8, the first sentence of the third paragraph is revised to read:

The Increased Preservation Area Alternative would include construction and operation and maintenance activities similar to those of the proposed project, although the acreage developed would be less (approximately 64.46 net acres of vineyard within an approximately <u>84.56</u> <u>84.18</u>-acre cleared area).

Page 5-9, the first sentence of the first paragraph is revised to read:

The Increased Preservation Area Alternative would include development of a smaller vineyard and clearing-limits area (31.66 32.04 acres less than under the proposed project).

Page 5-9, the second sentence of the second paragraph is revised to read:

Implementation of Mitigation Measures 3.2-1a <u>and</u> through 3.2-1<u>b</u>e and the open burning condition of approval, as identified for the proposed project, would reduce air quality impacts of the Increased Preservation Area Alternative to a less-than-significant level.

Page 5-10, Table 5-2, the row for California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (*Umbellularia californica* Forest Alliance) and the totals are revised to read:

Biological Communities	Clearing Limits	Total
California Bay–Madrone–Coast Live Oak–(Black Oak Big-Leaf Maple) NFD Super Alliance	<u>3.85</u>	<u>17.39</u> 17.01
Total	<u>20.09</u> 19.71	<u>84.56</u> 84.18

Page 5-11, the second sentence of the second paragraph is revised to read:

(This alternative would involve construction of approximately 64.46 net acres of vineyard within an approximately <u>84.56</u> 84.18-acre cleared area and approximately <u>85.59</u> 85.97 acres of avoided areas.)

Page 5-11, the first sentence of the third paragraph is revised to read:

The Increased Watercourse Setbacks Alternative includes the <u>79.3</u> 79.68-acre Preservation Area discussed in **Section 3.3**, *Biological Resources*, with implementation of Mitigation Measures 3.3-1a through 3.3-1k, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5.

Page 5-11, the fourth paragraph is revised to read:

The Increased Watercourse Setbacks Alternative consists of approximately 63.36 net acres of vineyard within an approximately <u>84.64</u> <u>84.26</u>-acre cleared area (**Figure 5-2**). As described in **Tables 5-3a** and **5-3b**, approximately <u>85.51</u> 85.89 acres on the project site would not be converted to vineyard.

Page 5-14, Table 5-3B, the row for California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (*Umbellularia californica* Forest Alliance) and the totals are revised to read:

	Mitigated Proposed Vineyard Blocks			Increased Watercourse Alternative		
Biological Communities	Acreage ¹	Percent Removed	Acreage Preserved	Acreage ¹	Percent Removed	Acreage Preserved
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (<i>Umbellularia californica</i> Forest Alliance)	<u>17.63</u> 17.25	<u>35</u> 3 4	<u>32.61</u>	<u>17.08</u> 16.70	<u>34.00</u>	<u>3.16</u>
Total	<u>90.85</u> 90.47		<u>79.3</u> 79.68	<u>84.64</u> 84.26		<u>85.51</u> 85.89

Page 5-15, the first sentence of the first paragraph is revised to read:

The Increased Watercourse Setbacks Alternative would partially meet the project objectives, as it would allow conversion of a portion of the project site (<u>84.64</u> 84.26 gross acres) to vineyard; minimize soil erosion; protect water quality; minimize impacts on rare, endangered, and candidate plant and animal species to the extent feasible; and develop a vineyard on portions of the project site suitable for the cultivation of high-quality wine grapes.

Page 5-15, the last sentence of the second paragraph is revised to read:

The alternative would include the development of approximately 63.36 net acres of vineyard within an approximately <u>84.64</u> 84.26-acre cleared area.

Page 5-15, the first sentence of the third paragraph is revised to read:

The Increased Watercourse Setbacks Alternative would include construction and operation and maintenance activities similar to those of the proposed project, although the acreage developed would be less (approximately 63.36 net acres of vineyard within an approximately <u>84.64</u> 84.26-acre cleared area).

Page 5-16, the second sentence of the second paragraph is revised to read:

Implementation of Mitigation Measures 3.2-1a <u>and</u> through 3.2-1<u>b</u>e and the open burning condition of approval, as identified for the proposed project, would reduce air quality impacts of the Increased Watercourse Setbacks Alternative to a less-than-significant level.

Page 5-17, Table 5-4, the row for California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (*Umbellularia californica* Forest Alliance) and the totals are revised to read:

Biological Communities	Clearing Limits	Total	
California Bay–Madrone–Coast Live Oak–(Black Oak Big-Leaf Maple) NFD Super Alliance	<u>4.01</u>	<u>17.08</u> 16.70	
Total	<u>21.28</u>	<u>84.64</u> 84.26	

Page 5-18, the second sentence of the second paragraph is revised to read:

(This alternative would involve construction of approximately 63.36 net acres of vineyard within an approximately <u>84.64</u> 84.26-acre cleared area and approximately <u>85.51</u> 85.89 acres of avoided areas.)

CHANGES TO FIGURES

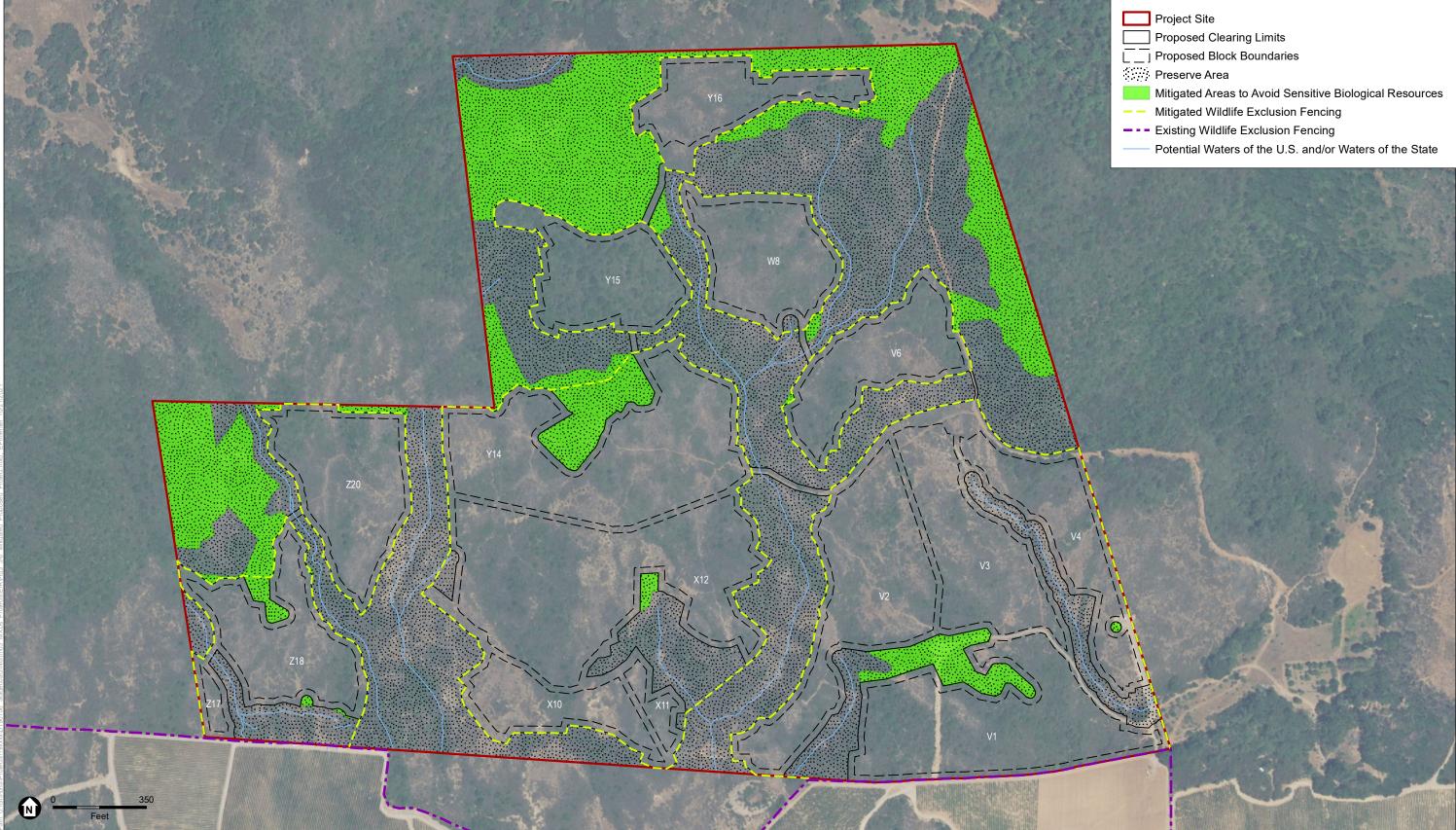
Figures 3.3-6 (*Mitigated Proposed Project*), 3.3-7 (*Special-Status Plant Species Avoided with Mitigation Measures*), 5-1 (*Increased Preservation Alternative*), and 5-2 (*Increased Watercourse Setbacks Alternative*) are revised to add back in proposed Detention Basin #2 in Block Y16 (approximately 0.4 acre). The mitigated wildlife exclusion fencing was also updated on Figure 3.3-6 and the existing fencing was added to this figure. Colored shading was also added to Figures 5-1 and 5-2 to clarify the mitigation areas removed (green shading) and the additional areas removed due to the alternative (pink shading).

Figure 4-1, *Cumulative ECP Projects within Three Miles of the Proposed Project*, is revised to show the cumulative ECP projects within three miles of the proposed project excluding replanting plans and ECPA modifications that did not add new vineyard.

All revised Draft EIR figures are included at the end of this chapter.

CHANGES TO APPENDICES

Appendix C, *Air Quality Modeling Results and Carbon Sequestration Analysis*, is revised to update the modeling to take into account the smaller footprint of the mitigated proposed project (approximately 91 acres), as described in Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 and noted in Impact 3.2-1, as well as the phasing of construction proposed in two phases as described in Draft EIR Mitigation Measure 3.3-1j, as compared to a single phase originally proposed in the Draft EIR project description. The revised estimates also account for the reduction in equipment fleet needed to conduct the construction activities as well as the reduced activity level (hours per day of use) for each equipment based on the reduced construction footprint. The start year for construction was also updated from 2021 to 2022. The carbon storage factor for the chamise alliance was also updated in the Appendix C memorandum and a conservative assumption that all brush cleared from the site would be burned was added.

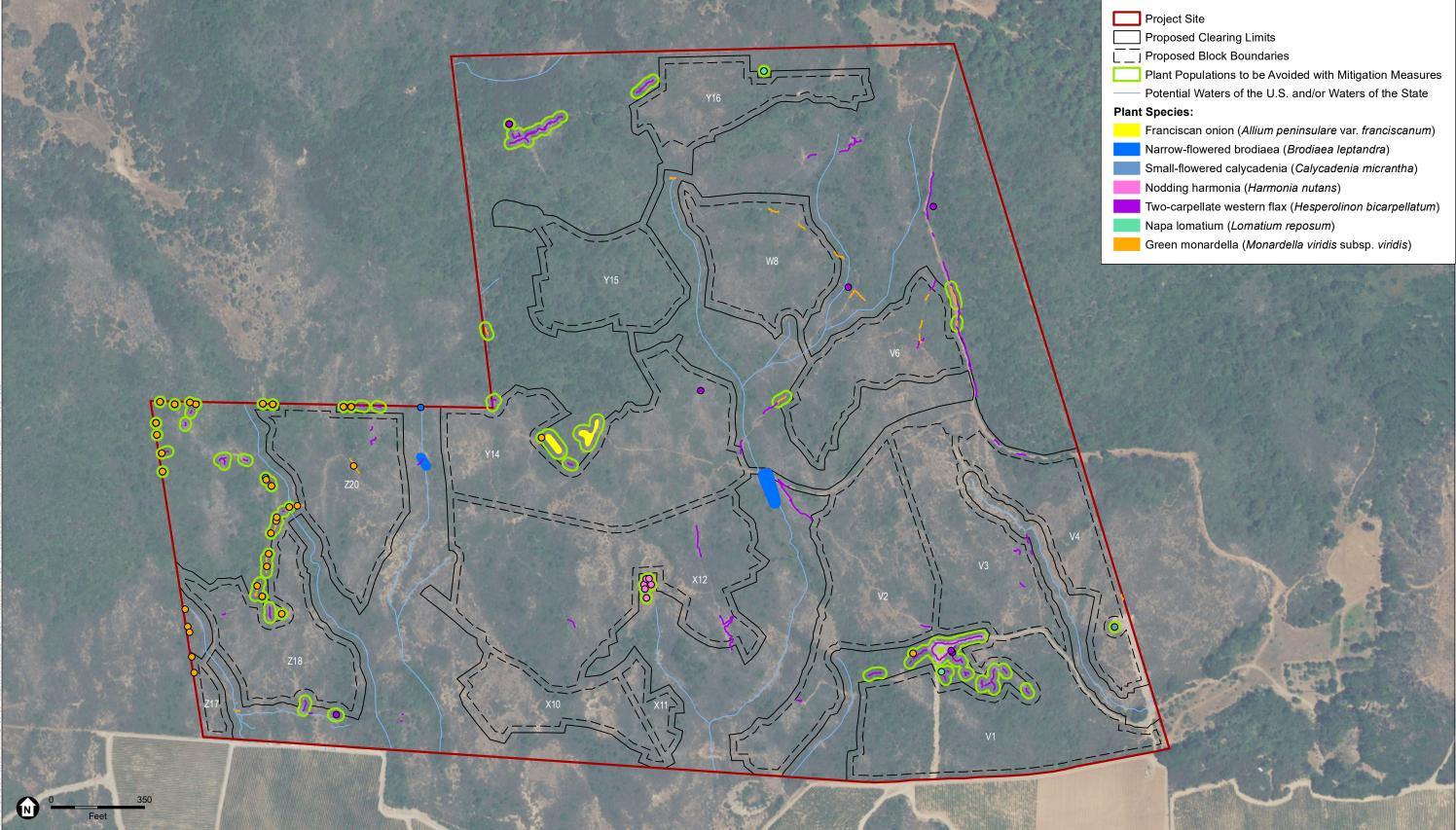


SOURCE: SOURCE: USDA, 2018; PPI Engineering, 2021; LSA, 2021; ESA, 2021



Stagecoach North Vineyard Conversion #P18-00446-ECPA

Figure 3.3-6 Mitigated Proposed Project

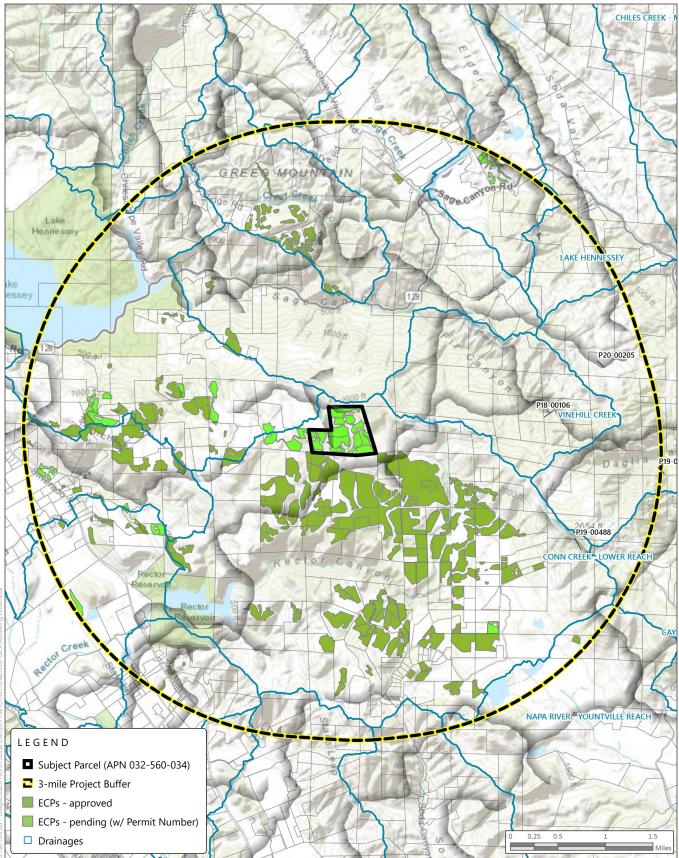


SOURCE: SOURCE: USDA, 2018; PPI Engineering, 2021; LSA, 2021; ESA, 2021

Project Site Proposed Clearing Limits
Proposed Block Boundaries
Plant Populations to be Avoided with Mitigation Measures
Potential Waters of the U.S. and/or Waters of the State
Plant Species:
Franciscan onion (Allium peninsulare var. franciscanum)
Narrow-flowered brodiaea (Brodiaea leptandra)
Small-flowered calycadenia (Calycadenia micrantha)
Nodding harmonia (Harmonia nutans)
Two-carpellate western flax (Hesperolinon bicarpellatum)
Napa lomatium (<i>Lomatium reposum</i>)
Green monardella (<i>Monardella viridis</i> subsp. viridis)

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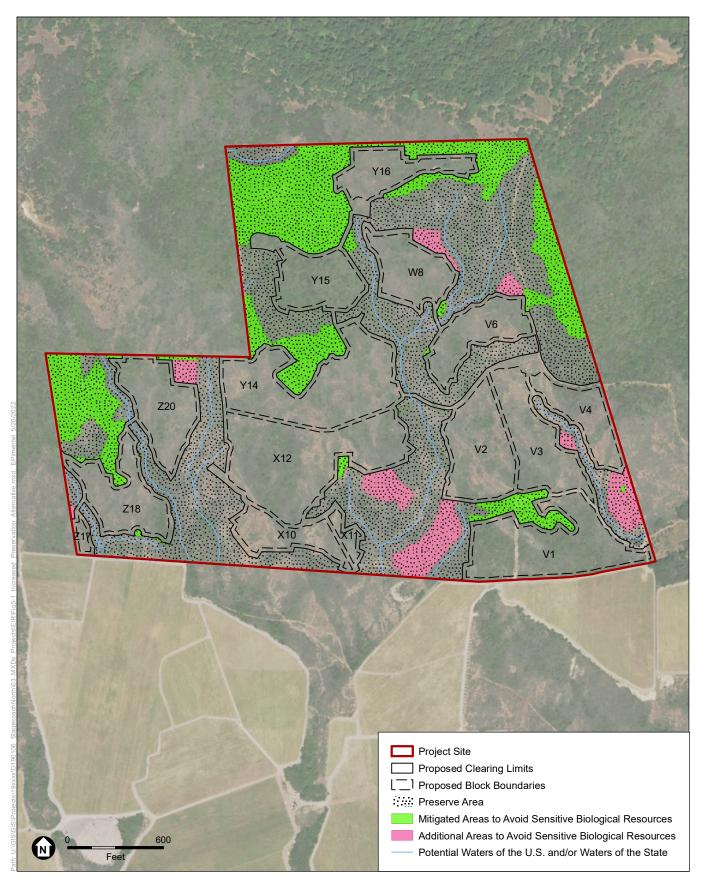
Figure 3.3-7 Special-Status Plant Species Avoided with Mitigation Measures



SOURCE: Napa County 2021

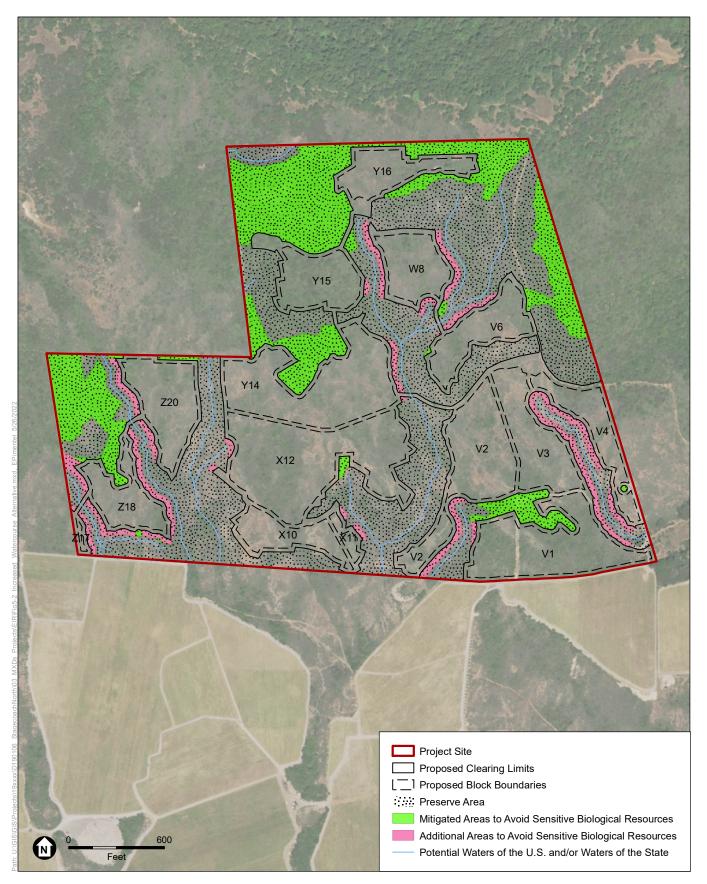
ESA

Stagecoach North Vineyard Conversion #P18-00446-ECPA



SOURCE: USDA, 2018; PPI Engineering, 2021; LSA, 2021; ESA, 2022

Stagecoach North Vineyard Conversion #P18-00446-ECPA



SOURCE: USDA, 2018; PPI Engineering, 2021; LSA, 2021; ESA, 2022

Stagecoach North Vineyard Conversion #P18-00446-ECPA

Appendix C Air Quality Modeling Results and Carbon Sequestration Analysis

CONSTRUCTION DATA

Original Project

Total Area Graded	116.2 acres
Number of Phases	1

Construction Schedule

Start Date	End Date	Days/Week	Total Workdays
4/1/2021	9/15/2021	6	144

Project Construction Equipment

Project Construction Equipment	Equivalent Equipment in CalEEMod	Number of Equipment	Workdays used in Phase	Hours per Workday	Average horsepower (hp)	Load Factor
Large Excavator	Excavators	2	144	7	400	0.38
Medium Excavator	Excavators	1	144	7	158	0.38
D9 Bulldozer	Rubber Tired Dozer	2	144	7	474	0.40
D8 Bulldozer	Rubber Tired Dozer	1	144	7	359	0.40
D6 Bulldozer	Rubber Tired Dozer	1	144	7	215	0.40
Haul Truck	Off-Highway Trucks	2	144	7	402	0.38
Loader	Rubber Tired Loaders	2	144	7	203	0.36
Water Truck	Off-Highway Trucks	1	144	7	402	0.38
Farm Tractor with Trailer	Off-Highway Tractors	4	144	7	124	0.44
Total Emissions		16				

Project Operation Equipment

Project Construction Equipment	Equivalent Equipment in OFFROAD	Number of Equipment	Hours per day	Average horsepower (hp) from CalEEMod	Load Factor
Farm Tractor with Trailer	Off-Highway Tractors	4	10	124	0.44

On-road Truck and Worker Commute Trips during Construction

Construction Phase	Ave. trips/day (round trips)	One way trips/day	One Way Trip length (miles)	Truck Trip miles per day
Truck trips to deliver and remove	2	4	14	56
construction equipment Worker commute trips	10	20	14	280

CONSTRUCTION EMISSIONS - Original Project

Criteria Air Pollutants - Uncontrolled

	Tons over Construction Period			ŀ	Average Po	unds per da	ay	
	Exhaust PM- Exhaust					Exhaust	Exhaust	
No. of Construction Days	ROG	NOx	10	PM-2.5	ROG	NOx	PM-10	PM-2.5
144	0.6343	6.3141	0.2698	0.2482	8.8	87.7	3.7	3.4

Greenhouse Gases as CO₂e

Construction equipment	890.6
Water Use during Construction	0.6
Total CO ₂ e (tons)	891.2
Life of project (years)	30
Ave. annual emissions (tons/year)	29.7

GHG Emissions from Water Use for Dust Suppression during Construction

Water Use	Acre-feet/year	gal/year	Mgal/year
Project	4.6	1498915	1.4989146

From CalEEMod,

Electricity Intensity Factor to supply	2117	kWhr/Mgal
Electricity Intensity Factor to treat	111	kWhr/Mgal
Electricity Intensity Factor to distribute	1272	kWhr/Mgal
Total Electricity Intensity Factor for Water	3500	kWhr/Mgal

	CO ₂	CH ₄	N ₂ O	
PG&E GHG emission factor (lb/MWhr)	210	0.029	0.006	
PG&E GHG emission factor (lb/kWhr)	0.21	0.000029	0.000006	
GW potential	1	25	298	
GHG emissions from water use (tons /year)	= Mgal/year X kW	/hr/Mgal X lb/k	Whr x 0.0005	CalEEMod Users Guide, Appendx A - Page 41
Grid emissions from water use (tons / year)	0.6	0.0	0.0	
GHG emissions from water use (tons of CO ₂ e/year)	0.6	0.002	0.005	
Total tons of CO ₂ e/year	0.6			-

CONSTRUCTION EMISSIONS - Mitigated Project

Criteria Air Pollutants - Uncontrolled

	Tons over Construction Period			on Period Average Pounds per day				
	Exhaust Exhaust					Exhaust	Exhaust PM	
No. of Construction Days	ROG	NOx	PM-10	PM-2.5	ROG	NOx	PM-10	2.5
100	0.1887	1.7682	0.0753	0.0693	3.8	35.5	1.5	1.4

Greenhouse Gases as CO₂e

Construction equipment	299.1
Water Use during Construction	0.6
Total CO ₂ e (tons)	299.7
Life of project (years)	30
Ave. annual emissions (tons/year)	10.0

GHG Emissions from Water Use for Dust Suppression during Construction

Water Use	Acre-feet/year	gal/year	Mgal/year
Project	4.6	1498915	1.4989146

From CalEEMod,	
----------------	--

Electricity Intensity Factor to supply	2117	kWhr/Mgal
Electricity Intensity Factor to treat	111	kWhr/Mgal
Electricity Intensity Factor to distribute	1272	kWhr/Mgal
Total Electricity Intensity Factor for Water	3500	kWhr/Mgal

	CO ₂	CH ₄	N ₂ O	
PG&E GHG emission factor (lb/MWhr)	210	0.029	0.006	
PG&E GHG emission factor (lb/kWhr)	0.21	0.000029	0.000006	
GW potential	1	25	298	
GHG emissions from water use (tons /year)	= Mgal/year X kW	/hr/Mgal X l	b/kWhr x 0.0	CalEEMod Users Guide, Appendx A - Pag
and emissions from water use (tons / year)	0.6	0.0	0.0	
GHG emissions from water use (tons of CO ₂ e/year)	0.6	0.002	0.005	
Total tons of $CO_2e/year$	0.6			

OPERATIONAL EMISSIONS

Calculation of workdays

			No. of
Season	Start	End	workdays
January & February	1-Jan	28-Feb	41
June - August	1-Jun	31-Aug	66
September & October	1-Sep	31-Oct	43
November - December	1-Nov	31-Dec	44
January - April	1-Jan	30-Apr	85

Calculation of annual on-road vehicle miles

Source	Workers/day	One way trips/day	Number of workdays	
January & February				
Workers - Annual pruning of vines	20	14	41	
June - August				
Workers - Chemical, mechanical and manual weed control, sulfur applications to protect against mildew	15	11	66	
September & October				
Workers - Harvest, Winterization of vineyard, vineyard avenues, and vineyard roads	34	24	43	
November - April				
Monitoring & maintenance of erosion control measures	15	11	129	
Total annual		3676	334	
Average trips/day over the year - workers		12		
Truck trips/day - grape hauling during harvest		4		
Average truck trips/day over the year		1		

Fleet Mix Assumed LDA 0.46154 LDT1 0.46154 HHD 0.07692

Operational Emissions - CAP - Original Project

	Tons per year			Pounds per day				
Emissions Source			Total PM-	Total PM-			Total	Total
	ROG	NOx	10	2.5	ROG	NOx	PM-10	PM-2.5
Mobile - worker and truck trips	4.5E-03	0.04	0.02	5.8E-03	0.02	0.21	0.12	0.03
Generator	0.01	0.27	0.01	0.01	0.1	1.5	4.6E-02	4.5E-02
Offroad Equipment	0.14	1.40	0.07	0.06	0.8	7.7	0.4	0.3
TOTAL	0.16	1.71	0.10	0.08	0.9	9.3	0.5	0.4

Operational Emissions - GHG - Original Project

Source	CO ₂ e
500102	(tons/year)
Mobile - worker and truck trips	23.2
Onsite equipment - 4 tractors	270.5
Generator	28.3
TOTAL	322.0

Operational Emissions - CAP - Mitigated Project

		Tons per year			Pounds per day			
Emissions Source			Total PM	Total PM-			Total PM-	Total PM
	ROG	NOx	10	2.5	ROG	NOx	10	2.5
Mobile - worker and truck trips	3.3E-03	0.03	0.02	5.7E-03	0.02	0.14	0.12	0.03
Generator	0.01	0.27	0.01	0.01	0.1	1.5	4.6E-02	4.5E-02
Offroad Equipment	0.11	0.83	0.04	0.04	0.6	4.6	0.2	0.2
TOTAL	0.13	1.13	0.07	0.05	0.7	6.2	0.4	0.3

Operational Emissions - GHG - Mitigated Project

Source	(tons/yea
Mobile - worker and truck trips	21.1
Onsite equipment - 4 tractors	268.0
Generator	28.3
TOTAL	317.4

Stagecoach North Soda Canyon Vineyard

Generator Emissions			
Conversion Factors			
HP/kW	1.3410		
PM ₁₀ Fraction of Total PM	0.960	Table A - Updated CEIE	DARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION
PM _{2.5} Fraction of Total PM	0.937	Table A - Updated CEIE	DARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION
CO ₂ kg/gal	10.21	Climate Registry, Table	13.1: https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf
CH ₄ g/gal	0.58	Climate Registry, Table	13.7: https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf
N ₂ O g/gal	0.26	Climate Registry, Table	13.7: https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf
GWP CH ₄	25	IPCC AR4, https://ww2	.arb.ca.gov/ghg-gwps
GWP N ₂ O	298	IPCC AR4, https://ww2	.arb.ca.gov/ghg-gwps
CO ₂ e g/gal	10,302		
CO ₂ g/gal	10,210		
CO ₂ /CO ₂ e	0.9911		
Generator Rating:	75	kW	(Source: Project Description)
	101		(based on conservative engineering assumptions; conversion from kW to hp)
Load Factor:	0.74		(based on CalEEMod Generator Set Load Factor)
Engine Emissions Tier:			(compliance with CARB diesel regulations)
Operating Hours per Unit:	714	hours/year	
	1.96	hours/day	

Units			Criteria Pollutants 1,3	2		Greenhouse Gases ³			
Units	VOC	NO _X	со	PM ₁₀	PM _{2.5}	CO ₂	CO ₂ e		
g/kW-hr	-	-	3.50	-	-	_	-		
g/HP-hr	0.15	2.85	2.61	0.1440	0.1406	526.17	530.91		
lbs/hr	0.04	0.75	0.43	0.02	0.02	86.70	87.48		
lbs/day (average daily)	0.08	1.47	0.84	0.05	0.05	169.60	171.12		
lbs/yr	28.24	536.48	307.06	16.94	16.54	61,902.66	62,460.33		
tons/yr	0.01	0.27	0.15	0.01	0.01	30.95	31.23		
metric tons/yr —		-	-	-	-	28.08	28.33		

Notes:

1. Emission factors for VOC and NOX: ARB 2011 Final Regulation Order for the ATCM for stationary engines, Table 1, Model year 2008+: https://www.arb.ca.gov/regact/2010/atcm2010/finalregorder.pdf; Policy: CARB Emission Factors for CI Diesel Engines – Percent HC in Relation to NMHC + NOX: http://www.baaqmd.gov/~/media/Files/Engineering/policy_and_procedures/Engines/EmissionFactorsforDieselEngines.ashx

2. Emission factors for CO, PM₁₀, and PM₂₅: ARB 2011 Final Regulation Order for the ATCM for stationary engines, Table 1, Model year 2008+: https://www.arb.ca.gov/regact/2010/atcm2010/finalregorder.pdf

3 Emission factor for CO₂: U.S. Environmental Protection Agency, AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Section 3.4, Table 3.4-1.

Emissions of GHGs assume 99.11% of the CO₂e emissions occur as CO₂, based on Climate Registry emission factors as referenced above.

Source: ESA 2020.

Table 1: Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines g/bhp-hr (g/kW-hr)													
Maximum Engine Power	Model year(s)	PM	NMHC+NOx	<u>co</u>									
50 ≤ HP < 75 (37 ≤ kW < 56)	2007 2008+	0.15 (0.20)	5.6 (7.5) 3.5 (4.7)	<u>3.7 (5.0)</u>									
<u>75 ≤ HP < 100</u> (56 ≤ kW < 75)	2007 2008+	0.15 (0.20)	<u>5.6 (7.5)</u> <u>3.5 (4.7)</u>	<u>3.7 (5.0)</u>									
100 ≤ HP < 175 (75 ≤ KW < 130)	2007 2008+	0.15 (0.20)	3.0 (4.0)	<u>3.7 (5.0)</u>									
175 ≤ HP < 300 (130 ≤ kW < 225)	<u>2007</u> 2008+	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)									
<u>300 ≤ HP < 600</u> (225 ≤ kW < 450)	<u>2007</u> 2008+	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)									
600 ≤ HP < 750 (450 ≤ kW < 560)	<u>2007</u> 2008+	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)									
<u>HP > 750</u> (kW > 560)	<u>2007</u> <u>2008+</u>	0.15 (0.20)	4.8 (6.4)	<u>2.6 (3.5)</u>									

May be subject to additional emission limitations as specified in current applicable district rules, regulations or policies. Page 1 of 1

Stagecoach North EIR - Napa County, Annual

Stagecoach North EIR

Napa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.00	User Defined Unit	116.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days) 64		
Climate Zone	4			2022			
Utility Company	Pacific Gas & Electric C	ompany					
CO2 Intensity (Ib/MWhr)	294	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006		

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E GHG emission factor based on https://www.pgecurrents.com/2018/03/26/independent-registry-confirms-record-lowcarbon-emissions-for-pge/ Land Use - Are of land cleared Construction Phase - Project schedule Off-road Equipment - Phase not used Off-road Equipment - Equipment list from applicant Off-road Equipment - Phase not used Off-road Equipment - Phase not used Trips and VMT - Project data

Grading - Area to be cleared

Vehicle Trips - Operational trip data

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 Final equipment for mitigation

Operational Off-Road Equipment - Operational equipment

Fleet Mix - Adjusted to include only worker (50% LDA and 50% LDT1 assumed) and grape hauling truck trips

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	120.00	0.00
tblConstructionPhase	NumDays	200.00	0.00
tblConstructionPhase	NumDays	310.00	144.00
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	NumDays	3,100.00	0.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFleetMix	HHD	0.04	0.08
tblFleetMix		0.59	0.46
tblFleetMix	LDT1	0.04	0.46
		ññ	

tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.0000e-003	0.00
tblFleetMix	MCY	5.4970e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	9.8800e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	3.8800e-003	0.00
tblFleetMix	SBUS	1.0270e-003	0.00
tblFleetMix	UBUS	1.8010e-003	0.00
tblGrading	AcresOfGrading	0.00	116.00
tblLandUse	LotAcreage	0.00	116.00
tblOffRoadEquipment	HorsePower	158.00	400.00
tblOffRoadEquipment	HorsePower	247.00	474.00
tblOffRoadEquipment	HorsePower	247.00	215.00
tblOffRoadEquipment	HorsePower	247.00	359.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
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tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	10.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	294
tblTripsAndVMT	VendorTripLength	7.30	14.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripLength	10.80	14.00
tblTripsAndVMT	WorkerTripNumber	40.00	20.00
tblVehicleTrips	CC_TL	7.30	14.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	13.00
tblVehicleTrips	WD_TR	0.00	13.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					tons	s/yr							MT	/yr		
2021	0.6343	6.3141	4.8641	0.01	1.218	0.2698	1.4878	0.6372	0.2482	0.8854	0	883.6663	883.6663	0.2785	0	890.6281
Maximum	0.6343	6.3141	4.8641	0.01	1.218	0.2698	1.4878	0.6372	0.2482	0.8854	0	883.6663	883.6663	0.2785	0	890.6281

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					tons	s/yr							MT	/yr		
2021	0.1275	0.5675	4.9112	0.01	1.218	0.0162	1.2342	0.6372	0.0162	0.6534	0	883.6653	883.6653	0.2785	0	890.6271
Maximum	0.1275	0.5675	4.9112	0.01	1.218	0.0162	1.2342	0.6372	0.0162	0.6534	0	883.6653	883.6653	0.2785	0	890.6271

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	79.90	91.01	-0.97	0.00	0.00	94.00	17.04	0.00	93.48	26.20	0.00	0.00	0.00	0.00	0.00	0.00
Quarter	St	art Date	En	d Date	Maximu	m Unmitiga	ited ROG ·	+ NOX (tons	/quarter)	Maxi	mum Mitigat	ed ROG +	NOX (tons/q	juarter)		

1	4-1-2021	6-30-2021	3.7630	0.3758
2	7-1-2021	9-30-2021	3.1841	0.3180
		Highest	3.7630	0.3758

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Area	0	0	1.00E-05	0		0	0		0	0	0	2.00E-05	2.00E-05	0	0	2.00E-05
Energy	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Mobile	4.51E-03	0.0376	0.0715	2.50E-04	0.021	2.20E-04	0.0212	5.60E-03	2.00E-04	5.80E-03	0	23.145	23.145	9.10E-04	0	23.1676
Offroad	0.1446	1.4003	1.9927	3.05E-03		0.0671	0.0671		0.0617	0.0617	0	268.2844	268.2844	0.0868	0	270.4536
Waste						0	0		0	0	0	0	0	0	0	0
Water						0	0		0	0	0	0	0	0	0	0
Total	0.1491	1.4379	2.0642	3.3000e- 003	0.0210	0.0673	0.0883	5.6000e- 003	0.0619	0.0675	0.0000	291.4294	291.4294	0.0877	0.0000	293.6212

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhau PM2.			Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr								M	ſ/yr		
Area	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.000	0.00	00	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1	0.000	0.00	00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	4.5100e- 003	0.0376	0.0715	2.5000e- 004	0.0210	2.2000e- 004	0.0212	5.6000e- 003	2.0000 004	e- 5.800 00		0.0000	23.1450	23.1450	9.1000e- 004	0.0000	23.1676
Offroad	0.1446	1.4003	1.9927	3.0500e- 003		0.0671	0.0671		0.061	7 0.06	17	0.0000	268.2844	268.2844	0.0868	0.0000	270.4536
Waste						0.0000	0.0000		0.000	0.00	00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.000	0.00	00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1491	1.4379	2.0642	3.3000e- 003	0.0210	0.0673	0.0883	5.6000e- 003	0.061	9 0.06	75	0.0000	291.4294	291.4294	0.0877	0.0000	293.6212
	ROG	Ν	Ox C	:0 S	_				•	xhaust PM2.5	PM2. Tota		CO2 NBio	-CO2 To CC		14 N:	20 C(
Percent Reduction	0.00	0.	.00 0	.00 0.	00 0.	.00 0	.00 0	.00	0.00	0.00	0.00	0.0	0 0.0	00 0.0	0.0	00 0.	00 0.

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/6/2021	1/5/2021	5	0	
2	Demolition	Demolition	4/1/2021	3/31/2021	5	0	
3	Grading	Grading	4/1/2021	9/15/2021	6	144	
4	Architectural Coating	Architectural Coating	5/22/2021	5/21/2021	5	0	
5	Paving	Paving	7/19/2021	7/18/2021	5	0	
6	Building Construction	Building Construction	8/31/2021	8/30/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 116

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Rubber Tired Dozers Tractors/Loaders/Backhoes	0	0.00	247	
Tractors/Loaders/Backhoes			241	
	0	0.00	97	0.37
Concrete/Industrial Saws	0	0.00	81	0.73
Excavators	0	0.00	158	
Rubber Tired Dozers	0	0.00	247	
Excavators	1			
Excavators	2		400	0.38
Graders	0	0.00	187	0.41
Off-Highway Tractors	4	7.00	124	
Off-Highway Trucks	3	7.00	402	0.38
Rubber Tired Dozers	2	7.00		0.10
Rubber Tired Dozers	1	7.00		0.40
Rubber Tired Dozers	1	7.00	359	0.40
Rubber Tired Loaders	2	7.00	203	
Scrapers	0	0.00	367	0.48
Tractors/Loaders/Backhoes	0	0.00	97	0.01
Air Compressors			78	
Pavers	0	0.00	130	0.42
Paving Equipment	0	0.00	132	
Rollers	0	0.00	80	0.38
Cranes	0	0.00	231	0.29
Forklifts				
	Excavators Rubber Tired Dozers Excavators Excavators Excavators Graders Off-Highway Tractors Off-Highway Trucks Rubber Tired Dozers Rubber Tired Dozers Rubber Tired Dozers Rubber Tired Loaders Scrapers Tractors/Loaders/Backhoes Air Compressors Pavers Paving Equipment Rollers Cranes	Excavators0Rubber Tired Dozers0Excavators1Excavators2Graders0Off-Highway Tractors4Off-Highway Trucks3Rubber Tired Dozers2Rubber Tired Dozers1Rubber Tired Dozers0Pavers0Rollers0Rollers0Cranes0	Excavators00.00Rubber Tired Dozers00.00Excavators17.00Excavators27.00Graders00.00Off-Highway Tractors47.00Off-Highway Tractors37.00Rubber Tired Dozers27.00Rubber Tired Dozers17.00Rubber Tired Dozers17.00Rubber Tired Dozers17.00Rubber Tired Dozers27.00Rubber Tired Dozers17.00Rubber Tired Dozers00.00Ar Compressors00.00Pavers00.00Paving Equipment00.00Rollers00.00Cranes00.00	Excavators00.00158Rubber Tired Dozers00.00247Excavators17.00158Excavators27.00400Graders00.00187Off-Highway Tractors47.00124Off-Highway Tractors27.00402Rubber Tired Dozers27.00402Rubber Tired Dozers17.00215Rubber Tired Dozers17.00215Rubber Tired Dozers27.00359Rubber Tired Loaders27.00367Tractors/Loaders/Backhoes00.0078Pavers00.00130Paving Equipment00.00367Rulers00.00369Cranes00.00369

Building Construction	Generator Sets	0	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	0	0.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	20.00	4.00	0.00	14.00	14.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Phase not used

3.3 Demolition - 2021

Phase not used

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Fugitive Dust					1.1997	0.0000	1.1997	0.6323	0.0000	0.6323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6265	6.2653	4.8058	9.7700e- 003		0.2696	0.2696		0.2480	0.2480	0.0000	858.4994	858.4994	0.2777	0.0000	865.4408

Total	0.6265	6.2653	4.8058	9.7700e-	1.1997	0.2696	1.4692	0.6323	0.2480	0.8803	0.0000	858.4994	858.4994	0.2777	0.0000	865.4408
				003												

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e- 003	0.0443	0.0116	1.3000e- 004	3.6100e- 003	1.3000e- 004	3.7400e- 003	1.0400e- 003	1.2000e- 004	1.1700e- 003	0.0000	12.9517	12.9517	5.1000e- 004	0.0000	12.9643
Worker	6.2500e- 003	4.5200e- 003	0.0467	1.4000e- 004	0.0148	1.0000e- 004	0.0148	3.9200e- 003	9.0000e- 005	4.0100e- 003	0.0000	12.2152	12.2152	3.1000e- 004	0.0000	12.2229
Total	7.7500e- 003	0.0488	0.0583	2.7000e- 004	0.0184	2.3000e- 004	0.0186	4.9600e- 003	2.1000e- 004	5.1800e- 003	0.0000	25.1669	25.1669	8.2000e- 004	0.0000	25.1872

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Fugitive Dust					1.1997	0.0000	1.1997	0.6323	0.0000	0.6323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1197	0.5187	4.8529	9.7700e- 003		0.0160	0.0160		0.0160	0.0160	0.0000	858.4984	858.4984	0.2777	0.0000	865.4398
Total	0.1197	0.5187	4.8529	9.7700e- 003	1.1997	0.0160	1.2156	0.6323	0.0160	0.6482	0.0000	858.4984	858.4984	0.2777	0.0000	865.4398

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e- 003	0.0443	0.0116	1.3000e- 004	3.6100e- 003	1.3000e- 004	3.7400e- 003	1.0400e- 003	1.2000e- 004	1.1700e- 003	0.0000	12.9517	12.9517	5.1000e- 004	0.0000	12.9643

Worker	6.2500e-	4.5200e-	0.0467	1.4000e-	0.0148	1.0000e-	0.0148	3.9200e-	9.0000e-	4.0100e-	0.0000	12.2152	12.2152	3.1000e-	0.0000	12.2229
	003	003		004		004		003	005	003				004		
Total	7.7500e-	0.0488	0.0583	2.7000e-	0.0184	2.3000e-	0.0186	4.9600e-	2.1000e-	5.1800e-	0.0000	25.1669	25.1669	8.2000e-	0.0000	25,1872
	003			004		004		003	004	003				004		

3.5 Architectural Coating - 2021

Phase not used

3.6 Paving - 2021

Phase not used

3.7 Building Construction - 2021

Phase not used

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	4.5100e- 003	0.0376	0.0715	2.5000e- 004	0.0210	2.2000e- 004	0.0212	5.6000e- 003	2.0000e- 004	5.8000e- 003	0.0000	23.1450	23.1450	9.1000e- 004	0.0000	23.1676
Unmitigated	4.5100e- 003	0.0376	0.0715	2.5000e- 004	0.0210	2.2000e- 004	0.0212	5.6000e- 003	2.0000e- 004	5.8000e- 003	0.0000	23.1450	23.1450	9.1000e- 004	0.0000	23.1676

4.2 Trip Summary Information

	Avera	age Daily Trip I	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	13.00	13.00	0.00	56,784	56,784
Total	13.00	13.00	0.00	56,784	56,784

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

User Defined Recreational	9.50	14.00	7.30	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.461538	0.461538	0.000000	0.000000	0.000000	0.000000	0.000000	0.076923	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT.	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							МТ	/yr		
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

I	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
																	1

Land Use	kBTU/yr					tons	/yr						МТ	ſ/yr		
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MI	Г/yr	
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	ſ/yr	
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		tons/yr											MT	/yr		
Mitigated	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005

Unmitigated	0.0000	0.0000	1.0000e-	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-	2.0000e-	0.0000	0.0000	2.0000e-
onnigatou	0.0000	0.0000		0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000	0.0000	E
			005		1							005	005		1	005
	8		0000		1								000		1	000
					-	-	-	-	-	-	-	-		-	-	

6.2 Area by SubCategory

<u>Unmitigated</u>

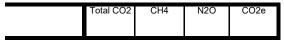
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					tons	s/yr							MT	/yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					tons	s/yr							MT	/yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005

7.0 Water Detail

7.1 Mitigation Measures Water



Category	MT/yr									
Mitigated	0.0000	0.0000	0.0000	0.0000						
Unmitigated	0.0000	0.0000	0.0000	0.0000						

7.2 Water by Land Use

Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	ſ/yr	
User Defined Recreational	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

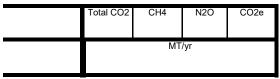
Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	ſ/yr	
User Defined Recreational	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year



Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e					
Land Use	tons	MT/yr								
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000					
Total		0.0000	0.0000	0.0000	0.0000					

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	ſ/yr	
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Tractors	4	10.00	260	124	0.44	Diesel

UnMitigated/Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type					tons	s/yr							MT	/yr		

Off-Highway Tractors	0.1446	1.4003	1.9927	3.0500e- 003	0.0671	0.0671	0.0617	0.0617	0.0000	268.2844	268.2844	0.0868	0.0000	270.4536
Total	0.1446	1.4003	1.9927	3.0500e- 003	0.0671	0.0671	0.0617	0.0617	0.0000	268.2844	268.2844	0.0868	0.0000	270.4536

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
Number					
	Number	Number Heat Input/Day	Number Heat Input/Day Heat Input/Year	Number Heat Input/Day Heat Input/Year Boiler Rating	Number Heat Input/Day Heat Input/Year Boiler Rating Fuel Type

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

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Stagecoach North EIR - Mitigated Project - Phase 1 - Napa County, Annual

Stagecoach North EIR - Mitigated Project - Phase 1

Napa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.00	User Defined Unit	45.45	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas & Electric C	ompany			
CO2 Intensity (Ib/MWhr)	210	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated factor based on CalEEMod 2020.4.0 Land Use - Area graded in Phase 1 of mitigated project Construction Phase - Construction schedule for Phase 1 of mitigated project per updated data Off-road Equipment - Phase not included Off-road Equipment - Phase not included Off-road Equipment - Revised equipment list provided for each phase of mitigated project Grading - Phase 1 graded area Trips and VMT - Project data Vehicle Trips - Operational trip data upon completion of both phases Fleet Mix - Adjusted to include only worker trips (50% LDA and 50% LDT1 assumed) and grape hauling truck trips

Energy Use -

Operational Off-Road Equipment - Operational equipment data

Construction Off-road Equipment Mitigation - Tier 4 Final equipment as mitigation, if needed

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	0.00
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tblConstructionPhase	NumDays	50.00	0.00
tblConstructionPhase	NumDays	75.00	100.00
tblConstructionPhase	NumDays	55.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	2/6/2026	11/21/2025
tblConstructionPhase	PhaseEndDate	9/5/2025	11/4/2022
tblConstructionPhase	PhaseEndDate	6/10/2022	4/3/2022
tblConstructionPhase	PhaseEndDate	11/4/2022	7/28/2022
tblConstructionPhase	PhaseEndDate	11/21/2025	9/5/2025
tblConstructionPhase	PhaseEndDate	7/22/2022	6/10/2022
tblConstructionPhase	PhaseStartDate	7/23/2022	4/4/2022
tblFleetMix	HHD	0.04	0.08
tblFleetMix	LDA	0.61	0.46
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tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.3030e-003	0.00
tblFleetMix	MCY	5.2430e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	8.2800e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	3.8790e-003	0.00
tblFleetMix	SBUS	1.0270e-003	0.00

tblFleetMix	UBUS	1.6850e-003	0.00
tblGrading	AcresOfGrading	0.00	45.50
tblLandUse	LotAcreage	0.00	45.45
tblOffRoadEquipment	HorsePower	158.00	400.00
tblOffRoadEquipment	HorsePower	247.00	474.00
tblOffRoadEquipment	HorsePower	247.00	359.00
tblOffRoadEquipment	HorsePower	247.00	215.00
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tblOffRoadEquipment	LoadFactor	0.44	0.44
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.50
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.50
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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.50
tblOffRoadEquipment	UsageHours	8.00	4.50
tblOffRoadEquipment	UsageHours	8.00	4.50
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	10.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.44	0.44
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	14.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripLength	10.80	14.00
tblTripsAndVMT	WorkerTripNumber	30.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblVehicleTrips	CC_TL	6.60	14.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.60	7.30
tblVehicleTrips	CW_TL	14.70	9.50
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	13.00

thl\/ehicleTrine	WD TR	 0.00	12.00
LDIVEITICIE I TIPS		 0.00	13.00
•			

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					tons	s/yr							MT	/yr		
2022	0.1887	1.7682	1.5085	3.37E-03	0.2022	0.0753	0.2775	0.0981	0.0693	0.1674	0	296.8062	296.8062	0.092	0	299.1058
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	0.1887	1.7682	1.5085	3.37E-03	0.2022	0.0753	0.2775	0.0981	0.0693	0.1674	0	296.8062	296.8062	0.092	0	299.1058

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2022	0.0428	0.2013	1.6365	3.37E-03	0.2022	5.37E-03	0.2075	0.0981	5.37E-03	0.1034	0	296.8058	296.8058	0.092	0	299.1055
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	0.0428	0.2013	1.6365	3.37E-03	0.2022	5.37E-03	0.2075	0.0981	5.37E-03	0.1034	0	296.8058	296.8058	0.092	0	299.1055

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	77.31	88.61	-8.48	0.00	0.00	92.87	25.20	0.00	92.25	38.20	0.00	0.00	0.00	0.00	0.00	0.00
Quarter	St	art Date	En	d Date	Maximu	Maximum Unmitigated ROG + NOX (tons/quarter)					num Mitigat	ed ROG +	NOX (tons/c	juarter)]	
4	4	1 2022	7.0	2000			1 5259			0 1800						

1	4-4-2022	7-3-2022	1.5258	0.1899
2	7-4-2022	10-3-2022	0.4192	0.0522

0.1899
0.1000
l

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category					tons	s/yr						MT/yr						
Area	0	0	1.00E-05	0		0	0		0	0	0	2.00E-05	2.00E-05	0	0	2.00E-05		
Energy	0	0	0	0		0	0		0	0	0	0	0	0	0	0		
Mobile	3.34E-03	0.0251	0.0542	2.30E-04	0.021	1.50E-04	0.0211	5.60E-03	1.40E-04	5.74E-03	0	21.0448	21.0448	7.40E-04	0	21.0634		
Offroad	0.1085	0.8349	1.9454	3.03E-03		0.04	0.04		0.0368	0.0368	0	265.8163	265.8163	0.086	0	267.9656		
Waste						0	0		0	0	0	0	0	0	0	0		
Water						0	0		0	0	0	0	0	0	0	0		
Total	0.1118	0.8599	1.9996	3.26E-03	0.021	0.0402	0.0612	5.60E-03	0.037	0.0426	0	286.8612	286.8612	0.0867	0	289.029		

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Area	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.3400e- 003	0.0251	0.0542	2.3000e- 004	0.0210	1.5000e- 004	0.0211	5.6000e- 003	1.4000e- 004	5.7400e- 003	0.0000	21.0448	21.0448	7.4000e- 004	0.0000	21.0634
Offroad	0.1085	0.8349	1.9454	3.0300e- 003		0.0400	0.0400		0.0368	0.0368	0.0000	265.8163	265.8163	0.0860	0.0000	267.9656
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1118	0.8599	1.9996	3.2600e- 003	0.0210	0.0402	0.0612	5.6000e- 003	0.0370	0.0426	0.0000	286.8612	286.8612	0.0867	0.0000	289.0290

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/4/2022	4/3/2022	5	0	
2	Site Preparation	Site Preparation	6/11/2022	6/10/2022	5	0	
3	Grading	Grading	4/4/2022	7/28/2022	6	100	
4	Building Construction	Building Construction	11/5/2022	11/4/2022	5	0	
5	Paving	Paving	9/6/2025	9/5/2025	5	0	
6	Architectural Coating	Architectural Coating	11/22/2025	11/21/2025	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 45.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	0	0.00	158	0.38
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73

Grading	Excavators	1	4.50	400	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Rubber Tired Dozers	1	4.50	474	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	0	0.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Scrapers	0	0.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	1	4.50	158	0.38
Grading	Off-Highway Tractors	3	4.50	124	0.44
Grading	Off-Highway Trucks	3	4.50	402	
Grading	Rubber Tired Dozers	1	4.50	359	0.40
Grading	Rubber Tired Dozers	1	4.50	215	0.40
Grading	Rubber Tired Loaders	1	4.50	203	0.36

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	12.00	4.00	0.00	14.00	14.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Paving	6	0.00	0.00	0.00	10.80	6.60	20.00 LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	6.60	20.00 LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2022

Phase not used

3.3 Site Preparation - 2022

Phase not used

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Fugitive Dust					0.1935	0.0000	0.1935	0.0957	0.0000	0.0957	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1853	1.7378	1.4833	3.2200e- 003		0.0752	0.0752		0.0692	0.0692	0.0000	282.9929	282.9929	0.0915	0.0000	285.2811
Total	0.1853	1.7378	1.4833	3.2200e- 003	0.1935	0.0752	0.2687	0.0957	0.0692	0.1649	0.0000	282.9929	282.9929	0.0915	0.0000	285.2811

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e- 004	0.0288	7.4300e- 003	9.0000e- 005	2.5100e- 003	8.0000e- 005	2.5900e- 003	7.2000e- 004	7.0000e- 005	8.0000e- 004	0.0000	8.9099	8.9099	3.4000e- 004	0.0000	8.9185

Worker	2.4200e-	1.6900e-	0.0178	5.0000e-	6.1400e-	4.0000e-	6.1800e-	1.6300e-	4.0000e-	1.6700e-	0.0000	4.9034	4.9034	1.2000e-	0.0000	4.9062
	003	003		005	003	005	003	003	005	003				004		
Tatal	2 2000-	0.0005	0.0050	4 40.00		1			4 4 4 4 4 4 4			10.0100	10.0100	1		10.00.15
Total	3.3900e-	0.0305	0.0252	1.4000e-	8.6500e-	1.2000e-	8.7700e-	2.3500e-	1.1000e-	2.4700e-	0.0000	13.8132	13.8132	4.6000e-	0.0000	13.8247
Total	003	0.0305	0.0252	1.4000e- 004	8.6500e- 003	1.2000e- 004	8.7700e- 003	2.3500e- 003	1.1000e- 004	2.4700e- 003	0.0000	13.8132	13.8132	4.6000e- 004	0.0000	13.8247

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Fugitive Dust					0.1935	0.0000	0.1935	0.0957	0.0000	0.0957	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0394	0.1709	1.6113	3.2200e- 003		5.2600e- 003	5.2600e- 003		5.2600e- 003	5.2600e- 003	0.0000	282.9926	282.9926	0.0915	0.0000	285.2807
Total	0.0394	0.1709	1.6113	3.2200e- 003	0.1935	5.2600e- 003	0.1988	0.0957	5.2600e- 003	0.1010	0.0000	282.9926	282.9926	0.0915	0.0000	285.2807

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e- 004	0.0288	7.4300e- 003	9.0000e- 005	2.5100e- 003	8.0000e- 005	2.5900e- 003	7.2000e- 004	7.0000e- 005	8.0000e- 004	0.0000	8.9099	8.9099	3.4000e- 004	0.0000	8.9185
Worker	2.4200e- 003	1.6900e- 003	0.0178	5.0000e- 005	6.1400e- 003	4.0000e- 005	6.1800e- 003	1.6300e- 003	4.0000e- 005	1.6700e- 003	0.0000	4.9034	4.9034	1.2000e- 004	0.0000	4.9062
Total	3.3900e- 003	0.0305	0.0252	1.4000e- 004	8.6500e- 003	1.2000e- 004	8.7700e- 003	2.3500e- 003	1.1000e- 004	2.4700e- 003	0.0000	13.8132	13.8132	4.6000e- 004	0.0000	13.8247

3.5 Building Construction - 2022

Phase not used

3.6 Paving - 2025

Phase not used

3.7 Architectural Coating - 2025

Phase not used

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Mitigated	3.3400e- 003	0.0251	0.0542	2.3000e- 004	0.0210	1.5000e- 004	0.0211	5.6000e- 003	1.4000e- 004	5.7400e- 003	0.0000	21.0448	21.0448	7.4000e- 004	0.0000	21.0634
Unmitigated	3.3400e- 003	0.0251	0.0542	2.3000e- 004	0.0210	1.5000e- 004	0.0211	5.6000e- 003	1.4000e- 004	5.7400e- 003	0.0000	21.0448	21.0448	7.4000e- 004	0.0000	21.0634

4.2 Trip Summary Information

	Aver	age Daily Trip	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	13.00	13.00	0.00	56,784	56,784
Total	13.00	13.00	0.00	56,784	56,784

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	9.50	14.00	7.30	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.461538	0.461538	0.000000	0.000000	0.000000	0.000000	0.000000	0.076923	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							МТ	ī/yr		
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Г/yr	
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	Г/yr	
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							MT	/yr		
Mitigated	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005
Unmitigated	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					tons	s/yr							MT	/yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory		tons/yr									MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	2.0000e- 005

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	ſ/yr	
User Defined Recreational	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	ſ/yr	
User Defined Recreational	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e						
	MT/yr									
Mitigated	0.0000	0.0000	0.0000	0.0000						
Unmitigated	0.0000	0.0000	0.0000	0.0000						

8.2 Waste by Land Use

<u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	ſ/yr	
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e				
Land Use	tons	MT/yr							
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000				
Total		0.0000	0.0000	0.0000	0.0000				

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Tractors	4	10.00	260	124	0.44	Diesel

UnMitigated/Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type					tons	s/yr							MT	/yr		
Off-Highway Tractors	0.1085	0.8349	1.9454	3.0300e- 003		0.0400	0.0400		0.0368	0.0368	0.0000	265.8163	265.8163	0.0860	0.0000	267.9656
Total	0.1085	0.8349	1.9454	3.0300e- 003		0.0400	0.0400		0.0368	0.0368	0.0000	265.8163	265.8163	0.0860	0.0000	267.9656

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Typ
oilers						
Equipment Type	Number	Heat Input/Day	Lloot Innut/Veer	Boiler Rating	Fuel Type	
Equipment Type	Number	neat input/Day	Heat Input/Year	Boller Rating	ruei i ype	
ser Defined Equipment	Number	neat input Day	neat input rear		ruei rype	



memorandum

date	March 8, 2020 October 25, 2021
to	Jennifer Aranda, Senior Managing Associate
from	Jyothi Iyer, Air Quality Specialist
subject	Stagecoach North Vineyard Conversion Erosion Control Plan Carbon Stock and Sequestration Analysis

Introduction

This analysis has been prepared as part of the greenhouse gas (GHG) analysis for the Environmental Impact Report (EIR) to evaluate impacts of implementing the Stagecoach North Vineyard Conversion Erosion Control Plan Application (ECPA) Project (#P18-00446-ECPA).

This analysis includes an assessment of the carbon stock and carbon sequestration of the existing land use types that would be lost as a result of land conversion from the Stagecoach North Soda Canyon Vineyard Conversion Erosion Control Plan Application Project (proposed project). The analysis also includes an assessment of the carbon stock and sequestration that would be gained as a result of converting existing land uses into vineyards.

Analysis

The analysis includes the following sources and sinks of carbon and GHG emissions:

- One-time emissions associated with carbon stocks and storage lost or released when site vegetation is removed. This includes above-ground carbon, such as woody debris and downed wood, and below-ground carbon, such as in the soil. Soil carbon is released when soil is ripped in preparation for vineyard development and planting. For the purpose of this analysis it is assumed that <u>half of all</u> the removed vegetation would be burned and the other half would be chipped/mulched.
- 2. Annual emissions associated with carbon sequestration lost when site vegetation is removed.
- 3. One-time emission sinks associated with carbon stocks and storage gained when the new vineyards are planted, including above-ground and below-ground carbon.
- 4. Annual emission sinks associated with carbon sequestration gained through the growth and maintenance of the new vineyards.

A number of different sources were consulted to estimate the carbon stocks and carbon sequestration of all land types associated with the project. These sources include the following:

- Napa County Draft Climate Action Plan Appendix A (2016).¹ The Napa County Draft Climate Action Plan (CAP) was used to estimate carbon storage for grasslands and scrublands, along with carbon sequestration for all land use types.
- California Oak Foundation: An Inventory of Carbon and California Oaks (2008).² This report was used to estimate above- and below-ground carbon storage for oaks.
- Williams et. al. 2011, Assessment of carbon in woody plants and soil across a vineyard-woodland landscape.³ This paper was used to determine above- and below-ground carbon storage for vineyards.

The carbon storage and sequestration factors used in the analysis are presented below in **Table 1**. The table includes factors for all land use types associated with the project and presents the source of each factor.

Ascent Environmental, 2016. Napa County Climate Action Plan: Appendix A Technical Memo #1 - Greenhouse Gas Emissions Inventory and Forecasts. Table 16. Available at: https://www.countyofnapa.org/DocumentCenter/View/297/Appendix-A-Revised-Final-Tech-Memo-1-PDF. Accessed January 2019.

² California Oak Foundation, 2008. *An Inventory of Carbon and California Oaks*. Tables 4 and 5. Available at: http://californiaoaks.org/wp-content/uploads/2016/04/CarbonResourcesFinal.pdf. Accessed January 2019.

³ Williams, J. N., D. Hollander, A T. O'Geen, L. A. Thrupp, R. Hanifin, K. Steenwerth, G. McGourty, L. E. Jackson (2011). Assessment of carbon in woody plants and soil across a vineyard-woodland landscape. *Carbon Balance and Management*, 2011; 6: 11. doi: 10.1186/1750-0680-6-11. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3287142/.

	<u>Carbon S</u>	torage / S	stock per Acre (<u>MT C/acre)</u>	Carbon
Vegetation / Land Use Type	<u>Wood /</u> <u>Trees</u>	<u>Soil</u>	<u>Litter / duff /</u> understory	<u>Total</u>	<u>Sequestration</u> (MT C/year)
Existing Land Use Types					
Black Oak Alliance (Quercus kelloggii Forest Alliance) b	22.3	<u>11.3</u>	<u>25.9</u>	<u>59.5</u>	<u>2.017</u>
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (Umbellularia californica Forest Alliance) ^b	<u>22.3</u>	<u>11.3</u>	<u>25.9</u>	<u>59.5</u>	<u>2.017</u>
California Annual Grasslands Alliance a	=	=	=	<u>2.6</u>	<u>0.0</u>
Chamise Alliance (Adenostoma fasciculatum Shrubland Alliance) a	=	=	=	<u>12.8</u>	<u>0.0</u>
<u>Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West</u> <u>County NFD Alliance (Arcostaphylos glandulosa and A. manzanita</u> <u>Provisional Shrubland Alliance)</u> ^b	Ξ	=	=	<u>34.9</u>	<u>2.017</u>
Scrub Interior Live Oak–Scrub Oak–(California Bay–Flowering Ash–Birch Leaf Mountain Mahogany–Toyon–California Buckeye) Mesic East County NFD Super Alliance (Sclerophyllous Quercus spp. Alliance) ^b	=	=	=	<u>34.9</u>	<u>2.017</u>
New Land Use Types			•		
<u>Vineyard °</u>	<u>1.2</u>	<u>34.0</u>	<u>0.0</u>	<u>35.2</u>	<u>0.016</u>
NOTES:					

TABLE 1 CARBON STOCKS / STORAGE AND ANNUAL SEQUESTRATION FACTORS

а Values are from the 2012 Napa CAP, Appendix A, Table 16. For grasslands and scrublands, only a total carbon storage value was available.

b Carbon storage values are from California Oaks Foundation (2008), Tables 4 and 5. Carbon sequestration values are from the 2012 Napa CAP. Appendix A, Table 16.

^c Carbon storage values are from Williams (2011), Table 1. Carbon sequestration values are from the 2012 Napa CAP, Appendix A, Table 16.

ABBREVIATIONS: MT = metric tons C = carbon NFD = no formal description - = value not available

SOURCES:

Ascent Environmental, 2016. Napa County Climate Action Plan: Appendix A Technical Memo #1 - Greenhouse Gas Emissions Inventory and 1. Forecasts. Table 16. Available at: https://www.countyofnapa.org/DocumentCenter/View/297/Appendix-A-Revised-Final-Tech-Memo-1-PDF. Accessed January 2019.

2.

California Oak Foundation, 2008. An Inventory of Carbon and California Oaks. Tables 4 and 5. Available at: http://californiaoaks.org/wp-content/ uploads/2016/04/CarbonResourcesFinal.pdf. Accessed January 2019. Williams, J. N., D. Hollander, A T. O'Geen, L. A. Thrupp, R. Hanifin, K. Steenwerth, G. McGourty, L. E. Jackson (2011). Assessment of carbon in woody plants and soil across a vineyard-woodland landscape. *Carbon Balance and Management*, 2011; 6: 11. doi: 10.1186/1750-0680-6-11. Patriaved from bitro://www.psbi.plm.pib.ingm. 3. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3287142/.

	Carbon S	Carbon			
Vegetation / Land Use Type		Soil	Litter / duff / understory	Total	Sequestration (MT C/year)
Existing Land Use Types					
Agriculture *	-	-	-	2.2	0.081
California Annual Grassland Alliance ^{, a}	-	-	-	2.6	0.0
Chamise Alliance *	-	-	-	2.6	0.0
Coast Live Oak Alliance ^b	22.3	11.3	25.9	59.5	2.017
Mixed Manzanita – (Interior Live Oak – California Bay – Chamise) West County NFD Alliance ^a	-	-	-	34.9	<u>2.017</u>
Schlerophyllous Shrubland Formation *	-	-	-	12.8	0.0
Scrub Interior Live Oak-Scrub Oak (California Bay-Flowering Ash- Birch Leaf Mountain Mahogany Toyon California Buckeye) Mesic East County NFD Super Alliance *	-	_	-	34.9	2.017
New Land Use Types					
Vineyard ⁴	1.2	34.0	0.0	35.2	0.016
Roads / other ^e	0.0	0.0	0.0	0.0	0.0

Table 1 Carbon Stocks / Storage and Annual Sequestration Factors

a Values are from the 2012 Napa CAP, Appendix A, Table 16. For agriculture, grasslands and scrublands, only a total carbon storage value was available.

b—Carbon storage values are from California Oaks Foundation (2008), Tables 4 and 5. Carbon sequestration values are from the 2012 Napa CAP, Appendix A, Table 16.

^e—It was assumed that these land types have no carbon storage or annual carbon sequestration.

^d Carbon storage values are from Williams (2011), Table 1. Carbon sequestration values are from the 2012 Napa CAP, Appendix A, Table 16. ABBREVIATIONS:

ABBREVIATIONS:

MT = metric tons C = carbon NFD = no formal description -= value not available

SOURCES:

 Ascent Environmental, 2016. Napa County Climate Action Plan: Appendix A Technical Memo #1 - Greenhouse Gas Emissions Inventory and Forecasts. Table 16. Available at: https://www.countyofnapa.org/DocumentCenter/View/297/Appendix-A-Revised-Final-Tech-Memo-1-PDF. Accessed January 2019.

 California Oak Foundation, 2008. An Inventory of Carbon and California Oaks. Tables 4 and 5. Available at: http://californiaoaks.org/wpcontent/uploads/2016/04/CarbonResourcesFinal.pdf. Accessed January 2019.

 Williams, J. N., D. Hollander, A T. O'Geen, L. A. Thrupp, R. Hanifin, K. Steenwerth, G. McGourty, L. E. Jackson (2011). Assessment of carbon in woody plants and soil across a vineyard-woodland landscape. Carbon Balance and Management, 2011; 6: 11. doi: 10.1186/1750-0680-6-11. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3287142/.

These carbon stock and sequestration factors are utilized in this assessment because they provide the most conservative estimate of potential emissions from vegetation removed from the project site. As such, the County considers the anticipated potential emissions resulting from the proposed project that are disclosed in this analysis to reasonably reflect proposed conditions and therefore are considered appropriate and adequate for project impact assessment. Emissions associated with loss of sequestration due to land use change (i.e., the conversions of grassland, <u>shrubland</u>, and oak woodlands to vineyard) have been calculated based the sources identified above, which indicates that grasslands and <u>shrublands serublands</u> sequester a negligible quantity of carbon dioxide (CO₂) acre per year (essentially zero), and oak woodland sequesters approximately 2.0 metric tons carbon (MT C) per acre per year.

Grapevines are photosynthetic plants and therefore have value in terms of carbon capture. Additionally, the use of cover crops, which are also photosynthetic plants, tends to result in less soil CO_2 loss from vineyard soils. Carbon sequestration loss would be somewhat offset by the proposed vineyard, which would likely act as a sink for atmospheric CO_2 , depending on the longevity of grapevine roots and the quantity of carbon stored in deep roots. In addition to vines, the sequestration of atmospheric carbon is also achieved by the soil between vine rows through cover-cropping which has not been quantified in this analysis.

It is worth noting that the quantitative estimate of carbon stocks and sequestration presented in this analysis requires many assumptions about what would happen during the next 30-100 years onsite under "project" and "no project" conditions (e.g., the life expectancy of the proposed vineyard and existing site vegetation, incidences of disease and fire, etc.).

Table 2 presents the estimated carbon stocks/storage at the project site for existing land uses. These represent one-time emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 116 acres of agriculture, grassland, oak woodlands, and <u>shrublands</u> scrublands to vineyard and access roads. As mentioned above, for the purpose of this analysis it is assumed that <u>all half of the</u> removed vegetation would be burned and the other half would be chipped/mulched. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the carbon stock factors collected from the sources identified above are utilized to determine potential project site carbon stocks and associated emissions. As shown in Table 2, total existing project site carbon stocks are estimated to be approximately <u>3,487</u> 2,258 MT C or approximately <u>12,786</u> 8,280 metric tons of carbon dioxide equivalent (MTCO₂e).⁴

⁴ The Carbon Dioxide Equivalent (CO₂e) is the commonly reported unit of GHG emissions to represent total emissions from all the different greenhouse gases, based on CO₂ as the reference gas for climate change. Carbon is converted to CO₂e by multiplying the carbon amount by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom.

Vegetation / Land Use Type	<u>Project</u> <u>Acreage</u>	<u>Carbon Storage /</u> <u>Stock per Acre</u> (MT C/acre) ^b	<u>Total Carbon</u> <u>Storage (MT C) °</u>	<u>Total Carbon</u> <u>Storage</u> (MTCO₂e) ^d
<u>Black Oak Alliance (Quercus kelloggii Forest</u> <u>Alliance)</u>	<u>0.8</u>	<u>59.5</u>	<u>44.6</u>	<u>163.6</u>
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (Umbellularia californica Forest Alliance)	<u>31.6</u>	<u>59.5</u>	<u>1,881.6</u>	<u>6,899.3</u>
California Annual Grasslands Alliance	<u>6.6</u>	<u>2.6</u>	<u>17.1</u>	<u>62.5</u>
Chamise Alliance (Adenostoma fasciculatum Shrubland Alliance)	<u>48.9</u>	<u>12.8</u>	<u>625.3</u>	<u>2,292.7</u>
Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County NFD Alliance (Arcostaphylos glandulosa and A. manzanita Provisional Shrubland Alliance)	<u>3.8</u>	<u>34.9</u>	<u>131.6</u>	<u>482.4</u>
Scrub Interior Live Oak–Scrub Oak–(California Bay–Flowering Ash–Birch Leaf Mountain Mahogany–Toyon–California Buckeye) Mesic East County NFD Super Alliance (Sclerophyllous Quercus spp. Alliance)	<u>22.6</u>	<u>34.9</u>	<u>787.0</u>	<u>2.885.6</u>
Total	<u>114.1</u>	=	<u>3,487.2</u>	<u>12,786.2</u>

TABLE 2 ESTIMATED PROJECT SITE CARBON STOCKS / STORAGE - EXISTING *

a Values may not sum exactly due to rounding and Urban/Built-Up and Rock Outcrop land cover types are not included because they are not vegetation types.

b Values from Table 1.

 <u>C</u> Project acreage multiplied by carbon storage / stock per acre.
 <u>MT C is converted to MTCO₂e by multiplying MT C by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic
</u> mass of a carbon atom.

ABBREVIATIONS: MT = metric tons

 $\overline{C = \text{carbon}}$ MTCO₂e = metric tons carbon dioxide equivalent

Vegetation / Land Use Type	Project Acreage	Carbon Storage / Stock per Acre (MT C/acre) [∌]	Total Carbon Storage (MT C) [€]	Total Carbon Storage (MTCO₂e)- [∉]
Agriculture	0.3	2.2	0.6	<u>2.1</u>
California Annual Grassland Alliance	0.3	2.6	0.7	2.5
Chamise Alliance	4 0.3	2.6	104.9	384.5
Coast Live Oak Alliance	0.0	59.5	0.0	0.0
Mixed Manzanita — (Interior Live Oak - California Bay - Chamise) West County NFD Alliance	44 .7	34.9	1,559.8	5719.3
Schlerophyllous Shrubland Formation	21.6	12.8	276.6	1,014.3
Scrub Interior Live Oak Scrub Oak (California Bay- Flowering Ash Birch Leaf Mountain Mahogany- Toyon California Buckeye) Mesic East County NFD Super Alliance	9.0	34.9	315.6	1,157.1
Total	116.2	_	2,258.1	8,280

TABLE 2 ESTIMATED PROJECT SITE CARBON STOCKS / STORAGE - EXISTING *

^a_Values may not sum exactly due to rounding

^b-Values from Table 1

^e Project acreage multiplied by carbon storage / stock per acre

d-MT C is converted to MTCO2e by multiplying MT C by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom. ABBREVIATIONS:

MT = metric tons

C = carbon

MTCO₂e = metric tons carbon dioxide equivalent

Table 3 presents the estimated annual carbon sequestration at the project site for existing land uses. This represents lost carbon sequestration resulting from vegetation removal and soil preparation associated with the project's land use conversion. As for carbon storage factors above, because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the carbon sequestration factors collected from the sources identified above are utilized to determine the potential loss in annual carbon sequestration at the project site. As shown in Table 3, it is anticipated that the annual emissions associated with existing carbon sequestration at the project site is approximately 118 152 MT C per year or 434.1 557.3 MTCO₂e per year.

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Vegetation / Land Use Type	<u>Project</u> <u>Acreage</u>	Annual Carbon Sequestration per Acre (MT C/acre) ^b	Annual Carbon Sequestration (MT C) ^c	Annual Carbon Sequestration (MTCO ₂ e) ^d
Black Oak Alliance (Quercus kelloggii Forest Alliance)	<u>0.8</u>	<u>2.017</u>	<u>1.5</u>	<u>5.5</u>
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (Umbellularia californica Forest Alliance)	<u>31.6</u>	<u>2.017</u>	<u>63.8</u>	<u>233.9</u>
California Annual Grasslands Alliance	<u>6.6</u>	<u>0.0</u>	0.0	0.0
Chamise Alliance (Adenostoma fasciculatum Shrubland Alliance)	<u>48.9</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Mixed Manzanita–(Interior Live Oak–California Bay– Chamise) West County NFD Alliance (Arcostaphylos glandulosa and A. manzanita Provisional Shrubland Alliance)	<u>3.8</u>	<u>2.017</u>	<u>7.6</u>	<u>27.9</u>
Scrub Interior Live Oak–Scrub Oak–(California Bay– Flowering Ash–Birch Leaf Mountain Mahogany– Toyon–California Buckeye) Mesic East County NFD Super Alliance (Sclerophyllous Quercus spp. Alliance)	<u>22.6</u>	<u>2.017</u>	<u>45.5</u>	<u>166.8</u>
Total	<u>114.1</u>	=	<u>118.4</u>	<u>434.1</u>

TABLE 3 ESTIMATED PROJECT SITE CARBON SEQUESTRATION - EXISTING^A

a Values may not sum exactly due to rounding and Urban/Built-Up and Rock Outcrop land cover types are not included because they are not vegetation types.

b Values from Table 1.

C Project acreage multiplied by carbon storage / stock per acre

<u>d</u> MT C is converted to MTCO2e by multiplying MT C by 44/12. (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom.

ABBREVIATIONS:

 $\frac{MT = metric tons}{C = carbon}$ $\frac{MTCO_2e = metric tons carbon dioxide equivalent}{MTCO_2e}$

Vegetation / Land Use Type	Project Acreage	Annual Carbon Sequestration per Acre (MT C/acre) ^b	Annual Carbon Sequestration (MT C) *	Annual Carbon Sequestration (MTCO ₂ e) ^d
Agriculture	0.3	0.081	0.0	0.1
California Annual Grassland Alliance	0.3	0.0	0.0	0.0
Chamise Alliance	40.3	0.0	0.0	0.0
Coast Live Oak Alliance	0.0	2.017	0.0	0.0
Mixed Manzanita — (Interior Live Oak - California Bay - Chamise) West County NFD Alliance	44.7	2.017	90.1	330.5
Schlerophyllous Shrubland Formation	21.6	0.0	4 3.6	159.8
Scrub Interior Live Oak-Scrub Oak (California Bay- Flowering Ash Birch Leaf Mountain Mahogany- Toyon California Buckeye) Mesic East County NFD Super Alliance	9.0	2.017	18.2	66.9
Total	116.2	-	152.0	557.3

TABLE 3 Estimated Project Site Carbon Sequestration - Existing*

^a—Values may not sum exactly due to rounding

^b-Values from Table 1

^e—Project acreage multiplied by carbon storage / stock per acre

d-MT C is converted to MTCO2e by multiplying MT C by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom. ABBREVIATIONS:

MT = metric tons C = carbon MTCO₂e = metric tons carbon dioxide equivalent

Table 4 presents the future estimated carbon stocks/storage at the project site for new land uses, including the vineyards. This represents new carbon storage associated with the new vineyards' biomass. As shown in Table 4, total project-related carbon stocks are estimated to be approximately 3,218 MT C or approximately 11,800 MTCO₂e.

Vegetation / Land Use Type	Project Acreage	Carbon Storage / Stock per Acre (MT C/acre) ^b	Total Carbon Storage (MT C) °	Total Carbon Storage (MTCO₂e) ^d
Vineyard	91.3	35.2	3,218.2	11,800
Roads / other	24.9	0.0	0.0	0.0
Total	116.2	0.0	3,218.2	11,800

TABLE 4
ESTIMATED PROJECT SITE CARBON STOCKS / STORAGE - PROJECT A

NOTES:

^a Values may not sum exactly due to rounding

^b Values from Table 1

С Project acreage of individual vegetation/land use types multiplied by carbon storage / stock per acre

d MT C is converted to MTCO2e by multiplying MT C by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom.

ABBREVIATIONS:

MT = metric tons C = carbon

MTCO₂e = metric tons carbon dioxide equivalent

Table 5 presents the estimated annual carbon sequestration at the project site for new land uses. This represents gained carbon sequestration from photosynthesis by the new vineyards. As shown in Table 5, it is anticipated that the annual emissions associated with new carbon sequestration at the project site is approximately 1.5 MT C per year or 5.4 MTCO₂e per year.

TABLE 5 ESTIMATED PROJECT SITE CARBON SEQUESTRATION - PROJECT A

Vegetation / Land Use Type	Project Acreage	Annual Carbon Sequestration per Acre (MT C/acre) ^b	Annual Carbon Sequestration (MT C) °	Annual Carbon Sequestration (MTCO₂e) ^d
Vineyard	91.3	0.016	1.5	5.4
Roads / other	24.9	0.0	0.0	0.0
Total	116.2	-	1.5	5.4

NOTES:

^a Values may not sum exactly due to rounding

^b Values from Table 1

^c Project acreage multiplied by carbon storage / stock per acre

d MT C is converted to MTCO2e by multiplying MT C by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom.

ABBREVIATIONS:

MT = metric tons

C = carbon

MTCO₂e = metric tons carbon dioxide equivalent

Based on the above estimates, **Table 6** presents overall project-related GHG emissions. This table shows the total one-time carbon storage loss associated with converting existing land uses into vineyards along with the 30-year project lifetime carbon sequestration loss of this conversion, which is 25,810 15,148 MTCO₂e. The table also shows the total one-time carbon storage gain associated with the new vineyards along with the 30-year project lifetime carbon sequestration gain of the new vineyards, which is 11,961 14,607 MTCO₂e. Accordingly, the proposed project could result in a one-time emissions sink of up to 986 6,713 MTCO₂e (12,7867,697 minus 11,800 14,411) and annual on-going emissions associated with loss of sequestration estimated to be 429 242 MT CO₂e per year (434 248 minus 5 7), for a total 30-year lifetime project emission of 13,849 541 MTCO₂e or 148 MT-C. In other words, it is anticipated that the annual emissions associated with changes in carbon stock/storage and sequestration as a result of project-related land use changes would be approximately 5 MT-C per year or 462 18 MTCO₂e per year.

Vegetation / Land Use Type	Total MTCO₂e			
Carbon Loss - existing land use removal				
Carbon Storage ^a	<u>12,786</u> 4,140			
Carbon Sequestration (annual)	<u>434</u> 557			
30-year lifetime sequestration emissions	<u>25,810</u> 20,859			
Carbon Gains - new land use types ^a				
Carbon Storage	-11,800			
Carbon Sequestration (annual)	-5			
30-year lifetime sequestration emissions	-11,961			
Total Project Lifetime Emissions	<u>13,849</u> 8,899			
Total Project Annual Emissions	<u>462</u> 297			
NOTES: ^a Emissions are reported as negative because they represer ABBREVIATIONS: GHG = greenhouse gas emissions MTCO ₂ e = metric tons carbon dioxide equivalent	t a GHG emissions sink			

 TABLE 6

 ESTIMATED OVERALL PROJECT-RELATED GHG EMISSIONS

Table 7 presents overall project-related GHG emissions for the mitigated proposed project described in the Draft EIR (development of approximately 69 acres of vineyard within approximately 91 acres). The total one-time carbon storage loss associated with converting existing land uses into vineyards along with the 30-year project lifetime carbon sequestration loss of this conversion would be 17,183 MTCO₂e. The table also shows the total one-time carbon storage gain associated with the 69 acres of new vineyards along with the 30-year project lifetime carbon sequestration gain of the new vineyards, which is 9,039 MTCO₂e. Accordingly, the mitigated proposed project could result in a one-time emissions sink of up to 303 MTCO₂e (8,614 minus 8,918) and annual on-going emissions associated with loss of sequestration estimated to be 282 MT CO_{2e} per year (286 minus 4), for a total 30-year lifetime project emission of 8,144 MTCO₂e. In other words, it is anticipated that the annual emissions associated with changes in carbon stock/storage and sequestration associated with the mitigated project would be approximately 271 MTCO₂e per year.

Vegetation / Land Use Type	<u>Total MTCO₂e</u>
Carbon Loss - existing land use removal	
Carbon Storage ^a	<u>8,614</u>
Carbon Sequestration (annual)	<u>286</u>
30-year lifetime sequestration emissions	<u>17,183</u>
Carbon Gains - new land use types ^a	
Carbon Storage	<u>-8,918</u>
Carbon Sequestration (annual)	<u>-4</u>
30-year lifetime sequestration emissions	<u>-9,039</u>
Total Project Lifetime Emissions	<u>8,144</u>
Total Project Annual Emissions	<u>271</u>
NOTES:	
^a Emissions are reported as negative because they represer	nt a GHG emissions sink
ABBREVIATIONS:	
<u>GHG = greenhouse gas emissions</u> MTCO ₂ e = metric tons carbon dioxide equivalent	

 Table 7

 Estimated Overall Project-related GHG Emissions

References

- Ascent Environmental, 2016. Napa County Climate Action Plan: Appendix A Technical Memo #1 Greenhouse Gas Emissions Inventory and Forecasts. Table 16. Available: https://www.countyofnapa.org/ DocumentCenter/View/297/Appendix-A-Revised-Final-Tech-Memo-1-PDF. Accessed January 2019.
- California Oak Foundation. 2008. *An Inventory of Carbon and California Oaks*. Tables 4 and 5. Available: http://californiaoaks.org/wp-content/uploads/2016/04/CarbonResourcesFinal.pdf. Accessed January 2019.
- Williams, J. N., D. Hollander, A T. O'Geen, L. A. Thrupp, R. Hanifin, K. Steenwerth, G. McGourty, L. E. Jackson (2011). Assessment of carbon in woody plants and soil across a vineyard-woodland landscape. *Carbon Balance and Management*, 2011; 6: 11. doi: 10.1186/1750-0680-6-11. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3287142/.

Stagecoach Soda Canyon - Carbon Sequestration Analysis EIR Tables

Updated: 10/22/2021

1 Project Vegetation by Acreage

Biological Communities	Total Acreage on Project Site	Original Project Acreage	Mitigated Project Acreage
Existing Vegetation			
Black Oak Alliance (Quercus kelloggii Forest Alliance)	0.79	0.75	0
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (Umbellularia californica Forest Alliance)	50.24	31.63	17.25
California Annual Grasslands Alliance	8.82	6.56	6.1
Chamise Alliance (Adenostoma fasciculatum Shrubland Alliance)	71.58	48.85	43.87
Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County NFD Alliance (Arcostaphylos glandulosa and A. manzanita Provisional Shrubland Alliance)	5.74	3.77	2.52
Scrub Interior Live Oak–Scrub Oak–(California Bay–Flowering Ash–Birch Leaf Mountain Mahogany–Toyon–California Buckeye) Mesic East County NFD Super Alliance (Sclerophyllous Quercus spp. Alliance)	29.86	22.55	18.85
Urban or Built-up (Roads and Graded Areas)	1.52	1.02	0.83
Rock Outcrop	1.6	1.09	1.06
Total	170.15	116.22	90.47
New Vegetation			
Vineyard		91.3	69.0

2 Carbon Stock & Carbon Sequestration Factors

	С				
Vegetation	Wood/Trees	Soil	Litter / duff / understory	Total	Carbon Sequestration (MT C/acre/year)
Existing Vegetation					
Black Oak Alliance (Quercus kelloggii Forest Alliance)	22.3	11.3	25.9	59.5	2.017
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (Umbellularia californica Forest Alliance)	22.3	11.3	25.9	59.5	2.017
California Annual Grasslands Alliance	0.0	0.0	0.0	2.6	0
Chamise Alliance (Adenostoma fasciculatum Shrubland Alliance)	0.0	0.0	0.0	12.8	0
Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County NFD Alliance (Arcostaphylos glandulosa and A. manzanita Provisional Shrubland Alliance)	0.0	0.0	0.0	34.9	2.017
Scrub Interior Live Oak–Scrub Oak–(California Bay–Flowering Ash–Birch Leaf Mountain Mahogany–Toyon–California Buckeye) Mesic East County NFD Super Alliance (Sclerophyllous Quercus spp. Alliance)	0.0	0.0	0.0	34.9	2.017
Wildland					
New Vegetation					
Vineyard	1.2	34.0	0.0	35.2	0.016

3 Estimated Project Site Carbon Stocks/Storage

Vegetation	Original Project Acreage	Carbon Storage / Stock per Acre (MT C/acre)	Total Carbon Storage (MT C)	Total Carbon Storage (MTCO ₂ e)	Mitigated Project Acreage	Carbon Storage / Stock per Acre (MT C/acre)	Total Carbon Storage (MT C)	Total Carbon Storage (MTCO₂e)
Black Oak Alliance (Quercus kelloggii Forest Alliance)	0.8	59.5	44.6	163.6	0.0	59.5	0.0	0.0
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (Umbellularia californica Forest Alliance)	31.6	59.5	1,881.6	6,899.3	17.3	59.5	1,026.2	3,762.7
California Annual Grasslands Alliance	6.6	2.6	17.1	62.5	6.1	2.6	15.9	58.2
Chamise Alliance (Adenostoma fasciculatum Shrubland Alliance)	48.9	12.8	625.3	2,292.7	43.9	12.8	561.5	2,059.0
Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County NFD Alliance (Arcostaphylos glandulosa and A. manzanita Provisional Shrubland Alliance)	3.8	34.9	131.6	482.4	2.5	34.9	87.9	322.5
Scrub Interior Live Oak–Scrub Oak–(California Bay–Flowering Ash–Birch Leaf Mountain Mahogany–Toyon–California Buckeye) Mesic East County NFD Super Alliance (Sclerophyllous Quercus spp. Alliance)	22.6	34.9	787.0	2,885.6	18.9	34.9	657.9	2,412.2
Total	114.1	1	3,487.2	12,786.2	88.6	1	2,349.4	8,614.4

4 Estimated Project Site Carbon Sequestration

Vegetation	Original Project Acreage	Annual Carbon Sequestration per Acre (MT C/acre)	Annual Carbon Sequestration (MT C)	Annual Carbon Sequestration (MTCO ₂ e)	Mitigated Project Acreage	Annual Carbon Sequestration per Acre (MT C/acre)	Annual Carbon Sequestration (MT C)	Annual Carbon Sequestration (MTCO ₂ e)
Black Oak Alliance (Quercus kelloggii Forest Alliance)	0.8	2.017	1.5	5.5	0.0	2.0	0.0	0.0
California Bay–Madrone–Coast Live Oak–(Black Oak, Big-Leaf Maple) NFD Super Alliance (Umbellularia californica Forest Alliance)	31.6	2.017	63.8	233.9	17.3	2.0	34.8	127.6
California Annual Grasslands Alliance	6.6	0.0	0.0	0.0	6.1	0.0	0.0	0.0
Chamise Alliance (Adenostoma fasciculatum Shrubland Alliance)	48.9	0.0	0.0	0.0	43.9	0.0	0.0	0.0
Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County NFD Alliance (Arcostaphylos glandulosa and A. manzanita Provisional Shrubland Alliance)	3.8	2.017	7.6	27.9	2.5	2.0	5.1	18.6
Scrub Interior Live Oak–Scrub Oak–(California Bay–Flowering Ash–Birch Leaf Mountain Mahogany–Toyon–California Buckeye) Mesic East County NFD Super Alliance (Sclerophyllous Quercus spp. Alliance)	22.6	2.017	45.5	166.8	18.9	2.0	38.0	139.4
Total	114.1		118.4	434.1	88.6		77.9	285.6

5 Estimated Project Carbon Stocks/Storage - Gained

Vegetation	Original Project Acreage	Carbon Storage / Stock per Acre (MT C/acre)	Total Carbon Storage (MT C)	Total Carbon Storage (MTCO ₂ e)	Mitigated Project Acreage	Carbon Storage / Stock per Acre (MT C/acre)	Total Carbon Storage (MT C)	Total Carbon Storage (MTCO ₂ e)
Vineyard	91.3	35.2	3,218.2	11,799.9	69.0	35.2	2,432.1	8,917.8
Total	91.3		3,218.2	11,799.9	69.0		2,432.1	8,917.8

6 Estimated Project Site Carbon Sequestration - Gained

Vegetation	Original Project Acreage	Annual Carbon Sequestration per Acre (MT C/acre)	Annual Carbon Sequestration (MT C)	Annual Carbon Sequestration (MTCO ₂ e)	Mitigated Project Acreage	Annual Carbon Sequestration per Acre (MT C/acre)	Annual Carbon Sequestration (MT C)	Annual Carbon Sequestration (MTCO ₂ e)
Vineyard	91.3	0.016	1.5	5.4	69.0	0.016	1.1	4.0
Total	91.3		1.5	5.4	69.0		1.1	4.0

7 Estimated Overall Project-related GHG Emissic

	Original Project	Mitigated Project
Vegetation Type/Carbon Storage	MTCO ₂ e	MTCO ₂ e
Carbon Loss - Existing Vegetation Removal		
Carbon Storage	12,786	8,614
Carbon Sequestration (Annual)	434	286
30-year lifetime sequestration emissions	25,810	17,183
Carbon Gains - From New Vegetation		
Carbon Storage	-11,800	-8,918
Carbon Sequestration (Annual)	-5	-4
30-year lifetime sequestration emissions	-11,961	-9,039
Total Project Lifetime Emissions	13,849	8,144
Total Project Annual Emissions	462	271

CHAPTER 3 COMMENTS AND RESPONSES

3.1 INTRODUCTION

This section contains the comment letters received on the Draft EIR. Following each comment letter is a response by Napa County intended to supplement, clarify, or amend information provided in the Draft EIR, or to refer the reader to the appropriate place in the document where the requested information can be found. Comments not directly related to environmental issues may be discussed or noted for the record. Where text changes in the Draft EIR are warranted based on comments on the Draft EIR, those changes are included in Chapter 2, *Revisions to the Draft EIR*.

Occasionally, a response to a comment provides a cross-reference to another response to comment. This occurs when the same or a very similar comment was made or question asked, and an appropriate response was included elsewhere.

3.2 GLOBAL COMMENT RESPONSE

This section presents responses to wildfire issues raised in multiple comments. In addition to responding individual comments, Napa County has developed a global comment response to address the comments comprehensively. The global comment response number is also identified in the individual response to comment so that reviewers can readily locate all relevant information pertaining to the wildfire issues.

Global Comment Response 1: Wildfire Risk Procedures and Management *Introduction*

Several comments suggested that the Draft EIR did not sufficiently evaluate the proposed project's effect on wildfire and questioned the wildfire risk procedures and management discussed in the Draft EIR. Comments also requested additional information regarding wildfire risk procedures and management that would be implemented during construction and operation of the proposed project.

The proposed project's effect on wildfires was assessed in the Initial Study Environmental Checklist (Draft EIR Appendix B), and is summarized in Draft EIR Chapter 1, *Introduction* (page 1-7), and in Draft EIR Section 3.6, *Hazards and Hazardous Materials* (page 3.6-6).

Draft EIR page 1-7 (summarizing text from page 23 of the Wildfire section of the Initial Study, in Appendix B of the Draft EIR) states that project construction would require the presence of

some vehicles and heavy equipment that could spark and ignite flammable vegetation, but that the risk of construction igniting a fire would be low because vegetation would be cleared before development of the vineyard. Page 1-7 of the Draft EIR also states that operations and maintenance activities would be similar to activities already occurring in the project area, which include operation of an existing vineyard.

Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant (see Final EIR Chapter 2, *Revisions to the Draft EIR*). This information describes practices currently implemented through an Emergency Action Plan on the adjacent Stagecoach property that is owned by the Applicant (**Final EIR Appendix A**) and that would be implemented for the proposed project.

Wildfire Risk Procedures and Management Applicable to the Proposed Project

Numerous procedures and management practices are currently in place at the adjacent Stagecoach vineyard owned by the Applicant to minimize fire risk. These procedures and practices would be implemented during both construction and operation of the proposed project:

- Equipment, fuels, and chemicals would be stored in receptacles and areas that would be appropriate for reducing the risk of fire ignition.
- Equipment would be allowed to cool during a break before refueling.
- No equipment would be operated that would have the potential to create a spark when the National Weather Service issues a Red Flag Warning.
- All existing Stagecoach equipment is equipped, and any future equipment would be equipped, with fire extinguishers. Equipment operators would be trained by a qualified professional during onboarding and annually in best fire prevention practices and the use of fire equipment.
- Brush would be burned in accordance with the standards of the California Department of Forestry and Fire Protection, and only on approved burn days with appropriate permits and/or authorization from the Bay Area Air Quality Management District.
- In accordance with standard practice, blasting would occur only after vegetation has been cleared from the site, reducing the fuel load in the area.
- A fire safety plan would be provided to Napa County for approval and the approved plan would be supervised by a licensed third-party vendor during blasting.
- All current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach Emergency Action Plan (EAP; Final EIR Appendix A) to address site-specific environment and evacuation nuances for fire, emergency, etc. The EAP includes: preventive measures such as establishing and maintaining firebreaks around the perimeter of the property and establishing safe work zones as necessary; safety measures that would be implemented during an incident including an evacuation

plan, communication procedures, and isolation and securing of power and other ignition sources; and reporting and communication protocols with management and emergency officials.

Therefore, the Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015).

References to this Global Comment Response are provided in Responses to Comments I1-3 through I1-7, I1-9, I2-3, I3-3, I3-54 through I3-63, I5-6 through I5-9, I5-15, I5-16, and O6-2 through O6-6.

3.3 RESPONSES TO DRAFT EIR COMMENTS

LETTER S1

STATE OF CALIFORNIA

5 4

DEPARTMENT OF VETERANS AFFAIRS

Veterans Home of California, Yountville 190 California Drive Yountville, CA 94559 Telephone: (707) 944-4514 GAVIN NEWSOM, Governor

RECEIVED



MAR 2 2 2021

Napa County Planning, Building & Environmental Services

19 March 2021

Donald Barrella Planner III Napa County Department of Planning, Building and Environmental Services 1195 Third Street, Second Floor Napa, CA 94559

RE: Stagecoach North Erosion Control Plan; Environmental Review Erosion Control Plan #P18-00446-ECPA

Dear Mr. Barrella,

The Veterans Home of California-Yountville owns and operates Rector Reservoir, and Rector Reservoir Water Treatment Plant.

As owners of this valuable resource we are concerned with development in the watershed that could impact water quality and storage capacity in the reservoir.

Elevated turbidity is an on-going challenge in the water treatment process and something we monitor continually. Eroded soils in the watershed can impair water clarity and have the potential to carry pollutants that could impact the quality of water entering the treatment plant.

In addition to water quality, erosion and sedimentation can have a negative impact on the available storage capacity of the reservoir. In fact, the lowest intake port on our intake tower is no longer usable due to the fact that it is buried in sediment. S1-1

HONORING CALIFORNIA'S VETERANS

LETTER S1

We also monitor for chemicals, nutrients and biologics that can impact the ability to treat raw water to drinking water standards. As you know, fertilizers and nutrients can contribute to algae blooms which impact taste and odor of drinking water.

Rector staff will continue to monitor for significant changes in turbidity levels and water quality. We will notify you if we see any trends that we view as outside normal parameters.

Please do not hesitate to contact us if you should have any questions.

Sincerely, C Dónala Callison

Research Analyst II Rector Reservoir Veterans Home of California - Yountville

Letter S1	California Department of Veterans Affairs, Veterans Home of California,
Response	Yountville, Rector Reservoir, Donald Callison, Research Analyst II
	March 22, 2021

S1-1 Napa County thanks the Veterans Home of California, Yountville, for the Draft EIR comments provided and acknowledges the commenter's concern about water quality effects and effects on storage capacity in Rector Reservoir from development in the watershed. The County appreciates that Rector staff will continue to monitor for significant changes in turbidity levels and water quality and notify the County of any trends that are outside normal parameters.

LETTER S2

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DEPARTMENT OF FISH AND WILDLIFE Bay Delta Region 2825 Cordelia Road, Suite 100 Fairfield, CA 94534 (707) 428-2002 www.wildlife.ca.gov

State of California – Natural Resources Agency

GAVIN NEWSOM, Governor CHARLTON H. BONHAM, Director



March 25, 2021

Mr. Donald Barrella Napa County 1195 Third Street, Suite 210 Napa, CA 94559 Donald.Barrella@countyofnapa.org

Subject: Stagecoach North Vineyard Conversion Erosion Control Plan Application #P18-00446-ECPA, Draft Environmental Impact Report, SCH No. 2019100250, Napa County

Dear Mr. Barrella:

California Department of Fish and Wildlife (CDFW) personnel reviewed the draft Environmental Impact Report (EIR) for the Stagecoach North Vineyard Conversion Erosion Control Plan (Project). CDFW is submitting comments on the draft EIR to inform Napa County, as Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

CDFW is a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) and is responsible for the conservation, protection, and management of the State's biological resources (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15386). CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as a California Endangered Species Act (CESA) Permit, a Native Plant Protection Act Permit, or a Lake and Streambed Alteration (LSA) Agreement, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources.

ENVIRONMENTAL SETTING

The 170.15-acre Project area is located within the Rector Reservoir watershed approximately 5 miles northeast of the Town of Yountville. Elevations on the Project site range from 1,660 feet to 2,140 feet above mean sea level. The Project site contains 107.18 acres of chamise/scrub, 51.03 acres of mixed oak woodland, and 8.82 acres of annual grassland habitat. Access to the Project site is via Soda Canyon Road off Silverado Trail in the City of Napa. Surrounding land uses consist of vineyards to the west and north, and undeveloped land to the south and east. The Project site is approximately 1.3 miles east of Rector Creek and 2.8 miles south of Lake Hennessey at approximately 38.46771, -122.31039.

S2-1

PROJECT DESCRIPTION

The proposed Project would develop 116.2 acres of vineyard within 17 vineyard blocks on the Project property. As proposed, the Project would develop 75.17 acres of chamise/scrub habitat, 32.38 acres of mixed oak woodland habitat, 6.56 acres of annual grassland habitat and 2.11 acres of human-altered land and rock outcrop. Proposed vineyard development activities include brush and tree removal, soil ripping, rock removal, blasting, soil cultivation, seeding of a cover crop, mulching, trenching for storm drain and irrigation pipelines, installing a trellis system and wildlife exclusion fence, and laying out vine rows. The vineyard would be irrigated via existing groundwater wells. Vineyard development is proposed to occur during one season from April to September. Equipment used would include excavators, bull dozers, haul trucks, water trucks, loaders, and farm tractors with trailers. It is estimated that five blasting events would be conducted during the Project. The Project would also include the construction of three rocked water crossings and replacement of one culvert in various streams on the property.

COMMENTS AND CONCERNS

Special-Status Plants

The draft EIR states that the Project will impact 66.26 acres of habitat containing hollyleaved ceanothus (*Ceanothus purpureus*), 0.02 acres of habitat containing narrowflowered California brodiaea (*Brodiaea leptandra*), and 0.02 acres of habitat containing two-carpellate western flax (*Hesperolinon bicarpellatum*), all of which are California Rare Plant Rank (CRPR) 1B.2 species. CRPR 1B species are rare throughout their range and most have declined significantly over the last century. The majority are also endemic to California, and .2 species are considered moderately threatened in California (i.e., 20-80% occurrences threatened/moderate degree and immediacy of threat). Holly-leaved ceanothus is limited in extent to the North Coast Range north of the Bay Area, mainly in Napa and Sonoma Counties according to the California Native Plant Society (see: <u>https://calscape.org/loc-California/Ceanothus-purpureus-(Hollyleaved-Ceanothus)?srchcr=sc5fc6097462f24</u>). As holly-leaved ceanothus is geographically limited in range and endemic to California, as well as rare throughout its range based on the 1B.2 ranking, CDFW concludes that it likely meets CEQA Guidelines section 15380 criteria.

CDFW cannot determine if Mitigation Measure 3.3-1a reduces impacts to less-thansignificant because the draft EIR does not compare the habitat value of the preservation area with the habitat value of the Project site. The draft EIR should include a detailed description of the habitat value for special-status plants in the Project area and proposed preservation area. CDFW recommends the following additions and revisions to Mitigation Measure 3.3-1a. S2-3

S2-4

LETTER S2

Mr. Donald Barrella Napa County March 25, 2021 Page 3

- The minimum 79.68-acre Preservation Area (Figure 3.3-6) shall be of equal or greater habitat value than the Project area for the special-status plant species impacted by the Project, as determined by a qualified botanist, and shall be protected under a conservation easement prior to Project construction. In addition, a mitigation and monitoring plan and long-term management plan shall be prepared and implemented, funding shall be provided for management plan, and a land manager shall be designated prior to Project construction. Alternatively, a financial security for implementing requirements described above, such as a letter of credit, shall be provided to the County prior to Project construction. If a security is provided, the conservation easement shall be recorded within 18 months of the initiation of Project construction. The County shall hold the security for all uncompleted obligations described above, including achieving success criteria outlined it the mitigation and monitoring plan.
- A mitigation and monitoring plan shall be prepared by a qualified botanist (not biologist) for CDFW review and receive CDFW written approval prior to starting Project construction. A botanist approved by CDFW may approve the plan if CDFW provides written documentation that we do not have the resources to review it. The mitigation and monitoring plan shall include, but not be limited to: 1) an onsite habitat enhancement and planting plan, and off-site plantings if there is not enough suitable habitat within the proposed preservation area on the property to support a 3:1 individual plants planted to individual plants removed ratio for perennial plants or 3:1 percent cover for annual plants; 2) success criteria, 3) a minimum of 5 years of monitoring, and 4) control of invasive species an any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a conservation easement with the same requirements as outlined above. As holly-leaved ceanothus likely meets CEQA Guidelines section 15380 criteria, and the other species may as well, a minimum 3:1 mitigation ratio is recommended to reduce impacts to less than significant and avoid triggering a mandatory finding of significance [CEQA Guidelines, § 15065, subd. (a)(1)], as a significant area of habitat will be permanently removed.

Furthermore, Mitigation Measure 3.3-1d implies that the Project must be revised to avoid all narrow-flowered California brodiaea populations; however, Table 3.3-5A shows that the Mitigated Proposed Vineyard Blocks will still impact 0.02 acres (or 2,472 individual plants) of two-carpellate western flax. Mitigation Measure 3.3-1d should be revised in accordance with 3.3-1b and 3.3-1f if narrow-flowered California brodiaea will be impacted by the Project.

Nesting Birds

Mitigation Measure 3.3-1k does not reduce impacts to birds to less-than-significant because it does not include monitoring of nests during construction to determine if

S2-6

S2-7

S2-8

established no-disturbance buffers adequately avoid disturbance. Additionally, conducting a survey two weeks prior to starting construction increases the likelihood of new nests going undetected between the survey and start of construction. CDFW recommends that Mitigation Measure 3.3-1k be revised as follows (added language in **bold italics**, deleted language in strikethrough):

For earth-disturbing activities occurring between February 1 and August 31 (coinciding with the grading season of April 1 through October 15 [Napa County Code Section 18.108.070.L] and the bird breeding and nesting seasons), a qualified biologist shall conduct a preconstruction survey for nesting birds in all suitable habitat in the development area, and where there is potential for impacts adjacent to the development area (typically within a minimum of 500 feet from of the Project area project activities). A qualified biologist is defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site. The preconstruction survey shall be conducted no earlier than 147 days before vegetation removal and the start of grounddisturbing activities. Should ground disturbance begin later than 147 days from the survey date, the survey shall be repeated. A copy of the survey results shall be provided to the Napa County Conservation Division and CDFW for review and written acceptance before the start of work.

After work begins, if there is a period of no work activity of five days or longer during the bird breeding season, the survey shall be repeated to ensure that birds have not established nests during the period of inactivity. If nesting birds are found, **a qualified biologist** the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County's Conservation Division and USFWS and/or CDFW before the start of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species, as determined by a qualified biologist in consultation with the County's Conservation Division and USFWS and/or CDFW.

Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County before the start of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.

Active nests discovered during the survey shall be monitored daily during construction activities by a qualified biologist for one week, and weekly thereafter, to ensure that established no-disturbance buffers are adequate in avoiding impacts to nesting birds. Monitoring shall continue in this manner until the nest is no longer active, as determine by a qualified biologist. If the qualified biologist observes nesting birds displaying potential disturbance behaviors, the qualified biologist shall cease all construction activities; and S2-9 Cont.

CDFW shall be consulted with regarding avoidance and minimization measures prior to resuming construction activities. In this event, construction activities shall not resume without CDFW's written permission.

Using alternative methods to flush out nesting birds before preconstruction surveys, whether physical (removing or disturbing nests by physically disturbing trees with construction equipment), audible (using sirens or bird cannons), or chemical (spraying nesting birds or their habitats) would be an impact on nesting birds and is shall be prohibited. For any act associated with flushing birds from the project areas, consultation with USFWS and CDFW should occur before any activity that could disturb nesting birds.

REGULATORY REQUIREMENTS

California Endangered Species Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in take of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required to obtain a CESA ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species (Pub. Resources Code, §§ 21001, subd. (c), 21083; CEQA Guidelines, §§ 15380, 15064, and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings and a Statement of Overriding Consideration (SOC). The Lead Agency's SOC does not eliminate the Project proponent's obligation to comply with CESA.

Lake and Streambed Alteration

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW, as a Responsible Agency, will consider the CEQA document for the Project and may issue an LSA Agreement. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

S2-10

S2-9

Cont.

Migratory Birds and Raptors

CDFW has authority over actions that may disturb or destroy active nest sites or take birds. Fish and Game Code sections 3503, 3503.5, and 3513 protect birds, their eggs, and nests. Fully protected species may not be taken or possessed at any time (Fish and Game Code, § 3511). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

ENVIRONMENTAL DATA

CEQA requires that information developed in EIRs and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB online field survey form and other methods for submitting data can be found at the following link: <u>https://wildlife.ca.gov/Data/CNDDB/Submitting-Data</u>. The types of information reported to CNDDB can be found at the following link: <u>https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals</u>.

FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

CDFW appreciates the opportunity to provide comments on the DEIR for the proposed Project and is available to meet with you to further discuss our concerns. If you have any questions, please contact Mr. Garrett Allen, Environmental Scientist, at <u>Garrett.Allen@wildlife.ca.gov</u>; or Ms. Melanie Day, Acting Senior Environmental Scientist (Supervisory), at <u>Melanie.Day@wildlife.ca.gov</u>.

Sincerely,

DocuSigned by: 61 regg Enickson

Gregg Erickson Regional Manager Bay Delta Region

cc: State Clearinghouse #2019100250

Letter S2California Department of Fish and Wildlife, Bay Delta Region, Gregg Erickson,ResponseRegional Manager
March 25, 2021

- **S2-1** Napa County thanks the California Department of Fish and Wildlife (CDFW) for the Draft EIR comments provided as a trustee and responsible agent pursuant to CEQA. The commenter describes CDFW's jurisdiction over the conservation, protection, and management of fish and wildlife resources. As noted in Draft EIR Section 2.7, *Anticipated Regulatory Requirements, Permits and Approvals* (page 2-13), anticipated regulatory approvals include a Lake and Streambed Alteration Agreement with CDFW and compliance with the California Endangered Species Act, as stated in the comment.
- **S2-2** The comment describes the environmental setting for the proposed project. The comment is noted.
- **S2-3** The comment summarizes the project description. The comment is noted.
- **S2-4** The comment states that holly-leaved ceanothus is limited in range and likely meets State CEQA Guidelines Section 15380 criteria. The comment is noted. Draft EIR Mitigation Measure 3.3-1b provides measures to replace holly-leaved ceanothus at a 1:1 ratio (mitigated:affected); as stated in Response to Comment S2-7, this has been increased to 1.2:1 to ensure that 100 percent of the plants removed would be replaced within the monitoring period, which was the intent of the Draft EIR mitigation measure, and Mitigation Measure 3.3-1a requires monitoring, enforcing, and defending of the mitigation easement in perpetuity (see Final EIR Chapter 2, *Revisions to the Draft EIR* and Chapter 4, *Mitigation Monitoring and Reporting Program*).
- **S2-5** The comment states that the habitat value for special-status plants on the project site and in the Preservation Area should be described and provides specific recommendations in Comments S2-6 and S2-7. Special-status plant species known to occur on or near the project site and their associated habitat that occurs on within the project site are described on Draft EIR pages 3.3-6 through 3.3-11 and 3.3-13 through 3.3-17 and impacts on special-status plant species are assessed in Impact 3.3-1 in Chapter 3, *Biological Resources*. See Responses to Comments S2-6 and S2-7.
- **S2-6** Mitigation Measure 3.3-1a has been revised as indicated below in response to the recommended language; see also Final EIR Chapters 2 and 4:

Mitigation Measure 3.3-1a: <u>In order to mitigate impacts to special-status plants</u> resulting from development of the proposed project, the Applicant shall place in permanent protection <u>a</u> A Preservation Area (**Figure 3.3-6** <u>of the Draft EIR</u>) <u>of</u> <u>no less than 79.3</u> totaling a minimum of 79.68 acres <u>of equal or greater habitat</u> value than the locations of the special-status plants impacted by the proposed project, as determined by a qualified professional knowledgeable and experienced in the local botany and habitats with the potential to occur at the project site. shall be <u>All acreage</u> designated for preservation <u>shall be identified as</u> <u>such</u> in a mitigation easement, with an <u>accredited land trust</u> organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection acceptable to Napa County. <u>The mitigation easement shall be</u> <u>prepared in a form acceptable to County Counsel and entered into and recorded</u> with the Napa County Recorder's office prior to any earth disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first. In no case shall earthmoving activities be initiated until said mitigation easement is recorded.

Any request by the Applicant for an extension of time to record the mitigation easement shall be considered by the Planning, Building and Environmental Services Department (PBES) Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension.

The land placed in protection shall be restricted from development and other uses that would <u>potentially</u> degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion)<u>, and should be otherwise restricted by the existing goals and policies of Napa County with the exception that access to and use, Maintenance, and repair of the two existing groundwater supply wells within the project site (shown on Figure 1 in Draft EIR Appendix J, Water Availability Analysis) are allowed. and should be otherwise restricted by the existing goals and policies of Napa County.</u>

Erosion Control Plan #P18-00446-ECPA shall be revised before approval to increase the Preservation Area to <u>a minimum of 79.3</u> 79.68 acres, consistent with the modified block configurations detailed in **Figure 3.3-6**. The owner/permittee shall record the mitigation easement within 60 days of approval of Erosion Control Plan Application (ECPA) #P18-00446-ECPA by the County; however, in no case shall the ECPA be initiated until said mitigation easement is recorded.

With respect to the 79.3 acres of special-status species and habitat protected under Mitigation Measures 3.3-1b, 3.3-1d, 3.3-1f, and 3.3-1h, the Applicant shall provide an endowment to the accredited land trust that is sufficient to ensure that the mitigation easement is monitored, enforced, and defended in perpetuity. The amount of the endowment shall be calculated using the Center for Natural Land Management's Property Analysis Record software, or an equivalent methodology if preferred by the land trust and accepted by the Land Trust Alliance, which provides the systematic and objective determination of the amount of the endowment in light of the conservation values to be protected by the easement. <u>The record showing how the amount of the endowment was calculated shall be</u> <u>provided to County Counsel as part of its review of the mitigation easement. Any</u> <u>county staff time spent assessing and monitoring said provision shall be charged</u> <u>to the permittee, at the rate in effect at the time assessment and monitoring</u> <u>occurs, pursuant to County Fee Policy Part 80.</u>

In accordance with Napa County Code Section 18.108.100 (Erosion Hazard Areas — Vegetation Preservation and Replacement), any special-status plants or populations inadvertently removed as part of the development authorized under #P18-00446-ECPA shall be replaced onsite at a ratio of 2:1 at locations with similar habitat, as approved by the planning director. A mitigation plan shall be prepared. At a minimum, the mitigation plan shall_identify the locations where the plants will be planted in suitable habitat on the project parcel, the success criteria, and monitoring activities for the populations. The mitigation plan shall be finalized before planting and the start of construction activities. Any replaced special-status plants shall be monitored for at least three years to ensure an 80 percent survival rate.

S2-7 The recommended text related to the mitigation and monitoring plan for special-status plants inadvertently removed as part of the development authorized under #P18-00446-ECPA that was included in Draft EIR Mitigation Measure 3.3-1a has been moved to Mitigation Measure 3.3-4 (see Final EIR Chapters 2 and 4 and Response to Comment S2-6) with the following exception; a 3:1 ratio has not been incorporated. The 2:1 ratio is consistent with Napa County General Plan Conservation Element Policy CON-17 that requires the preservation and protection of sensitive biotic communities and habitats of limited distribution.

For the individual plant Mitigation and Monitoring Plans in Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h, the mitigation ratio has been increased to from 1:1 to 1.2:1 with an 80 percent survival rate to ensure that 100 percent of the plants removed would be replaced within the monitoring period, which was the intent of the Draft EIR mitigation measure, and Mitigation Measure 3.3-1a requires monitoring, enforcing, and defending of the mitigation easement in perpetuity (see Final EIR Chapters 2 and 4). Holly-leaved ceanothus grows abundantly on this project site and would not require a 3:1 ratio to obtain an 80 percent survival rate. See also Responses to Comments O1-27 and O1-28.

S2-8 Mitigation Measure 3.3-1d does not imply that all narrow-flowered California brodiaea individuals would be preserved; it includes mitigation specifically to avoid impacts on the narrow-flowered California brodiaea that are located outside the project area and would be retained by the proposed project (91 percent of the acreage). As stated in Table 3.3-5a, 0.02 acre would be affected. Further, language has been added to

Mitigation Measure 3.3-1d to replace any narrow-flowered California brodiaea plants inadvertently removed during project construction.

- **S2-9** The recommended text related to nesting birds has been added to Mitigation Measure 3.3-1k (see Final Chapters 2 and 4).
- **S2-10** As stated in Response to Comment S2-1, Draft EIR Section 2.7, *Anticipated Regulatory Requirements, Permits, and Approvals* (page 2-13), notes that anticipated regulatory approvals include compliance with the California Endangered Species Act. Table ES-2 in the Draft EIR Executive Summary presents a summary of the impacts and mitigation measures identified for the proposed project to avoid potential impacts or reduce them to a less-than-significant level. Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 in particular would reduce identified impacts on biological resources to less-than-significant levels.
- **S2-11** As stated in Response S2-1, Draft EIR Section 2.7, *Anticipated Regulatory Requirements, Permits, and Approvals* (page 2-13), notes that anticipated regulatory approvals include a Lake and Streambed Alteration Agreement with CDFW. Mitigation Measure 3.3-3 (page 3.3-59) and the Water Quality Condition of Approval in Section 3.7, *Hydrology and Water Quality* (page 3.7-22) also state that all necessary permits (including a Lake and Streambed Alteration Agreement) shall be obtained before the construction of stream crossings and culvert replacement, and the owner/permittee shall comply with all permit minimization and mitigation measures.
- **S2-12** As stated by the comment, the Draft EIR identifies CDFW's authority over actions that may disturb or destroy active nest sites or take birds and migratory bird protection under the Migratory Bird Treaty Act (Draft EIR pages 3.3-17, 3.3-22 through 3.3-24, and 3.3-54). Draft EIR Mitigation Measure 3.3-1k (page 3.3-55) would reduce the potentially significant impact on nesting or protected migratory birds and raptors to a less-than-significant level by requiring preconstruction surveys that would identify any nesting birds, and if found, requiring observation of no-disturbance zones around nest sites.
- **S2-13** The comment that any special-status species detected during project surveys should be reported in the California Natural Diversity Database is noted. The database no longer tracks sensitive natural communities, only special-status species.
- **S2-14** Napa County will pay the environmental filing fee to CDFW when the Notice of Determination is filed.
- **S2-15** The contact information for CDFW is noted.

LETTER O1

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01-4



CENTER for BIOLOGICAL DIVERSITY

Because life is good.

3/29/2021

Sent via email

Don Barrella, Planner Napa County Department of Planning, Building and Environmental Services 1195 Third Street, Suite 210 Napa, CA 94559 Donald.Barrella@countyofnapa.org

Re: Comments on Stagecoach North Erosion Control Plan Draft Environmental Impact Report (State Clearinghouse No. 2019100250)

Dear Mr. Barrella:

These comments are submitted on behalf of the Center for Biological Diversity (the "Center") regarding the Stagecoach North Erosion Control Plan #P18-00446 (the "Project"). The Center has reviewed the Draft Environmental Impact Report ("DEIR") closely and is concerned that the DEIR fails to properly disclose, analyze and mitigate potentially significant environmental impacts to biological resources, greenhouse gas emissions ("GHGs"), water supply, and water quality, among other effects. The Center urges the County to correct the deficiencies identified in this letter and recirculate a new DEIR for public comment prior to preparing a Final EIR for the Project.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 1.7 million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Napa County.

CEQA and the CEQA Guidelines impose numerous requirements on public agencies proposing to approve or carry out projects. Among other things, CEQA mandates that significant environmental effects be avoided or substantially lessened where feasible. (Pub. Res. Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d).) Unfortunately, the DEIR for the Project fails to comply with CEQA and the CEQA Guidelines in numerous respects.

I. The Project Description Fails to Comply with CEQA

LETTER O1

Under CEQA, a "project" is defined as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (*Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214, 1222 (citing CEQA Guidelines § 15378, subd. (a).) An "accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." (*Cnty. of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193; (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 655 (project description held unstable and misleading) [hereinafter "*San Joaquin Raptor*"].) "However, a curtailed, enigmatic or unstable project description draws a red herring across the path of public input." (*San Joaquin Raptor*, 149 Cal.App.4th, at 655.)

An inaccurate or truncated project description is prejudicial error because it fails to "adequately apprise all interested parties of the true scope of the project." (*See City of Santee v. Cnty. of San Diego* (1989) 214 Cal.App.3d 1438, 1454-55 [hereinafter "*City of Santee*"].) "Only through an accurate view of the project may the public and interested parties and public agencies balance the proposed project's benefits against its environmental cost, consider appropriate mitigation measures, assess the advantages of terminating the proposal and properly weigh other alternatives." (*San Joaquin Raptor*, 149 Cal.App.4th, at 655.)

Here, the Project Description and other sections of the DEIR present a convoluted picture of planned vineyards within the Project site and fails to clarify which proposed mitigation measures will be adopted. Specifically, the DEIR makes it unclear what the actual final acreage of the project will be. The DEIR describes the Proposed Project as including a cleared area of 116.2 acres and including 91.3 acres of vineyard blocks (DEIR at 2-7), but later describes a version of the Project designed to mitigate harms to biological resources that will only require clearing 90.47 acres to build vineyard blocks of unspecified total acreage. (DEIR at 3.3-48.) However, at no point does the DEIR clearly commit to these mitigation measures, making it difficult to determine the acreage and impact of the final project.

The DEIR compounds this confusion by describing the Project in the Alternatives Analysis section *without* these mitigation measures: "The proposed project would involve development of 91.3 net acres of vineyards within an approximately 116.2-acre cleared area on the project site. (DEIR 5-18 [emphasis added].) This suggests that the biological resources mitigation measures reducing the total cleared acreage would not be implemented, creating substantial confusion about the scope of the Project. This is significant, because the Alternative Analysis rejects environmentally preferable project designs since the Proposed Project is the only version that allows for the development of the 85 to 91 net acres of vineyard blocks on 116.2 acres of cleared area. (DEIR 5-22.) This analysis strongly implies that the Project would not include the biological resources mitigation measures, which would prevent the Project from achieving this acreage goal. (*See id.*; DEIR at 3.3-48.) Conversely, if the Project does include the biological resources mitigation measures, then the DEIR relies on an inaccurate description of the Project to reject environmentally preferable alternatives. (*See* DEIR 5-22.) Either way, the DEIR is ambiguous.

The DEIR analysis relies on multiple versions of the Project, failing to uphold CEQA's mandate that the DEIR "adequately apprise all interested parties of the true scope of the project."

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(See City of Santee, supra, 214 Cal.App.3d at 1454-55.) The Project Description in the DEIR violates CEQA and the DEIR must be modified to comply.	O1-7 Cont.
II. The DEIR's Analysis of and Mitigation for the Project's Greenhouse Gas Emissions is Inadequate	Ţ
The DEIR's analysis of the proposed Project's GHG emissions (DEIR Section 3.2) is inadequate. The Project would result in potentially significant amounts of GHG emissions during construction and operation of the Project. (See DEIR 3.2-35, annual operational emissions of 297 MT per year].) The DEIR's approach violates CEQA's requirement that an EIR fully analyze and attempt to mitigate all potentially significant direct and indirect impacts of a project. (CEQA Guidelines § 15126.2; Pub. Res. Code § 21002.)	01-8
A. The DEIR's accounting of Project GHG emissions is misleading	T
The DEIR's conclusion that GHG impacts will be less than significant is not supported by substantial evidence. The DEIR under-counts the carbon storage that will be lost resulting from the clearing of grassland and scrubland habitat, while failing to offer support for the carbon storage and sequestration values attributed to vineyards.	01-9
The removal and degradation of the Project site's chaparral- and sage scrub-dominated landscapes would also result in high amounts of carbon release. Above-ground biomass of these shrub communities were found to be as high as 3461 g/m^2 , with the amount of carbon stored increasing with the age of the stand (Bohlman et al. 2018). In addition, a substantial amount of carbon may be stored belowground in their roots and in the microbial communities and symbiotic fungi that are associated with the roots (Bohlman et al. 2018; Kravchenko et al. 2019; Soudzilovskaia et al. 2019). The removal and degradation of these systems have been found to result in the loss of both above- and below-ground carbon storage (<i>e.g.</i> , Austreng 2012). And although these systems are often overlooked in the fight against climate change, they are adapted to hot and dry weather conditions and have been found to be resilient to drought (Luo et al. 2007; Vicente-Serrano et al. 2013), which makes them an untapped opportunity to sequester more	01-10
carbon as the climate crisis becomes exceedingly urgent. Therefore, the County should be prioritizing the preservation of carbon in existing ecosystems instead of releasing more greenhouse gases and destroying habitats with carbon storage potential for a Project that would destroy native ecosystems and exacerbate the climate crisis.	01-11
The Project calculates the amount of stored carbon based on values that grossly misrepresent the carbon storage potential of scrub-dominated habitats with the Project's development footprint. The DEIR notes that 40.3 acres of chamise alliance, a scrub-dominated land cover type, would be removed during Project construction. (DEIR App. C at 4.) The DEIR only attributes 2.6 MT carbon per acre of this habitat type, a value taken from the 2012 Napa County Draft Climate Action Plan ("Draft CAP"). (DEIR App. C at 2.) As a threshold matter, the Draft CAP is not a credible source, as that document is out-dated, and more importantly, was never finalized nor adopted, and bears no authority in the County's approach to cataloging GHG emissions. Most importantly, based on the more recent, peer-reviewed, studies cited above, the 2.6 MT carbon per acre is simply incorrect. The carbon storage of scrub-dominated habitats has	01-12
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been found to be as high as 14.0 MT carbon per acre, over 5 times greater than what the DEIR uses to calculate the amount of carbon lost during project construction. Using this metric, the Project would result in the loss of 2,072 MTCO2e by clearing chamise alliance habitat.¹ The DEIR fails to use the best available science when determining the carbon storage lost during construction, and that improper calculation resulted in a significant underreporting of the Project's GHG emissions. The DEIR must be revised to properly disclose and analyze the scope of carbon storage loss that will occur during project construction and operation.

The informational quality of the DEIR is further undermined by inconsistencies in how cleared vegetation will be disposed. The DEIR states that removed vegetation would be burned onsite (DEIR at 3.2-24, 34), but the GHG analysis in Appendix C is based on the assumption that half of cleared vegetation would be burned, and half would be chipped/mulched (DEIR App. C at 3). This is a significant difference, as the amount of carbon released when woody vegetation is burned varies from the amount released, or retained, when plant material is chipped/mulched. The DEIR must be revised to rectify this discrepancy.

III. The DEIR's Alternatives Analysis is Inadequate

CEQA requires agencies to consider reasonable alternatives to a proposed project. A proper analysis of alternatives is essential to comply with CEQA's mandate that significant environmental damage be avoided or substantially lessened where feasible. (Pub. Res. Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); Citizens for Quality Growth v. City of Mount Shasta (1988) 198 Cal.App.3d 433, 443-45.) "Without meaningful analysis of alternatives in the DEIR, neither the courts nor the public can fulfill their proper roles in the CEQA process [Courts will not] countenance a result that would require blind trust by the public, especially in light of CEQA's fundamental goal that the public be fully informed as to the consequences of action by their public officials." (Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Ca1.3d 376, 404.) Critically, an EIR's consideration of alternatives must "foster informed decision-making and public participation." (CEOA Guidelines § 15126.6(a); Laurel Heights, 47 Ca1.3d at 404 ["An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision-making."].) The discussion of alternatives must focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede the attainment of the project objectives to some degree or would be more costly. (CEQA Guidelines § 15126.6(b).) The DEIR fails to meet this requirement because its analysis of the Project alternatives is inadequate.

A. The County improperly narrowed Project objectives to manufacture a basis for rejecting environmentally preferable alternatives

The DEIR employs improperly narrow project objectives to reject environmentally superior alternatives. Specifically, the DEIR defines the Project's goals as developing between 85-91 acres of vineyard, ensuring that only a very narrow range of alternatives will achieve the

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¹ 3461 g/m^{2 =} 14.00 MT carbon/acre x 40.3 acres = 564.5 MT carbon x 3.67 (conversion factor, see DEIR App. C at 4) = 2,071 MTCO2e.

Project's goals and artificially manufacturing a basis for rejecting environmentally superior alternatives. (*See* DEIR at 5-2.)

When drafting an EIR, a project's objectives may not be so narrowly defined that they essentially preordain the selection of the agency's proposed alternative. (*North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 668-670 [EIR violated CEQA where it narrowly defined project a project objective, then dismissed alternatives that would not accomplish this objective].) Case law under CEQA's federal equivalent, the National Environmental Policy Act ("NEPA") can be helpful in interpreting CEQA, and California courts agree that "NEPA cases continue to play an important role in adjudication of CEQA cases, especially when a concept developed in NEPA decisions has not yet been applied to CEQA cases." (*Del Mar Terrace Conservancy, Inc. v. City Council* (1992) 10 Cal.App.4th 712, 732.) "The "purpose" of a project is a slippery concept, susceptible of no hard-and-fast definitions. One obvious way for an agency to slip past the strictures of NEPA is to contrive a purpose so slender as to define competing "reasonable alternatives" out of consideration (and even out of existence). The federal courts cannot condone an agency's frustration of Congressional will." *Simmons v. U.S. Army Corps of Eng'rs* (7th Cir. 1997) 120 F.3d 664, 669.

Here, the DEIR "fixes" the results of its alternatives analysis by stating that the Project goals are to develop a vineyard of a minimum size only possible under the preferred project alternative. Of the ten "project objectives" listed in the DEIR, the objective of "[d]evelop[ing] . . . approximately 85-91 net planted acres" of vineyards is the only one not satisfied by the environmentally preferable alternatives. (DEIR at 5-1-2.) Moreover, despite listing ten objectives at the beginning of the alternatives section, the DEIR repeatedly makes clear that only two matter: planting 85-91 acres of vineyard and expanding vineyard production. (*See* DEIR at 5-22 (noting that planting 85-91 acres of vineyard is the "main objective"); DEIR at 5-18 (calling the installation of the new vineyard the "basic objective" of the Project).

Given this extremely specific project objective, the DEIR leaves no room for meaningful consideration of alternatives to the preferred project. By including such specific elements—*down to the net acreage of vineyard to be planted*—as necessary project objectives, the DEIR preordains the development of the Project. (*See* DEIR at 5-22 ["The Increased Preservation Area Alternative and Increased Watercourse Setbacks Alternative would partially meet the project objectives, though not the main objective to develop approximately 85-91 net planted acres."].) Moreover, the analysis that results from removing such a high level of specificity from the Project objective illuminates the fact that there is no other legitimate reason for the DEIR to adopt the chosen version of the Project, which is substantially more environmentally harmful than the two alternatives explored in the DEIR. (*See* DEIR at 5-8, 5-15.)

In fact, the environmentally preferable alternatives would likely provide better means of achieving several of the other identified project goals. Specifically, the DEIR identifies minimizing erosion, sustainable farming, minimizing impacts on special status plant and animal species, and using water efficiently as project goals. (DEIR 5-2.) The environmentally preferable alternative would almost certainly be more likely to achieve all these goals than the version of the Project chosen. (*See* DEIR at 5-8, 5-15.) This further highlights the disingenuous nature of the alternatives analysis: While the County has included many goals beyond building a vineyard

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of a certain acreage, only building a vineyard of a certain size is seriously considered in the alternatives analysis when actually deciding which version of the Project to select. (DEIR 5-22.)	01-19 Cont.
By including such specific elements as required objectives of the Project–and refusing to analyze a range of reduced size alternatives–the DEIR preordains the development of the Project as proposed, in violation of the authorities cited above.	01-20
B. The DEIR does not explain why the environmentally preferable alternatives are not economically feasible beyond the failure to meet one impermissible, narrowly drawn project goal	T
The DEIR fails to provide satisfactory explanation of why the environmentally preferable alternative is not feasible. The DEIR identifies the Increased Preservation Alternative as the environmentally superior alternative. (DEIR at 5-23.) However, the DEIR rejects both the Increased Preservation Alternative and Increased Watercourse Setback Alternative because they would allow for the development of fewer acres of vineyard. (DEIR at 5-22.) In rejecting these alternatives, the DEIR relies entirely on the difference in acreage between the proposed project and environmentally preferable alternatives. (<i>Id.</i>) Moreover, the DEIR arrives at this conclusion in two short paragraphs. (DEIR at 5-22–5-23.)	01-21
As discussed in the above section, the narrowness of the DEIR objective of developing 85-91 acres of vineyard is impermissible narrowing of the Project goals. Because this impermissible objective is the only reason that the DEIR appears to reject two environmentally preferable alternatives that otherwise appear satisfy the other project goals (sometimes better than the proposed project), the analysis in this section of the EIR is insufficient. Because of this, the DEIR fails to comply with CEQA's requirement that all feasible mitigation measures be adopted. (<i>See</i> Pub. Res. Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); <i>Citizens for Quality Growth v. City of Mount Shasta</i> (1988) 198 Cal.App.3d 433, 443-45.)	01-22
The Increased Preservation Area Alternative should be the focus of the Project DEIR. Excluding the improperly narrow project objective of creating a vineyard of at least 85 acres, the Increased Preservation Area Alternative would satisfy the project objectives while representing an environmentally superior project as compared to the proposed Project. Avoiding impacts on an additional 6.29 acres of biological communities while building two thirds of the expected vineyard acreage is both feasible and achieves the basic Project goal of expanding vineyard acreage. The DEIR errs in declining to adopt this alternative.	01-23
C. The DEIR concludes that the environmentally preferable alternatives would have worse erosion-related outcomes because less land will be subject to erosion control measures without proper analysis	
The DEIR considers two project alternatives, both of which would require less clearing and would preserve more plant resources on the property. (DEIR at 5-4, 5-11.) The DEIR's discussion of both of these alternatives draws the suspect conclusion that they will be worse for erosion. (DEIR at 5-11, 5-18.) This conclusion is inadequately supported by specific evidence,	01-24
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and instead relies on unsupported generalizations that do not meet CEQA's mandate to provide analysis that allows the public to fully assess the distinctions between alternative version of the Project.

Specifically, the DEIR concludes that both these alternatives, despite including the removal of fewer native trees and plants, would lead to less soil loss than the Project, because the Project includes an erosion control program. (DEIR 5-11, 5-18.) However, the DEIR includes no analysis explaining why the erosion control program would be superior to leaving the additional tree cover and local scrub in place as a means of preventing erosion. (*Ibid.*) Although the soil loss report concludes that the Project will reduce soil loss (DEIR Appendix H at 1-2), there is no analysis in the DEIR explaining whether the specific changes that would result from adopting one of the environmentally preferable alternatives would have any impact on soil retention. (DEIR at 5-11, 5-18.) Instead, the DEIR simply assumes that because the alternatives would reduce the Project area, this would necessarily reduce soil loss with no further analysis. (*Ibid.*)

Because the assumptions underlying the conclusion that the otherwise environmentally preferable alternatives are worse for erosion are not explained, the alternatives analysis here is insufficient to provide the public with the ability to assess the harms and benefits of the chosen project as is required by CEQA.

D. The DEIR fails to consider alternative locations for the Project

Finally, the DEIR should have considered alternative locations for the Project. Although CEQA does not always require that lead agencies consider alternative project locations, doing so here is sensible. The Project is located in a region with high fire risk, where developed agricultural land already exists and could potentially be purchased, reducing the environmental impact of additional land clearing and siting land in a high fire risk area.

The CEQA Guidelines clarify that alternatives analysis should include discussion of alternative project sites that could substantially lessen or avoid significant impact. (14 Cal. Code Regs. § 15126.6(a)-(b).) Although alternative sites do not always need to be explored, they should be where they are potentially viable options for addressing the Project goals. (*See Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, 1179-80. [holding the failure to assess in the EIR whether other available nearby locations for a hotel was a prejudicial error].) This is true even where a developer already owns the property where they intend for a project to be sited. (*Id.* at 1179-80.) In determining whether a lead agency is required to consider alternative locations, courts apply a rule of reasonableness. (*Id.* at 1179.)

Because the Project is set to be constructed on land that is currently full of native scrub, in a region where substantial development of wine producing resources has already occurred at other locations, there is good reason for a court to expect that the County would consider other locations for this project. First, Napa County has been repeatedly ravaged by wildfires that have destroyed homes and wineries, meaning expanding winery land might increase risk of fire through human use and create additional resources firefighters must protect. (*See, e.g.*, Barry Eberling 2020.) Because this project would be sited in the foothills where there is a serious fire risk, the DEIR should have at the very least considered the option of siting the Project elsewhere

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in the county or purchasing developed vineyard land from another winery to avoid the risks of expanding winery use in such an environmentally sensitive area.

Failing to even discuss the possibility of choosing an alternative site for the Project despite documented fire risks in the area and the strong possibility other agricultural land could be obtained nearby leaves the alternatives analysis incomplete.

IV. The DEIR's Biological Resources Analysis and Mitigation Measures are Inadequate

Napa County is a biodiversity hotspot both within California and globally. It is located within the California Floristic Province, one of five Mediterranean biomes around the world known for high levels of plant diversity and endemism (Cowling et al. 1996.). Due to its dynamic topography, which ranges in elevation from 0 to 4,200 feet above mean sea level, and its varying microclimates, Napa County boasts a unique and diverse assemblage of habitats that host numerous plants and wildlife (Rundel et al. 2005; Napa County, 2005). Despite covering only 0.5% of California's area, Napa County supports more than one third (>1100) of California's native plant species and 150 special-status plant and wildlife species, including the threatened California red-legged frog (Rana draytonii), the endangered Ridgway's rail (formerly the California clapper rail, Rallus longirostris obsoletus), and the threatened steelhead trout (Oncorhynchus mykiss), Central California Coast DPS. (Napa County, 2005; Thorne et al., 2004). These ecosystems are the backbone of Napa's idyllic scenery, and they provide important ecosystem services vital to the County's prosperity and way of life, such as water quality protection and erosion control. However, development and agricultural expansion into important habitats threaten these biological communities. CEQA requires the lead agency to disclose, analyze and mitigation all impacts on special status species, as well as species listed under the Federal Endangered Species Act or California Endangered Species Act. The DEIR fails to comply with this requirement

A. The mitigation plans for rare plant species require inadequate replacement ratios and lack sufficient oversight to ensure mitigation succeeds

The County acknowledges that the Project will affect seven species of special status plants. However, the County's mitigation plans for plant species lack the necessary detail and guardrails to ensure that mitigation is successful.

i. The DEIR does not include sufficient mitigation for restoring plant populations that will be harmed during construction

The DEIR fails to properly analyze or mitigate the Project's impacts on holly-leaf ceanothus (MM 3.3-1b), two-carpellate western flax (MM 3.3-1f), and green monardella (MM 3.3-1h), all special-status plant species. The DEIR acknowledges the presence of all three of these plant species at multiple locations within the Project site and that Project-related clearing would potentially have a significant impact on these populations, but provides unclear and inadequate mitigation measures. (DEIR 3.3-49, 3.3-51, & 3.3-52.) Mitigation measures for all three species provide that each of these plants will be avoided to the extent feasible and protected March 29, 2021 Page 8

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by a mere 20-foot buffer. (*Ibid.*) Where they cannot be avoided, these plants will be replanted at a 1:1 ratio and subject to five years of preservation monitoring for at least an 80 percent success rate. (*Ibid.*)

These mitigation measures are insufficient to avoid impacts on special-status plants. Figure 3.3-6 illustrates how and where vineyard borders will be modified to avoid some plant populations, but fails to clearly instruct the reader as to where replacement plants will be sited or discuss the feasibility of successful mitigation. (DEIR at 3.3-35.) Although the DEIR attempts to address the issue of uncertainty about mitigation success by implementing Mitigation Measure 3.3-1j to test the viability of replanting certain species in the preservation area before completing the Project, this is only a surface fix. (*See* DEIR 3.3-53.) This measure includes no provisions for how the Project will move forward if mitigation fails, suggesting that Project construction might continue regardless of whether mitigation succeeds. (*Id.*) This additional step is insufficient to ensure mitigation succeeds.

Moreover, a 1:1 replacement ratio and only five years of success monitoring for replacement plants does not sufficiently mitigate the Project's impacts. First, the DEIR should be modified to include a higher replacement ratio for cleared plants. Because of the rarity and endangerment of many of the special-status plants that occur in the Project area, the EIR should implement a minimum 5:1 mitigation ratio, with higher considerations for rarer or more protected species. The 1:1 replacement ratio is unacceptably low. Additionally, the EIR should require at least seven years of monitoring and ensure that it is completed by an independent, qualified group.

ii. The DEIR does not provide sufficient long-term mitigation monitoring for plant species that the Project plans to avoid

For other special status species, including the Franciscan onion (MM 3.3-1c), California brodiaea (MM 3.3-1d), small-flowered calycadenia (MM 3.3-1e), Napa lomatium (MM 3.3-1g), and nodding harmonia (MM 3.31i), the DEIR relies entirely on avoiding these plants during construction through 20-foot setbacks (DEIR at 3.3-50-51.) Here too, the DEIR lacks sufficient analysis. Specifically, the DEIR fails to assess whether and how being located so near active vineyard blocks will affect these plants and entirely ignores the strong possibility that they will not be able to thrive when their surrounding environment is substantially changed. Moreover, none of these mitigation plans include any indication that there will be long-term monitoring for whether these plants continue to occur on the Project site. (*See* DEIR at 3.3-50-51 [descriptions of MM 3.3-1c, MM 3.3-1c, MM 3.3-1e, MM 3.3-1g, and MM 3.3-1i entirely lack any commitment to long term monitoring of avoided plant species].) The EIR should include analysis of the Project's potential effects on these viability plant populations and a commitment to long term monitoring to ensure that they continue to thrive. Should the Project harm these populations despite planned setbacks, the developer should commit to replacing these plants at the ratios discussed above to ensure their continued presence in the area.

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B. The DEIR fails to avoid or mitigate the Project's impacts on native bay forest habitat and tree cover

The DEIR neglects to provide an adequate vegetation restoration plan with monitoring and adaptive management strategies to ensure that the disturbed habitats, native shrublands or otherwise, are restored to pre-project or better conditions. MM 3.3-2a and MM 3.3-2b call for replacing sensitive California bay forest habitat at a 2:1 ratio, however, these measures are not clearly described and much of the destroyed bay forest does not appear to be fully replaced. (DEIR 3.3-56-58.) Moreover, the mitigation measures only appear to describe plans to develop 10 acres of new bay forest, but claim that 17.25 total acres would be developed. (DEIR at 3.3-57.) The County has not provided sufficient clarity about bay forest mitigation measures in the DEIR.

Beyond issues with the clarity of proposed mitigation measures, the 2:1 replacement ratio and monitoring period for bay forest re-growth is insufficient. Because of the rarity and importance of the bay forest habitat, the DEIR should implement a minimum 5:1 mitigation ratio. Further, the DEIR should require at least seven years of monitoring and ensure that it is completed by an independent, qualified group.

The County should incorporate these additional mitigation requirements and analysis in a vegetation restoration plan with identified measurable success criteria and adaptive management strategies to restore all on-site native vegetation to pre-project or better conditions. The vegetation restoration plan should be prepared by a qualified restoration specialist and submitted to CDFW for review and approval within 30 days of start of construction. All mitigation (preservation, restoration/enhancement, or purchased bank credits) should be implemented in consultation with CDFW, local and regional biologists, indigenous groups, and government agencies, and protected in perpetuity, and the mitigation on these lands should include funded long-term monitoring of at least seven years, specified measurable success criteria, and adaptive management strategies. Compliance monitoring should be conducted by a third-party consultant that is authorized by and reports directly to CDFW. Importantly, all conserved plants should be monitored for success for at least seven years from time of planting to ensure that replanting projects are successful.

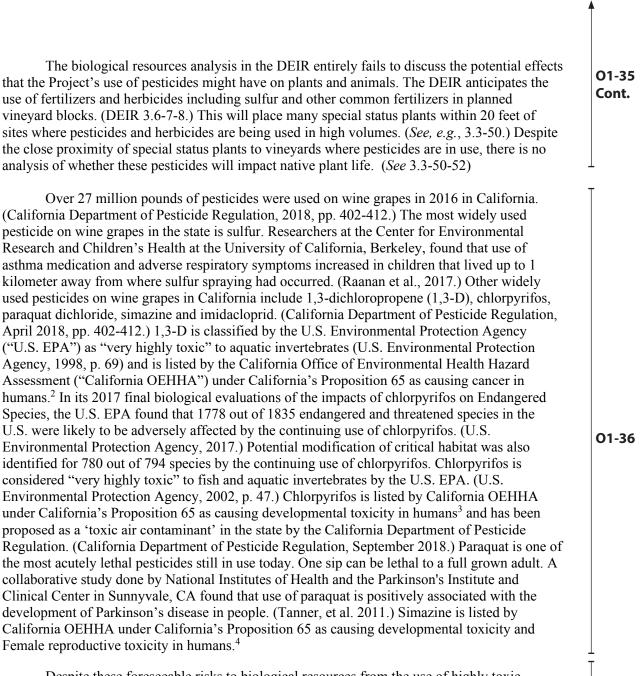
Finally, the County needs to clarify its analysis of tree canopy retention. Even though the DEIR indicates that 99% of tree canopy will be preserved, it is difficult to reconcile this with the plans to clear more than half the trees on the property as part of the Project. (DEIR 3.3-61.) Although the DEIR indicates that the estimated number of trees will in fact be lower than the 1,636 figure cited in the EIR, there is no estimate for the actual number of trees to be removed after implementation of mitigation measures. (*Id.*) The DEIR never closes the logical gap between the initial estimate that over half the trees will be removed and the conclusion that 99% of trees would be preserved. Failing to do this means that the public has insufficient information to understand what the Project's impacts as CEQA requires.

C. The DEIR fails to assess the effects pesticide use would have on special status species in the Project area



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Despite these foreseeable risks to biological resources from the use of highly toxic substances for fertilizer and pesticide, pesticide and fertilizer use is at no point discussed in the biological resources section of the EIR. (*See generally* DEIR Biological Resources Section 3.3.)

² California OEHHA. Chemicals. 1,3-Dichloropropene. Available at: <u>https://oehha.ca.gov/chemicals/13-dichloropropene</u>.

³ California OEHHA. Chemicals. Chlorpyrifos. Available at: <u>https://oehha.ca.gov/chemicals/chlorpyrifos</u>.

⁴ California OEHHA. Proposition 65. Atrazine, Propazine, Simazine and their Chlorometabolites DACT, DEA and DIA Listed Effective July 15, 2016 as Reproductive Toxicants. Available at: <u>https://oehha.ca.gov/proposition-65/crnr/atrazine-propazine-simazine-and-their-chlorometabolites-dact-dea-and-dia-0.</u>

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This flies in the face of CEQA's requirement that an EIR describe potential impacts of the Project as well as feasible measures that could minimize a project's significant adverse impacts. (CEQA Guidelines 15126.4(a)(1).) The DEIR erred in failing to include analysis of fertilizer and pesticide use's potential impact on native plants.

D. The DEIR does not properly avoid or mitigate the Project's impacts on wildlife movement and stream habitats

Habitat connectivity is vital for wildlife movement and biodiversity conservation. Limiting movement and dispersal with barriers (*e.g.*, development, roads, or fenced-off croplands) can affect animals' behavior, movement patterns, reproductive success, and physiological state, which can lead to significant impacts on individual wildlife, populations, communities, and landscapes (Ceia-Hasse et al., 2018; Cushman, 2006; Haddad et al., 2015; Trombulak & Frissell, 2000; van der Ree et al., 2011). Individuals can die off, populations can become isolated, sensitive species can become locally extinct, and important ecological processes like plant pollination and nutrient cycling can be lost. In addition, connectivity between high quality habitat areas in heterogeneous landscapes is important to allow for range shifts and species migrations as climate changes. (Heller and Zavaleta 2009, Cushman et al. 2013). Lack of wildlife connectivity results in decreased biodiversity and degraded ecosystems.

In addition to providing habitat connectivity, buffer zones around the County's aquatic habitats are essential to protect the County's high diversity of plants, fish, aquatic invertebrates, birds, amphibians, and reptiles. The streams (perennial and intermittent), wetlands (including vernal pools and salt marshes), and reservoirs throughout the County support numerous specialstatus flora and fauna, including steelhead trout, Chinook salmon, California freshwater shrimp (Syncaris pacifica), and California red-legged frogs. Species that rely on these aquatic habitats also rely on the adjacent upland habitats (e.g., riparian areas along streams, grassland habitat adjacent to wetlands). In fact, 60% of amphibian species, 16% of reptiles, 34% of birds and 12% of mammals in the Pacific Coast ecoregion (which includes Napa County) depend on riparianstream systems for survival (Kelsey and West 1998). Many other species, including mountain lions and bobcats, often use riparian areas and natural ridgelines as migration corridors or foraging habitat (Dickson et al, 2005; Hilty & Merenlender, 2004; Jennings & Lewison, 2013; Jennings & Zeller, 2017). Additionally, fish rely on healthy upland areas to influence suitable spawning habitat (Lohse et al. 2008), and agricultural encroachment on these habitats has been identified as a major driver of declines in freshwater and anadromous fish (Lohse et al., 2008; Moyle et al., 2011). Thus, to preserve the County's valuable biodiversity in these habitats, it is important to develop and implement effective buffer widths informed by the best available science.

The DEIR attempts to mitigate the Project's impacts on wildlife movement and riparian by implementing limited setbacks and small wildlife corridors. These measures are too insignificant to properly mitigate the Project's effects. First, the watercourse setbacks are insufficient to protect important natural resources and habitat. The DEIR describes adopting setbacks of 55-105 feet based on slope around County designated streams and 50-foot setbacks around other waters. (*See* DEIR 3.3-56.) Although the DEIR bills the second group of setbacks 01-38

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as providing 50-foot buffers, they only provide 26-foot buffers, and allow the remaining 24 feet to include vegetated vineyard, which does not provide the same benefits. (*Id.*)

Second, the wildlife corridors described in the DEIR are not adequate to ensure wildlife connectivity. MM Bio 3.3-4 modifies certain vineyard blocks to create 100-foot wildlife corridor. (Id. at 3.3-60.) Such buffers may be sufficient to provide some connectivity, but they fall short of providing adequate buffers for aquatic habitat. Buffer zones of 50-150 feet are often established along streams and wetlands, and although these may be locally adequate to alleviate water quality concerns in the short-term, they are often insufficient for wildlife (Kilgo et al., 1998; Fischer et al.m 2000; Semlitsch & Bodie, 2003). A literature review found that recommended buffers for wildlife often far exceeded 325 feet, well beyond the largest buffers implemented in practice (Fischer et al., 2000, Robins 2002). For example, Kilgo et al. (1998) recommend more than 1,600 feet of riparian buffer to sustain bird diversity. In addition, amphibians, iconic critters that are considered environmental health indicators, have been found to migrate over 1,000 feet between aquatic and terrestrial habitats through multiple life stages (Cushman, 2006; Fellers & Kleeman, 2007; Semlitsch & Bodie, 2003; Trenham & Shaffer, 2005). Specifically, the California red-legged frog, a threatened species that occurs and has designated critical habitat within Napa County, was found to migrate about 600 feet between breeding ponds and non-breeding upland habitat and streams, with some individuals roaming over 4,500 feet from the water (Fellers and Kleeman 2007). Other sensitive species known to occur in Napa County, such as western pond turtles (Actinemys marmorata), a candidate species under the Endangered Species Act) and California newts (Taricha torosa), have been found to migrate over 1,300 feet and 10,000 feet respectively from breeding ponds and streams (Trenham 1998; Semlitsch and Bodie 2003).

Accommodating the more long-range dispersers is vital for continued survival of species populations and/or recolonization following a local extinction (Semlitsch and Bodie 2003, Cushman 2006). In addition, more extensive buffers provide resiliency in the fact of climate change-driven alterations to these habitats, which will cause shifts in species ranges and distributions (Cushman et al., 2013; Heller & Zavaleta, 2009; Warren et al., 2011). This emphasizes the need for sizeable riparian and upland buffers around streams and wetlands in Napa County, as well as connectivity corridors between heterogeneous habitats. While the Project site may not currently have the above species present, the DEIR should consider the steps that need to be taken to protect potential habitat, while supporting the regional biodiversity by minimizing its impact on crucial riparian habitats and adjacent terrestrial habitats.

V. The DEIR Fails to Accurately Explain and Analyze the Project's Water Use

CEQA requires a DEIR to adequately inform the public and decision-makers regarding the extent of the Project's impacts before project approval. (CEQA Guidelines §15091.) Here, the DEIR does not adequately explain how it determined the necessary amount of the Project's water requirements. The DEIR states that the vineyard will use 82.7 gallons of water a year per vine or 0.5-acre-feet of water per acre per year ("AFY"). (DEIR Appendix J pg. 9.) The vineyard will need an additional 20% of water during the first four years to establish the vines. (DEIR Appendix J pg. 9-10.) Thus, the DEIR claims it will require 54 AFY for the first four years and then 45 AFY after that. (DEIR Appendix J pg. 10.) This amount of water demand is considered

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the industry standard for the area. (DEIR Appendix J pg. 9.) But the Stagecoach South property, owned and operated by the Project Applicant, used 0.53-0.65 AFY from 2014-2017 and only recorded using 0.5 AFY in 2018. (DEIR Appendix J pg. 10.) The DEIR's failure to adequately explain the Project's water supply and demand raise concerns regarding whether the DEIR accurately presents the Project's water use to the public and decision-makers.

A. The Project does not adequately justify its water demand with substantial evidence

"Factual inconsistencies and lack of clarity in the [D]EIR leave the reader—and the decision-makers—without substantial evidence for concluding that sufficient water is, in fact, likely to be available." (Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal.4th 412, 439 (2007) [hereinafter "Vineyard Area"].) The Project implies justification of its water demand through the Stagecoach South water usage in 2018. (DEIR Appendix J, pg. 10.) Yet, the Stagecoach South DEIR initially committed to only 0.33 AFY. (DEIR Appendix J, pg. 10.) The Project's DEIR does not address why the southern property needed to increase its demand from 0.33 to up to 0.65 AFY or how the project proponents reduced the Stagecoach South water usage to be 0.5 AFY after 2017 consistently. The DEIR attempts to remedy this inconsistency by stating that the vineyard was under different management and that in 2018 the new management instituted water-saving practices. (DEIR Appendix J, pg. 10.) But there is no mention of what changed to decrease water usage. California experienced a drought in 2014-2016, had a very wet 2017, and was no longer in a drought state in 2018. This rainfall history seems a more likely reason for decreased water demand than unexplained water-saving practices. Thus, the DEIR's is unclear because it relies on the Stagecoach South's fluctuating water demand without evidence of water-saving practices. Cherry-picking favorable data in order to underestimate the Project's water demand does not meet CEQA's substantial evidence standard.

B. The DEIR water supply analysis is flawed and does not adequately ensure sustainable groundwater supply

CEQA requires more than a declaration of water supply, it requires a thorough evaluation of the impacts associated with providing water to a Project in light of historical, current and projected environmental conditions. A legally adequate water supply analysis must, at a minimum:

- (1) not ignoring or assuming a solution to a project's water supply;
- (2) not limiting the DEIR to the first stages or first years of a project;
- (3) identify a water source that will actually bear likelihood of proving available; and
- (4) if there is uncertainty in the availability of projected future sources, the EIR must identify alternative sources of water and assess the environmental impacts associated with using that water.

(*Vineyard Area*, at 431-32.) Under *Vineyard Area*, if it is impossible to determine future water sources confidently, the DEIR may acknowledge the uncertainty, discuss reasonable alternatives,

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and disclose significant foreseeable environmental effects of each alternative and mitigation measures to minimize the adverse impacts. (*Vineyard Area*, at 432.)

Here, although the Stagecoach North groundwater assessment meets the first requirement, there is uncertainty in the water supply actually proving available due to the supply uncertainty under the long-term drought analysis. There is no discussion of alternative sources to remedy this uncertainty. The drought recharge analysis states that a drought could lead to an 11% reduction in the groundwater basin and states that this is reasonable and not significant. (DEIR Appendix J pg. 19.) There are three problems with this assessment. First, 11% or 111 AF of an entire groundwater basin is significant when considering that it accounts for over two years of annual supply for the Project. Second, the DEIR finds that overall rainfall patterns, not yearly rainfall, generally affect basin recharge rates. (DEIR 3.7-26.) Although the DEIR attempts to claim this could indicate higher groundwater recharge, the opposite is far more likely because as climate change alters the frequency and intensity of rain, the recharge rate will likely decline. (Daniel L. Swain et al. *Increasing Precipitation Volatility in Twenty-First-Century California*, 8 NATURE CLIMATE CHANGE 430 (May 2018).) Third, the recharge rate will not be able to restore the basin once the drought subsides.

The Project's water supply analysis is inadequate because it does not consider the amount of time to recharge the basin post-drought. In examining the basin restoration and recharge rates during normal years, the 111 AF deficit the Project proposes as not significant will take at least five years to restore. The 14% recharge rate from Appendix J finds 69.3 AFY recharge per year for this property's basins. (DEIR Appendix J pg. 15.) The vineyard will use 45 AFY annually (assuming the questionable 0.5 AFY water usage discussed above and post-vine establishment). This analysis leaves a 24.3 AFY recharge surplus during normal years. In the DEIR's multi-dry year scenario, the basin would face a deficit of 111 AFY or 11%. (DEIR Appendix J pg. 19.) The 24.3 AFY of normal year recharge surplus would take five years to recoup this deficit, presuming no other natural or neighboring groundwater users. The DEIR claims this is not significant -but expecting California to have a "normal" water supply for five years in a row is a highly speculative, and runs counter to recent and projected future precipitation trends in California. According to a graph from the United States Geological Service, this has not occurred since 1993-1998. (National Oceanic and Atmospheric Administration, California Drought: 2011-2017, A Story About the Historic Drought, Modeling, Analysis, Predictions, and projections (Last accessed March 24, 2011).) This analysis shows that the Project's water supply is uncertain over the long-term because it will not make up these deficits post-drought, leading to a downward trend in supply availability. The DEIR does not adequately discuss this uncertainty, nor does it discuss alternative water supply options, violating the analytical framework established by Vinevard Area. (Vinevard Area, at 431-32.)

Instead of discussing alternative water sources or actions as CEQA requires, the DEIR simply states that additional reasonable conditions or permit revocation if groundwater monitoring shows significant impacts due to withdraws. (DEIR 3.7-27.) Yet, once built, projects are overwhelmingly allowed to continue, which is why CEQA requires a water supply uncertainty analysis before a project's approval. (*Stanislaus Natural Heritage Project v. County of Stanislaus*, 48 Cal.App.4th 182, 205 (1996). (stating that "[i]t is not mitigation of a significant environmental impact on a project to say that if the impact is not addressed, then the project will

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not be built.")) Completely revoking the permit is unreasonable, and therefore some reasonable alternative water conditions analysis is necessary before approval. (*Vineyard Area*, at 431.) Otherwise, the Project will overdraft the groundwater supply and then find another water source as a reasonable condition of its continued operation. This uncertainty violates CEQA unless the agency completes an analysis of such intermediary water-saving steps and potential environmental impacts must before approving the Project. (*Vineyard Area*, at 431-32.)

In *Preserve Wild Santee*, the court held that "an unexplained discrepancy precludes the existence of substantial evidence to conclude sufficient water is likely to be available for the project." (*Preserve Wild Santee v. City of Santee*, 210 Cal.App.4th 260 (2012), citing *Vineyard Area* at 439 (2012).) The DEIR presents unexplained discrepancies on how much groundwater is available annually. The recharge analysis in this DEIR states that it will recharge 84.1 AFY based on 35-inch annual average rainfall and a 17% deep percolation rate. (DEIR at 3.7-26 ¶ 1). Yet, in Appendix J, the analysis uses a 14% deep percolation rate for the drought analysis because it believes it is more accurate for the property. DEIR, Appendix J, *Estimate of Ground Water Recharge* at 16 ¶2). Although the DEIR appears to use the 14% percolation rate, there cannot be unexplained discrepancies within the DEIR, and this inconsistency requires resolution. Furthermore, since the DEIR notes that rainfall patterns are the basis for recharge rates, not annual rainfall, and as climate change increases the intensity of storms and decreases the length of California's wet season, this will lower the percolation rate. (Swain, *Increasing Precipitation Volatility in Twenty-First-Century California* at 430.)

Lastly, the DEIR does not provide substantial evidence of the Project's water supply availability. The Project's water supply will be entirely from groundwater pumps that abut the Stagecoach South property. (DEIR 3.7-25 ¶4) The DEIR discusses how Stagecoach South initially used the pumps but claims it was only to maintain the pumps, not for Stagecoach South's additional water needs. (DEIR Appendix J pg. 9.) The DEIR states explicitly that the Project will have exclusive use of the pumps if approved. (DEIR Appendix J pg. 9.) Since this is a vineyard expansion and the Project will use groundwater previously pumped by Stagecoach South, the Project DEIR needs to illustrate that Stagecoach South is not over-drafting its water supply. The overlapping supply issues are especially pressing because The Project noted that Stagecoach South had used twice that amount of water its DEIR initially claimed necessary. (DEIR Appendix J pg. 10.) By requiring an assessment of both vineyard's water usage, the DEIR would ensure that neither vineyard would over-utilize the surrounding basins and affect both vineyards' water supply.

C. The DEIR misleads the reader by falsely describing project design features as mitigation measures

A court should not find substantial evidence when a DEIR creates inconsistencies and lacks clarity. (*Vineyard Area* at 431.) Here, the DEIR discusses numerous mitigation measures (3.3-1a to 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, 3.3-5) to exemplify its supposedly adequate water supply. (DEIR 3.7-28 ¶2.) But these are not, in fact, mitigations of their potentially significant water supply impacts because they are only attempting to meet the legal requirements of an adequate water supply and fail to provide certainty of such supply. Thus, the DEIR does not include all feasible mitigation as required under CEQA Guidelines §15091(c).

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The DEIR also lacks clarity in claiming 11 AFY water savings upon the numerous mitigation measures institution because the analysis has already incorporated these savings. (DEIR 3.7-28 ¶2.) Accordingly, the mitigations are actually project design features, and without them, the water supply would be grossly inadequate under CEQA. This undiscussed premitigation Project is a misdirection to make the proposed project design features appear to meet all feasible mitigation requirements. By presenting the information in this way, it makes the project proponents seem to accommodate large mitigations when the project design features in fact are not significantly mitigating their water supply needs. Instead, the project design features alter the Project so that a sustainable groundwater yield is achieved. Yet, even with its design features, the Project's supply is still insufficient under *Vineyard Area* because it cannot replenish itself after a drought due to the Project's water demand. Therefore, the purported water supply's availability is uncertain, and the DEIR has not discussed any alternative supplies to address the uncertainty.

VI. The DEIR does not Adequately Disclose or Mitigate the Project's Water Quality Impacts

Any water quality impacts will affect the environment and Napa County generally, and directly impact the United States retired veterans living in the largest residential Veteran's facility in Yountville. Yountville has superior water rights and receives its drinking water supply from Rector Reservoir, to which this Project's will directly discharge surface flow. (Birkas et al. 2009.) This Project claims it will increase the erosion controls in the area by creating an erosion control mechanism. Still, native plant life will better ensure erosion control than the Project Applicant's insufficient actions putting both biodiversity and the surrounding population at risk of decreased water quality.

The DEIR states that the San Francisco Bay Regional Control Board [hereafter the "SF Board" has established a TMDL for the Napa River. (DEIR 3.7-7 \P 2.) The Napa River pollution includes nutrients, pathogens, sediments, and silts. (DEIR 3.7-6 \P 4.) Additionally, the tidally influenced area of the Napa River contains nutrients and pathogens. (DEIR 3.7-6 \P 4.) The Board has not established nutrient targets but has called for substantial pollutant reductions and density-based targets of zero-discharge of untreated or inadequately treated human waste. (DEIR 3.7-6 \P 5-6.) Sedimentation decreases fish habitat for special-status species such as Chinook salmon, California freshwater shrimp, and Steelhead. (DEIR 3.7-6 \P 1.) The public should not bear the burden of pollutant clean-up or foul odors in their drinking water from the approval of too many agricultural projects for a water basin to handle. (Birkas, *Rector Sanitary Survey*, at 69.) Here, the Applicant has not decreased sedimentation, nutrients, or pathogens but is only mitigating to maintain the current polluted levels.

A. The DEIR's stream buffers are inadequate to protect rector reservoir from further eutrophication, sedimentation, and siltation

Rector Reservoir is currently in a state of pollution from increased pesticides, sedimentation, and siltation. The Rector Creek Sanitary Survey of 2009 found that:

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The sedimentation rate has increased since 2000 (Stagecoach EIR, 2006). The YVH hired divers to film the reservoir bottom to show the condition of sedimentation. These videos show that the drain is covered with silt, however the top of the trash rack over the drain valve was visible. The Division of Safety of Dams wants the drain of the reservoir to be exercised. This has not been done in several years, and there are potential problems associated with exercising this equipment and releasing water and sediment. The drain may or may not open, and may or may not close again. Release of water laden with silt can be detrimental to downstream Rector Creek and is likely to have a foul odor.

(Birkas, Rector Sanitary Survey, at 69.) This study shows that Rector Watershed needs actions to decrease its erosion and pollutants, not simply maintaining the current distressing levels. The report found that the dam had elevated levels of siltation but opening the drain will be detrimental to the downstream Rector Creek and foul up the water for residents and biodiversity. Additionally, the DEIR found that the Rector Reservoir lacks floodplains, leaving no place for sediments or pollutants to settle before reaching the reservoir. (DEIR 3.7-2 ¶3.) This lack of floodplains also means that major storms can bring copious amounts of sediments into the reservoir that do not have erosion control mechanisms. (DEIR 3.7-2 ¶3.) Ninety-eight percent of the Project property comprises soils with a high runoff potential, making this Project site particularly prone to erosion concerns. The Napa County General Plan includes a policy consideration CON-50 which requires that the County preserve the water quality by maintaining adequate stream buffers. (DEIR 3.7-15 ¶1.) While Napa General Plan policy CON-48 requires Projects to maintain or improve the site's pre-development sediment erosion conditions. (DEIR 3.7-20 ¶4.) Furthermore, 50% of sediment loading in the Napa river comes from ranch roads and agriculture, while steep slope agriculture, similar to the Project, can increase erosion and landslides. (DEIR 3.5-5 ¶3.)

To accomplish the goal of protecting Rector Reservoir, the DEIR should consider the best available science and require a minimum 300-foot setback for all perennial and ephemeral streams that are within designated critical habitat, support or have the potential to support special-status and/or sensitive species or provide connectivity and linkages to support multiple species. If the ephemeral streams are not within a designated critical habitat, do not support or have the potential to support special-status or sensitive species, and do not provide essential habitat connectivity, as determined by a qualified biologist, then the County could require a minimum 100-foot buffer.

Science has shown that implementing adequate buffers throughout the catchment or watershed, not just at or around the reservoir, is a more effective strategy to keep pollutants and sedimentation out of reservoirs (Norris 1993; Whipple Jr. 1993). Researchers suggest that to reduce sedimentation and pollution in drinking water supplies, a minimum 300-foot buffer should be established around reservoirs, and larger buffer zones should be established around upstream channels and tributaries closer to pollution sources (such as vineyards) of sediment and other pollutants (Nieswand et al. 1990; Norris 1993; Whipple Jr. 1993). Thus, the DEIR's proposed 50-foot setbacks from ephemeral and blue-line streams will not adequately protect against water quality degradation due to sediment, turbidity, and other types of pollution, such as

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excessive nutrients (nitrogen and phosphorous) and pesticides—issues that Napa County is already facing in Rector Reservoir. (Birkas, *Rector Sanitary Survey*, at 70.) Larger buffer zones would provide more streambank stabilization, water quality protection, groundwater recharge, and flood control both locally and throughout the watershed (Nieswand et al. 1990; Norris 1993; Whipple Jr. 1993; Sabater et al. 2000; Lovell and Sullivan 2006). They would also protect communities from impacts due to climate change by buffering them from storms, minimizing impacts of floods, and providing water storage during drought (Environmental Law Institute 2008). Thus, the County should require a minimum 300-foot buffer around streams feeding into reservoirs with a minimum of 100- to 300-foot setbacks from ephemeral streams, depending on whether the habitat is located within designated critical habitat, supports, or has the potential to support special-status and/or sensitive species, or if it provides important habitat connectivity or linkages.

In the San Francisco Bay Area, stream setbacks range between 30 - 200 feet, depending on the type of land use (*i.e.*, urban versus rural) or the quality or type of existing habitat (Robins 2002). For example, Sonoma County implements some of the more stringent setbacks, with requirements for a 200-foot buffer in the Russian River Riparian Corridor, a 100-foot buffer for flatland riparian stream corridors, and a 50-foot buffer for other riparian stream corridors⁵. Although smaller buffers may be locally adequate to alleviate water quality concerns in the short-term, they are often insufficient for wildlife (Kilgo et al., 1998; Fischer et al.m 2000; Semlitsch & Bodie, 2003). Streams (perennial and intermittent) and reservoirs throughout the County support numerous special-status flora and fauna, including steelhead trout, Chinook salmon, California freshwater shrimp (Syncaris pacifica), and California red-legged frogs. Many species that rely on these aquatic habitats also depend on the adjacent upland habitats (e.g., riparian areas along streams and grassland habitat adjacent to wetlands). Sixty percent of amphibian species, 16% of reptiles, 34% of birds, and 12% of mammals in the Pacific Coast ecoregion (which includes Napa County) depend on riparian-stream systems for survival (Kelsey and West 1998). Many other species, including mountain lions and bobcats, often use riparian areas and natural ridgelines as migration corridors or foraging habitats (Dickson et al., 2005; Hilty & Merenlender, 2004; Jennings & Lewison, 2013; Jennings & Zeller, 2017). Additionally, fish rely on healthy upland areas to influence suitable spawning habitat (Lohse et al. 2008). Agricultural encroachment on these habitats and over-aggressive removal of riparian areas have been identified as a major driver of declines in freshwater and anadromous fish and California freshwater shrimp (e.g., Stillwater Sciences 2002; Lohse et al. 2008; Moyle et al. 2011). Loss of biodiversity due to lack of habitat contributes to ecosystem degradation, which will diminish a multitude of ecosystem services in the long-term. Thus, to preserve the County's valuable biodiversity in these habitats, it is vital to develop and implement effective buffer widths informed by the best available science.

A literature review found that recommended buffers for wildlife often far exceeded 100 meters (~325 feet), well beyond the most extensive buffers implemented in practice (Robins 2002). For example, Kilgo et al. (1998) recommend more than 1,600 feet of riparian buffer to sustain bird diversity. In addition, amphibians, which are considered environmental health

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⁵ County of Sonoma (2008) General Plan 2020. Available at: https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/General-Plan/

indicators, have been found to migrate over 1,000 feet between aquatic and terrestrial habitats through multiple life stages (Semlitsch and Bodie 2003; Trenham and Shaffer 2005; Cushman 2006; Fellers and Kleeman 2007). Specifically, the California red-legged frog, a threatened species that occurs and has designated critical habitat within Napa County, migrates about 600 feet between breeding ponds and non-breeding upland habitat and streams, with some individuals roaming over 4,500 feet from the water (Fellers and Kleeman 2007). Other sensitive species known to occur in Napa County, such as western pond turtles (Actinemys marmorata, a candidate species under the Endangered Species Act) and California newts (*Taricha torosa*), have migrated over 1.300 feet and 10.000 feet respectively from breeding ponds and streams (Trenham 1998; Semlitsch and Bodie 2003). Accommodating the more long-range dispersers is vital for species populations' continued survival and/or recolonization following a local extinction (Semlitsch and Bodie 2003, Cushman 2006). Also, more extensive buffers provide resiliency in the face of climate change-driven alterations to these habitats, which will cause shifts in species ranges and distributions (Cushman et al., 2013; Heller & Zavaleta, 2009; Warren et al., 2011). This potential resilience emphasizes the need for sizeable riparian and upland buffers around streams in Napa County and connectivity corridors between heterogeneous habitats.

Here, the Applicant is attempting to meet the December 2018 Napa County Ordinance §18.108.025, requiring minimum stream buffers based on the site's slope percentage by declaring that 24 feet stream buffers and 26 feet vineyard avenue together creates the claimed necessary 50-foot buffer. The best available science states the more is necessary. Still, even common sense shows that if half of the required buffer is a vineyard avenue, it will not accomplish the same pesticide and erosion control and filtering as a 50-foot buffer in addition to any vineyard avenues. The December 2018 County ordinance requires a minimum 45-foot buffer depending on slope and does not explicitly include or exclude vineyard avenues. The County should not allow the Applicant to skirt the law and endanger water quality through this buffer splitting tactic. This buffer necessity is particularly true because even the DEIR states that the current stream buffers are only "under most conditions, generally adequate to . . . filter chemicals." (DEIR 3.7-21 ¶4.) Instead, Napa County should require 300-foot buffers in addition to any vineyard avenues to improve the polluted Napa and Rector Watersheds instead of the Project's plan of supposedly no net increase.

B. The DEIR provides inadequate stream buffers under Napa ordinances

The Project should be held to the most stringent standards under the December 2018 Napa County Ordinances. Shortly after filing the Project, Napa County amended the stream setback ordinances to expand protections to streams and specifically exclude vineyard avenues from stream buffers. The Project would very likely have known these expanded protections were incoming. In 2018, the County did not allow development within certain distances of streams, depending on the slope percentage. Section (B)(1) requires 1-5% slope requires 45-foot stream buffers, 5-15% slope requires 55-foot stream buffers, and 15-30% requires 65 feet buffers and further setbacks for higher grade slopes. (Napa County Zoning Ordinance tit.18, Ord. No. 1300, §1 (2007).) For ephemeral streams, the Director has discretion regarding whether to include it as a stream or not. (Napa County Zoning Ordinance tit.18, Ord. No. 1300, §1 subsection A (2007).) Here, the average slope is 18%, with a range from 11% to 24%, which means that most streams 01-55 Cont.

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need at least a 65-foot stream buffer, but the DEIR maps make it difficult to ascertain if the areas with higher slope percentages are meeting the increased setback requirements. The County must ensure the Project maintains the 2018 stream buffers minimums; the DEIR does not make that clear.

Furthermore, the stream set back requirements under subsection (B) of Napa Municipal Code §18.108.025 includes "agricultural uses of land as defined by §18.08.040. (Napa County Zoning Ordinance tit.18, Ord. No. 1300, §1 (2007).) Although the current 2019 regulation clearly excludes vineyard avenues from stream buffers, in 2018, vineyard avenues were still subject to Napa County's discretionary approval, not including or excluding vineyard avenues. This vagueness shows that Napa County is entirely within its discretion to require vineyard avenues outside of stream buffer requirements.

There are three setback exceptions; ordinance exceptions 18.108.040(B) applies to this Project where the Planning Director approves an erosion control plan after a public hearing. (Napa County Zoning Ordinance tit.18, Ord. No. 1300, §1 (2007).) At which point, the County **may** approve the erosion control exemption and could allow a vineyard avenue to count as part of the stream buffer zone. (Napa County Zoning Ordinance tit.18, Ord. No. 1438, §7 (2019).) The County is under no obligation to support such a risk to water quality and should not approve this buffer splitting tactic.

Here, the County should require stream buffers separate from the vineyard avenues. Rector Reservoir is a sensitive drinking water watershed, and this ordinance's purpose was to protect watersheds from agricultural pollutants. Thus, the County should not grant an exemption to negate the stream setback regulation's purpose, particularly when a new ordinance which the Project would have been aware of expressly excludes vineyard avenues. One Napa-based study found that 500-foot buffers may be necessary to protect water quality and that linear setbacks are not enough; instead, recommending stream buffers and hydrological monitoring to ensure adequate water quality maintenance during developments, especially in sensitive drinking water areas like Rector Reservoir. (Amber Manfree Consulting, *Napa County Conservation Policy Existing Conditions, and Proposed Policy Impacts*, Growers/Vintners for Responsible Agriculture 2 (2019).)

C. The DEIR does not adequately address rock water crossings impacts

"Factual inconsistencies and lack of clarity in the [D]EIR leave the reader—and the decision-makers—without substantial evidence for concluding that sufficient water is, in fact, likely to be available." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 40 Cal.4th 412, 439 (2007) [hereinafter "*Vineyard Area*"].) Three locations plan to install rock water crossings to allow perennial and ephemeral stream crossings. (DEIR 2-11.) Unless carefully designed and maintained, rocked water crossings can cause continual disturbance of the stream bed and require care to ensure no flooding of the road caused by the rock water crossing. (Barbara Daniels et al. *Managing Forests for Water Quality: Stream Crossings*, UTAH STATE UNIVERSITY 5 (2004.) The DEIR states that this will not cause significant impacts but says that it will mitigate as required either 1:1 or 1:2 per the Army Corp of Engineers permitting process. (DEIR 3.3-59 ¶3, *see also* 3.7-22 ¶4.) This mitigation sounds

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like it would be outside the project site because the DIER also states that an alternative would require clear-span bridges on all three locations instead of rock water crossings. (DEIR 3.7-22 ¶4.)

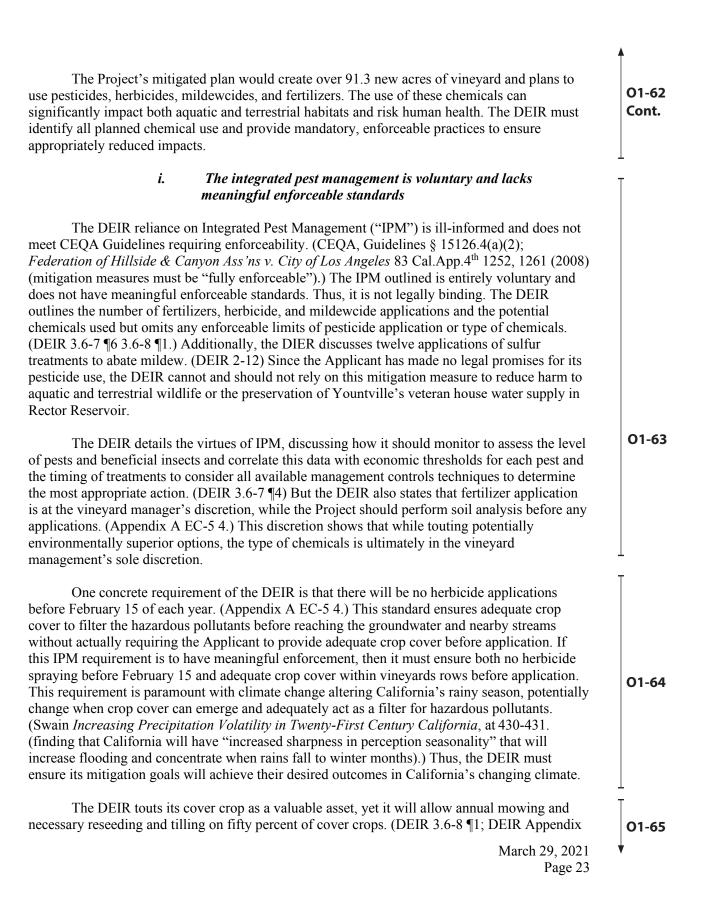
Rocked water crossing creates stream disturbances and potentially increases siltation. Potential sediment trapping behind the crossing should require the Project to mitigate further to ensure that Rector Reservoir and Napa Rivers decrease the percentage of siltation and sediment in both the Rector and Napa watersheds. The DEIR could remedy this problem with clear-span bridges instead of rocked water crossings. Alternatively, the Project could eliminate vineyards Z17-20 and reroute access to vineyard W8 via Y16 to remove rocked water crossings from the Project. These options would additionally eliminate the concern regarding access to stormwater maintenance during high water storms.

D. The DEIR does not provide enforceable standards for stormwater system maintenance to prevent stormwater overloads

In Preserve Wild Santee, the court held that "an unexplained discrepancy precludes the existence of substantial evidence..." (Preserve Wild Santee v. City of Santee, 210 Cal.App.4th 260 (2012), citing Vineyard Area at 439 (2012).) Rock water crossings are inadequate to ensure erosion control measures because they may not provide access during high water events. But storm maintenance and monitoring require monitoring and potential immediate repair during winter high water months. (DEIR Appendix A §20 SP-20-21) This unexplained discrepancy in road needs requires clarification to provide substantial evidence of the stormwater maintenance plan. California is facing more intense weather due to climate change, and any maintenance needs to be accessible during high water, which these rock water crossings may not provide. A report from Climate Change Nature discusses that California's wet season will likely increase in intensity and decrease in duration, which will create an increased need to complete stormwater maintenance to avoid overloading and sedimentation and siltation releases from the Project. (Daniel L. Swain et al. Increasing Precipitation Volatility in Twenty-First-Century California, 8 NATURE CLIMATE CHANGE 430 (May 2018).) Simultaneously, the rocked water crossings will become more precarious because of the increased size of streams during or following more intense storms.

Additionally, there are no discussed enforcement mechanisms if the Project Applicant overloads the stormwater system and potentially increases sedimentation, siltation, and pollutant runoff in the watershed through fault or inadequate maintenance. The County should first require clear-span bridges overall water crossings to ensure adequate access to stormwater maintenance areas. Second, the County must ensure the Applicant complies with necessary maintenance to ensure that erosion mechanisms are in complete working order and do not overload stormwater systems. Alternatively, the County could deny the Project or approve a substantially smaller Project that would avoid the need for rocked crossings and create less erosion potential.

E. The DEIR does not adequately disclose or mitigate the project's pesticide impacts



A EC-6 10.) The United States Department of Agriculture's Natural Resources Conservation Service states in its Riparian Herbaceous Cover Conservation Practice Standard that a maximum mowing of one-third of a riparian herbaceous cover annually will allow pollinators to recolonize. (United States Department of Agricultural, *Riparian Herbaceous Cover Code 390*, NATURAL RESOURCES CONSERVATION SERVICE (Sept 2010).)

ii. The DEIR does not adequately discuss or mitigate pesticide storage risks

The DEIR states that pesticide storage is in a shipping container and could lead to spills but finds this harm is not significant despite potential large spills two-hundred feet from a nearby ephemeral stream that feeds into Rector Reservoir. (DEIR 3.6-8 \mathbb{Q}^2 .) This pesticide storage setback does not accomplish the stated goals of the Project to protect water quality by protecting streams and drainages to the maximum extent feasible through avoidance, incorporation of appropriate setbacks, and implementation of various erosion control features; nor would this minimize impacts on rare, endangered, and candidate plant and animal species to the extent feasible, while providing for avoidance, preservation, and replacement under accepted protocols, including but not limited to Napa County. (DEIR 2-7 \mathbb{Q}^1 .)

The proposed DEIR requirement of 200-foot setbacks for pesticide storage is grossly insufficient and will not slow the degradation of these critical ecosystems and the services they provide. The Project should require a minimum 300-foot setback from all perennial and ephemeral streams within a designated critical habitat, support or have the potential to support special-status and/or sensitive species, or provide connectivity linkages to support multiple species. Pesticide storage should require even further setbacks than 300-feet because of the potential extensive application of hazardous pollutants from spills, earthquakes, or other human-made or natural disasters.

Ultimately, the Rector Reservoir is currently polluted, and this Project only plans to have no net increase in erosion or pollutants when improvements are necessary. The proposed stream buffers are inadequate to protect water resources and require increases to 300 feet buffers, not including the vineyard avenues. The rock water crossing could increase sediment, which the DEIR does not discuss, nor does the DEIR discuss maintenance during storm events via the rocked water crossings. Lastly, the IPM is voluntary, provides no limits on pesticides, and needs to include enforceable limits on all potential chemicals and increase the distance of pesticide storage from streams. The biodiversity and citizenry of Napa deserve improved water quality, and this Project will only hinder this effort and needs either substantial alterations with enforceable standards or denied entirely.

VII. Conclusion

Given the possibility that the Center will be required to pursue appropriate legal remedies in order to ensure enforcement of CEQA, we would like to remind the County of its duty to maintain and preserve all documents and communications that may constitute part of the "administrative record." As you may know, the administrative record encompasses any and all documents and communications which relate to any and all actions taken by the County with O1-65 Cont.

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respect to the Project, and includes "pretty much everything that ever came near a proposed [project] or [] the agency's compliance with CEQA" (*County of Orange v. Superior Court* (2003) 113 Cal.App.4th 1, 8.) The administrative record further contains all correspondence, emails, and text messages sent to or received by the County's representatives or employees, which relate to the Project, including any correspondence, emails, and text messages sent between the County's representatives or employees and the project proponent's representatives or employees. Maintenance and preservation of the administrative record requires that, *inter alia*, the County (1) suspend all data destruction policies; and (2) preserve all relevant hardware unless an exact replica of each file is made.

Thank you for the opportunity to submit comments on the DEIR for the Stagecoach North ECP. The Center is deeply concerned by the significant environmental and social impacts of the proposed Project. The EIR fails to meet CEQA's requirements for thorough, transparent and evidence-based environmental review, and is thus legally deficient. We ask the County to address and correct the deficiencies we have identified above and recirculate an updated Draft EIR for public review and comment.

Please ensure that the Center is on the notice list for all future updates and notices associated with the Project and its environmental review, and do not hesitate to contact the Center with any questions at the number or email listed below.

Sincerely,

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Ross Middlemiss Staff Attorney Center for Biological Diversity 1212 Broadway, Suite #800 Oakland, CA 94612 Tel: (510) 844-7100 Rmiddlemiss@biologicaldiversity.org

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Exhibit 1

(if applicable)

Letter O1Center for Biological Diversity, Ross Middlemiss, Staff AttorneyResponseMarch 29, 2021

- **O1-1** Napa County thanks the Center for Biological Diversity for the Draft EIR comments provided. The Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015). See Responses to Comments O1-3 through O1-68 for specific responses regarding potentially significant impacts on biological resources, greenhouse gas emissions, water supply, and water quality in response to the comments provided.
- **O1-2** The comment describes the Center for Biological Diversity and its work in Napa County protecting imperiled plants and wildlife, open space, air and water quality, and overall quality of life.
- **O1-3** The comment states that the Draft EIR fails to comply with CEQA and the State CEQA Guidelines. As stated in Response to Comment O1-1, the Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015). See Responses to Comments O1-4 through O1-68 for additional detail.
- **O1-4** The comment provides information about the definition of a "project" under CEQA and related CEQA court cases. The comment is noted.
- **O1-5** The Draft EIR evaluates the impacts of implementing the Stagecoach North Vineyard Conversion Erosion Control Plan Application Project (#P18-00446-ECPA) (proposed project), as described in Draft EIR Chapter 2, *Project Description*. As stated in Draft EIR Chapter 2, *Project Description*, page 2-7, Erosion Control Plan Application (ECPA) #P18-00446-ECPA was filed with Napa County on December 20, 2018, for the proposed vegetation removal and earthmoving activities on slopes steeper than 5 percent in connection with the development of approximately 91.3 net acres of new vineyard within 116.2 gross acres (referred to in the EIR as the "project area" or "development area") on the project site. Construction and operation of the proposed vineyard and other features of the ECPA in the development area are evaluated in the Draft EIR.

Should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the

Draft EIR would apply to the proposed project. The mitigation measures are summarized in Draft EIR Table ES-2, and Table 3.3-5A shows the mitigated proposed project acreage with implementation of the biological resources mitigation measures identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage). Updated mitigation measures are summarized in Final EIR Chapter 4, *Mitigation Monitoring and Reporting Program*, to reflect revisions made in response to the Draft EIR comments. Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, *Alternatives Analysis*. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include the implementation of all mitigation measures identified in the Draft EIR for the proposed project.

- **O1-6** The CEQA alternatives analysis presented in Draft EIR Chapter 5 includes consideration and discussion of alternatives to the proposed project, consistent with State CEQA Guidelines Section 15126.6. As stated in Response to Comment O1-5, both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include the implementation of all mitigation measures identified in the Draft EIR for the proposed project, in addition to other avoidance areas identified for each alternative to further reduce impacts on biological communities.
- **O1-7** The Draft EIR evaluates the impacts of implementing the proposed project, as described in Draft EIR Chapter 2, *Project Description*. The Draft EIR does not evaluate multiple versions of the project as stated in the comment. As stated in Responses to Comments O1-5 and O1-6, mitigation is identified in the Draft EIR to reduce or avoid environmental impacts of the proposed project, and the evaluation of CEQA alternatives compares the alternatives to the proposed project, consistent with State CEQA Guidelines Section 15126.6, not to the mitigated proposed project. See Draft EIR Section 1.3.6, *Approval Process*, and Response to Comment O1-5 regarding the County's approval process for ECPA projects.
- **O1-8** The Draft EIR's analysis of the proposed project's greenhouse gas (GHG) emissions is not inadequate, as stated in the comment. Further, the Draft EIR does fully analyze and attempt to mitigate all potentially significant direct and indirect effects of the project, contrary to the statement in the comment. The Draft EIR evaluates emissions from both the construction and operational phases of the proposed project, including the change in the project site's carbon storage and carbon sequestration potential with the change from existing wildland to a vineyard. The methodology and assumptions used for the analysis are consistent with those recommended by the Bay Area Air Quality Management District (BAAQMD). The Draft EIR analysis recognizes that there would be an increase in GHG emissions with development of the proposed project; however, this increase would be considered less than significant when compared to BAAQMD's thresholds. See also Responses to Comments O1-9 through O1-13 and I3-5.

- **O1-9** The Draft EIR's conclusion that GHG impacts would be less than significant is supported by substantial evidence, as explained in Impact 3.2-5 and Draft EIR Appendix C. The carbon sequestration analysis uses factors consistent with the Napa County Revised Draft Climate Action Plan. Although the Climate Action Plan has not been adopted, the data sources used in its analysis are peer-reviewed and published and are considered credible and scientifically valid. However, the County acknowledges that given the emerging nature of this subject, other data sources are also available, as pointed out by the commenter. The Draft EIR analysis has been revised to use carbon storage factors for shrubland (also from the County's Revised Draft Climate Action Plan) instead of grassland (used in the Draft EIR) for the "chamise alliance" land cover type. The carbon storage factor attributed to vineyards in the Draft EIR is based on published data by Williams et al. (2011) and is not unsupported as stated by the commenter. See Responses to Comments O1-10 through O1-13 for additional information.
- **O1-10** The comment references alternate carbon storage factors, which are noted. The Draft EIR's analysis does estimate loss of both aboveground and belowground carbon storage from shrubland habitat. See Response to Comment O1-12.
- **O1-11** Draft EIR Impact 3.2-5 recognizes that removal of existing vegetation on the site would result in the one-time removal of carbon storage in plant material above and below ground and an ongoing reduction of the site's carbon sequestration potential. However, introducing a vineyard to the site would also replace some of these losses. The net change in carbon storage and carbon sequestration potential from the replacement of existing vegetation with vineyard is presented quantitatively in Draft EIR Impact 3.2-5.
- **O1-12** The comment questions the factors used in the carbon sequestration analysis presented in the Draft EIR (Impact 3.2-5), particularly for "chamise alliance," a land cover type found on the project site. The factors used in the Draft EIR analysis are consistent with those in the County's Revised Draft Climate Action Plan, and although the Revised Draft Climate Action Plan has not been adopted, the data sources used in its analysis are peer-reviewed and published and are considered credible and scientifically valid. See also Response to Comment O1-13 regarding updates to the analysis, and Response to Comment I3-18.
- **O1-13** Because the science of carbon sequestration is a rapidly emerging field and the data available have evolved with time, the County acknowledges the additional data sources cited by the commenter. Based on an updated literature review conducted in response to comments received on the Draft EIR, the County has found it adequate to update the carbon storage factor for the chamise alliance to reflect shrubland habitat rather than grassland. The analysis in the Draft EIR previously categorized chamise alliance as grassland and used a carbon storage factor from the Revised Draft Climate Action Plan of 2.6 metric tons (MT) of carbon (C) per acre. However, because vegetation onsite is a mix of grassland and shrubland, the analysis has been updated to use a carbon storage

factor of 12.8 MT C per year, also from the Revised Draft Climate Action Plan. This updated carbon storage factor is more reflective of the higher carbon storage in shrublands. The sources for both factors are cited in the Revised Draft Climate Action Plan and Draft EIR Appendix C. See also Response to Comment I3-8.

A revised analysis is provided below, using an updated carbon storage factor from the Revised Draft Climate Action Plan, of 12.8 MT C per acre for chamise alliance. This factor is higher than the 8.6 MT C per acre cited for chamise chaparral by Bohlman et al. (2018) in Comment O1-10. In addition, the revised analysis conservatively assumes that all brush cleared from the site would be burned, as opposed to half burned and half chipped (see also Response to Comment O3-3). The tables below show revised estimates for the original proposed project as well as the mitigated proposed project, which includes implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 as detailed in Section 3.3, *Biological Resources*, and noted in Impact 3.2-5. The memorandum on the carbon stock and sequestration in Draft EIR Appendix C was also updated. See also Final EIR Chapter 2, *Revisions to the Draft EIR*.

Vegetation/Land Use Type	<u>Original Proposed Project</u> Total MT CO2e	Mitigated Proposed Project <u>Total MT CO2e</u>		
Cleared Area (acres)	<u>116.2</u>	<u>90.5</u>		
Proposed Vineyard Area (acres)	<u>91.3</u>	<u>69.0</u>		
Carbon Loss—Existing Land Use Removal				
Carbon Storage <u>1.2</u>	<u>12,786</u> 4,140	<u>8,614</u>		
Carbon Sequestration (annual)	<u>434</u> 557	<u>286</u>		
30-Year Lifetime Emissions	<u>25,810</u>	<u>17,183</u>		
Carbon Gains—New Land Use Types ^{3a}				
Carbon Storage	-11,800	<u>-8,918</u>		
Carbon Sequestration (annual)	-5	<u>-4</u>		
30-Year Lifetime Emissions	-11,961	<u>-9,039</u>		
Total Project Lifetime Emissions	<u>13,849</u>	<u>8,144</u>		
Total Project Annual Emissions	<u>462</u> 297	<u>271</u>		

TABLE 3.2-8

ESTIMATED CHANGE IN GREENHOUSE GAS EMISSIONS FROM CARBON STOCKS AND SEQUESTRATION

NOTES: MT CO_2e = metric tons of carbon dioxide equivalents

¹ <u>Assumes all vegetation removed onsite would be burned.</u>

² Uses a total carbon storage factor of 12.8 MT C per acre for chamise chaparral updated from the 2.6 MT C per acre used in the DEIR analysis.

³_Emissions are reported as negative because they represent a greenhouse gas emissions sink.

SOURCE: Data compiled by Environmental Science Associates in 2020 and October 2021 (see Appendix C)

Source	<u>Original Project</u> CO₂e (metric tons per year)	<u>Mitigated Project</u> <u>CO₂e (metric tons per year)</u>
Mobile Sources	23	<u>21</u>
Off-Road Farming Equipment	271 <u>268</u>	<u>268</u>
Diesel Generator	28	<u>28</u>
Net Change in Carbon Storage and Sequestration	297 <u>462</u>	<u>271</u>
Amortized Construction Emissions	30	<u>10</u>
Total	649 <u>809</u>	<u>598</u>
BAAQMD Operational GHG Threshold	1,100	<u>1,100</u>
Exceeds Threshold?	No	No

 TABLE 3.2-9

 ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS FROM PROJECT OPERATION

NOTES: BAAQMD = Bay Area Air Quality Management District; CO_2e = carbon dioxide equivalents; GHG = greenhouse gas SOURCE: Data compiled by Environmental Science Associates in 2020 and 2021

As shown in updated Draft EIR Tables 3.2-8 and 3.2-9, the proposed project's operational emissions combined with the amortized annual construction emissions would remain less than BAAQMD's operational GHG threshold of 1,100 MT carbon dioxide equivalent for land use projects, as stated in Impact 3.2-5. Therefore, even with the updated carbon storage factor and accounting for all cleared vegetation to be burned, the significance determination of Draft EIR Impact 3.2-5 would remain unchanged. This impact would be less than significant.

- **O1-14** Cleared brush at the site would be burned in accordance with the standards of the California Department of Forestry and Fire Protection, and only on approved burn days with appropriate permits and/or authorization from BAAQMD, as stated in Draft EIR Chapter 2, *Project Description*. As stated in Response to Comment O1-13, to provide a conservative analysis, the GHG analysis has been updated to assume that all removed vegetation would be burned. See also Final EIR Chapter 2, *Revisions to the Draft EIR*.
- **O1-15** Information in the comment about CEQA's requirements for the alternatives analysis is noted. The Draft EIR provides an adequate evaluation of CEQA alternatives compared to the proposed project, consistent with State CEQA Guidelines Section 15126.6. See also Responses to Comments O1-16 through O1-25.
- **O1-16** Project objectives were not formulated by the County to reject "environmentally superior alternatives," as stated in the comment. As stated on page 5-1 of Draft EIR Chapter 5, Alternatives Analysis, CEQA requires an analysis of alternatives selected because they minimize or eliminate significant impacts identified for the proposed project. Sometimes these alternatives can result in new or more severe impacts even if they reduce others. The Applicant's project objectives provided to the County included development of approximately 91.3 net acres of new vineyard within a 116-acre development area, as proposed in the ECPA. The range of net vineyard acreage in the Draft EIR project

objectives (*Executive Summary*, pages ES-1 and ES-2, and Chapter 2, *Project Description*, pages 2-6 and 2-7) includes the range of acreage that would result with implementation of the biological resources mitigation measures identified in the Draft EIR (Table 3.3-5a), which are the only mitigation measures in the Draft EIR that would reduce the vineyard acreage of the proposed project. See also Comment and Response to Comment O5-3.

- **O1-17** The information on CEQA and NEPA project objectives is noted.
- **O1-18** As stated in Response to Comment O1-16, the Applicant's project objectives provided to the County included development of approximately 91.3 net acres of new vineyard within a 116-acre development area, as proposed in the ECPA. The range of net vineyard acreage in the Draft EIR project objectives includes the range of acreage that would result with implementation of the biological resources mitigation measures identified in the Draft EIR (Table 3.3-5a), which are the only mitigation measures in the Draft EIR that would reduce the vineyard acreage of the proposed project.

As stated in Draft EIR Section 5.1, *Introduction*, on page 5-1, State CEQA Guidelines Section 15126.6 requires that an EIR evaluate a range of reasonable alternatives to the project which would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects. Vineyard development is a key basic objective of the proposed project.

- **O1-19** The County is considering all information in the EIR, including the alternatives, before making a determination to approve the proposed project (either as mitigated or as described in one of the alternatives).
- **O1-20** The County did not refuse to analyze a range of reduced project size alternatives as stated in the comment. All of the alternatives considered in the Draft EIR reduced the footprint compared to the proposed project. Draft EIR Chapter 5, *Alternatives Analysis*, considers the No Project Alternative (with no new vineyard acreage proposed) and the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative (which each reduced the development acreage by about 32 acres compared to the proposed project); these alternatives would reduce the severity of some environmental impacts compared to the proposed project, as indicated in Draft EIR Table 5-5. The Draft EIR provides an adequate evaluation of CEQA alternatives compared to the proposed project, consistent with State CEQA Guidelines Section 15126.6 and the County is considering all information in the EIR, including the alternatives, before making a determination to approve the proposed project (either as mitigated or as described in one of the alternatives). See also Responses to Comments O1-15, O1-16, O1-19, and O1-21.
- **O1-21** Draft EIR Section 5.4, *Environmentally Superior Alternative*, identifies the Increased Preservation Area Alternative as the environmentally superior alternative, which is identified consistent with State CEQA Guidelines Section 15126.6(e)(2). The Draft EIR

does not "reject" both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative, as stated in the comment. See Response to Comment O1-5 regarding the County's approval process for ECPA projects and Response to Comment O1-16 regarding the project objectives relative to the reasonable range of alternatives considered in the Draft EIR. Draft EIR Chapter 5, *Alternatives*, includes a comparison of each alternatives' environmental effects to the effects of the proposed project and a discussion of the ability of the alternatives to achieve the proposed project objectives. As required under State CEQA Guidelines Section 15126.6(e)(2), an identified environmentally superior alternative was identified in Section 5.4. The County is considering all information in the EIR, including the alternatives, before making a determination to approve the proposed project (either as mitigated or as described in one of the alternatives).

O1-22 As stated in Response to Comment O1-18, the range of net vineyard acreage in the Draft EIR project objectives includes the acreage proposed in the application and the range of acreage that would result with implementation of the biological resources mitigation measures identified in the Draft EIR (Table 3.3-5a), which are the only mitigation measures in the Draft EIR that would reduce the vineyard acreage of the proposed project.

The Draft EIR identifies all applicable and feasible mitigation measures to reduce the magnitude of or avoid the identified environmental impacts, and these mitigation measures were carried over to the alternatives analyzed in Draft EIR Chapter 5, *Alternatives.* The mitigation measures are summarized in Draft EIR Table ES-2 and the updated mitigation measures are summarized in Final EIR Chapter 4, *Mitigation Monitoring and Reporting Program*, to reflect revisions made in response to the Draft EIR comments. See also Responses to Comments O1-5 and O1-21.

- **O1-23** The comment that the Increased Preservation Area Alternative should be the focus of the Draft EIR is noted. See Responses to Comments O1-5, O1-18, and O1-21.
- **O1-24** As determined by the Universal Soil Loss Equation calculations discussed in Draft EIR Section 3.5, *Geology and Soils*, Impact 3.5-1, with the proposed project and the erosion and runoff control measures proposed in the Erosion Control Plan, sediment yield would decrease by approximately 160.01 tons (29.78 percent) relative to existing conditions (see also Response to Comment O1-52). As stated on Draft EIR page 3.5-20, potential soil loss and sedimentation caused by the proposed project would be controlled primarily by using a no-till cover crop with vegetative cover densities ranging from 75 to 85 percent. Vineyard avenues would also include vegetative cover at densities consistent with the Erosion Control Plan. A cover crop can trap eroded soils onsite, thereby reducing soil loss and the potential for sedimentation. Hydrologic conditions after development of the proposed project are anticipated to be rated as good, based on the positive effects of soil ripping on certain soil types, and assuming that the project achieves

and maintains the proposed vegetative cover specifications. See also Response to Comment I4-4.

The statement that the reduction in annual soil loss would likely be less with the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative than under the proposed project because the alternatives would include less acreage than the proposed project was based on the findings in Draft EIR Table 3.5-4 on page 3.5-22. The table indicates pre-project and post-project soil loss by block. With the removal of areas in and near proposed vineyard Blocks V2, V3, V4, V6, W8, X12, Z17, and Z20 with the Increased Preservation Alternative, it was anticipated that post-project soil loss would not result in the same net decreases as the proposed project. Similarly, with the removal of areas in and near proposed vineyard Blocks V1, V2, V3, V4, V6, W8, X11, X12, Y4, Y15, Z17, Z18, and Z20 with the Increased Watercourse Setbacks Alternative, it was anticipated that post-project soil loss would not result in the same net decreases as the proposed setbacks Alternative, it was anticipated that post-project soil loss would not result in the same net decreases as the proposed setbacks Alternative, it was anticipated that post-project soil loss would not result in the same net decreases as the proposed project. Similarly, with the Increased Project. The proposed erosion control measures listed on Draft EIR pages 2-11 and 2-12 and in the Erosion Control Plan that would achieve the reduced post-project soil loss (and which would not be included with the removed blocks) include:

- The proposed drainage systems (diversion ditches, drop inlets, and drainage pipelines, rock level spreaders, and rock energy dissipaters) that would route and disperse water and reduce concentrated flow.
- The proposed detention structures that would collect flow and release it at a controlled rate.
- The features of the vegetative erosion control measures that would reduce erosion (seed, mulch, fertilizer, and irrigation; timing and methods of planting, mulching, and maintenance of plant material and slopes until a specified percentage of plant coverage is uniformly established).

Furthermore, the owner/permittee will need to provide the County with updated soil loss and runoff modeling for any and all development areas modified by mitigation and project alternatives prior to construction to demonstrate compliance with the County's no net increase policies as a result of project changes.

O1-25 Alternatives, in the context of CEQA, present ways that a proposed project could achieve most of the basic project objectives while also avoiding or substantially lessening any of the significant effects of the project (State CEQA Guidelines Section 15126.6). Although the Applicant owns the adjacent developed Stagecoach vineyard, the Applicant did not identify other undeveloped land owned by the Applicant in the project area where an alternative project site could be proposed. Therefore, an alternative project site is not a potentially feasible option and was not evaluated in Draft EIR Chapter 5, *Alternatives*. The comment is noted and no further response is necessary.

- **O1-26** The biological resources section of the Draft EIR (Section 3.3) discloses, analyzes, and mitigates all impacts on known or potentially occurring special-status species, as well as species listed under the federal and California Endangered Species Acts. Portions of Napa County do provide habitat for California red-legged frog (*Rana draytonii*), Ridgway's rail (*Rallus longirostris obsoletus*), and steelhead trout (*Oncorhynchus mykiss*), Central California Coast Distinct Population Segment, as noted in the comment; however, no habitat for these species occurs within the project site.
- **O1-27** With implementation of Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h, impacts on hollyleaf ceanothus, two-carpellate western flax, and green monardella, respectively, would be mitigated through replanting at a 1.2:1 ratio (mitigated:affected) (see Response to Comment O1-28) and monitoring of the replanted areas for a minimum of 5 years to achieve an 80 percent success criterion. Monitoring would continue until a minimum 80 percent survival rate is achieved. After the 5-year monitoring period, a report would be prepared and submitted to the County evaluating the success of the mitigation program and recommending further action if necessary.

As outlined in revised Mitigation Measure 3.3-1j (see Final EIR Chapter 2, *Revisions to the Draft EIR*), the project would be implemented in two phases with a maximum of 75 gross acres in Phase 1, and with Phase 1 being designed to avoid removal of any two-carpellate western flax or green monardella. The phasing is intended to demonstrate that the special-status plants removed and replaced as result of the project (i.e., holly-leaved ceanothus, two-carpellate western flax, and green monardella) can be successfully replaced and reestablished consistent with Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h prior to commencement of Phase 2 by requiring that all replacement plantings for the entirety of the project be installed in Phase 1 and successfully established before commencement of Phase 2.

Biological studies have been conducted on several parcels in the Rector Reservoir watershed for previous Agricultural Erosion Control Plan (ECPA) projects, including two in the eastern portion of the watershed (Mansfield/Baker #04086-ECPA and Costa #03020-ECPA) and two adjacent and south of the proposed project (Cordes #03522-ECPA and Stagecoach #P06-0042-ECPA). As indicated in these project's CEQA documentation and determinations, extensive chaparral habitat with holly-leaved ceanothus has been observed on these sites and in the region, similar to that observed and documented on the project site.

As disclosed on Draft EIR pages 3.3-37 and 3.3-38, some plant species have life history characteristics (rhizomatous perennials, generalist habitats, robust production of propagules) that favor their success in replacement plantings, holly-leaved ceanothus has been successfully propagated, planted, and re-established in Napa County.

While the failure rate for replacement of plant species may generally be high, there is documented success for holly-leaved ceanothus transplanting and reestablishment. Specifically, the Final EIR adopted for the Stagecoach Vineyards ECPA Project (#P06-0042-ECPA, State Clearinghouse #2006082143, Certified October 2, 2008) located immediately to the south of this project, required 15 acres of holly-leaved ceanothus replanting. The Holly-leaved Ceanothus Replanting Plan (AES 2008) recommended planting holly-leaved ceanothus at medium densities of approximately 90 plants per acre, for a total of 1,350 plants. Replanting began in 2008 and was monitored for 5 years. Each year survival was assessed and additional plantings completed in order to achieve the required total surviving plants. Between 2008 and 2012, 3,383 holly-leaved ceanothus were planted, and in the final monitoring year (December 2013), 1,743 plants survived and were observed to be in very good shape. Their continued survival, in excess of the mitigation requirement of 90 plants per acre over 15 acres, is expected. This data was also included in the Bloodlines project CEQA documentation and determination (#P16-00323-ECPA, State Clearinghouse #2016122063, Certified December 4, 2019).

Mortality of replacement holly-leaved ceanothus in the Stagecoach Vineyards #P06-0042-ECPA was primarily due to (1) accidental mowing, and (2) excessive drip irrigation. Adaptive management was employed in order to address these issues, as is expected in any restoration plan. Lessons from this restoration would be applied to the Mitigation and Monitoring Plan required by Mitigation Measures 3.3-1b, and to project phasing required pursuant to Mitigation Measure 3.3-1j.

Given the documented success of holly-leaved ceanothus replacement within the immediate vicinity of the project site, project phases that do not include the removal and replacement of two-carpellate western flax or green monardella may commence in tandem with the commencement vineyard construction in that development phase. For any phase that includes removal and replacement of two-carpellate western flax or green monardella, development of vineyard may commence once replacement plants have been installed and replacement success criteria has been demonstrated and met as described in the respective mitigation measures (3.3-1f and 3.3-1h).

The documented replacement success also shows that a minimum 5 year monitoring period is necessary to ensure adequate and effective mitigation of plants removed as part of the project, and before a subsequent phase can be commenced. Further, to maximize success within 5 years, replacement plants for this project shall be provided at a 1.2:1 ratio to ensure that 100 percent of the plants removed would be replaced within the monitoring period.

With respect to the mitigatory monitoring period, Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h already provide for a minimum 5 year monitoring period before a subsequent phase can be commenced to ensure adequate and successful plant replacement, consistent with CDFW recommendations and past practices.

Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h states that mitigatory transplanting and habitat enhancement areas will be located in suitable on-site habitat as determined by a qualified biologist. Additionally, pursuant to Mitigation Measure 3.3-1a these areas and associated habitat will be preserved in perpetuity under a deed restriction, open space easement with an organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection. Please refer to Response to Comment S2-6.

These mitigation changes are not expected to affect the potential level of impact, and may result in increased reductions in impact significance to sensitive plant species beyond what was disclosed and analyzed in the in the Draft EIR.

A 20-foot avoidance buffer around retained individuals would provide adequate distance to prevent potential direct and indirect impacts; therefore, impacts would not occur.

See also Responses to Comments O1-33 and O5-12.

O1-28 The replanting mitigation text in Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h has been revised to a 1.2:1 replacement ratio with an 80 percent survival rate for impacts on all special-status plants to ensure that 100 percent of the plants removed would be replaced within the monitoring period, which was the intent of the Draft EIR mitigation measures (see Final EIR Chapter 2, *Revisions to the Draft EIR*). A higher replacement ratio is not necessary because the plants are highly adapted to site conditions. In addition, none of the plants are state-listed or federally listed, so identification of increased ratios for rarer species is irrelevant. Monitoring would be conducted by a qualified botanist. See also Responses to Comments O1-27 and S2-7.

As stated in Response to Comment O1-27, if the success criterion has not been met at the conclusion of the 5-year monitoring period, monitoring would continue until the success criterion has been achieved. Therefore, the monitoring requirement provides sufficient assurance that the Applicant must achieve that goal before completing the monitoring. Further, Mitigation Measure 3.3-1a requires monitoring, enforcing, and defending of the mitigation easement in perpetuity (see Final EIR Chapters 2 and 4).

- **O1-29** The CEQA impact threshold for special-status plants in the Draft EIR analysis is that an impact would be significant if the proposed project would result in the loss of special-status plants. The mitigation measures for the avoided special-status plants noted in the comment specifically state that any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. A 20-foot avoidance buffer around retained individuals would provide adequate distance to prevent potential direct and indirect impacts; therefore, impacts would not occur.
- **O1-30** No impacts on avoided plants are anticipated with the 20-foot avoidance buffer. Mitigation Measure 3.3-4 (c) includes measures that would be implemented should any special-status plants or populations be inadvertently removed as part of project development,

including replacement at a 2:1 ratio with a minimum 80 percent survival rate (note that this was included in Mitigation Measure 3.3-1a in the Draft EIR but was moved to Mitigation Measure 3.3-4 (c) in Final EIR Chapter 2. Mitigation Measure 3.3-1a text has also been revised in response to Comment S2-6 from the California Department of Fish and Wildlife to include a Long-Term Management Plan for the Preservation Area.

- **O1-31** Mitigation Measures 3.3-2a and 3.3-2b for California bay forest include a combination of restoration and preservation. As stated in Responses to Comments O3-4 and O3-6, the proposed project would affect 31.63 acres (63 percent) of California bay forest on the project site. With implementation of the mitigation measures described in the Draft EIR, the impact area would be reduced to 17.25 acres, and 32.99 acres of California bay forest would be preserved within the 79.3-acre Preservation Area. However, Detention Basin #2 with an approximate 0.38-acre impact on California bay forest has been added back into the proposed development area in Response to Comment O3-4, increasing the California bay forest impact area to 17.63 acres and reducing the area preserved to 32.61 acres. Therefore, to achieve preservation of 33.5 acres of California bay forest habitat, 0.89 acre would need to be enhanced (32.61+0.89=33.5), not the 10 acres stated in Mitigation Measure 3.3-2a. Mitigation Measure 3.3-2a has been revised to state that 0.89 acre of California bay forest would be enhanced within the Preservation Area (see Final EIR Chapters 2 and 4). This would result in 2:1 preservation of California bay forest acreage, consistent with Napa County General Plan Policy CON-17; therefore, the mitigation measures adequately mitigate the loss of California bay forest.
- **O1-32** The commenter recommends a 5:1 mitigation ratio and a 7-year monitoring period for the California bay forest. However, the 2:1 acre replacement ratio obtained through implementation of Mitigation Measures 3.3-2a and 3.3-2b is consistent with Napa County General Plan Policy CON-17, and the 5-year monitoring period is sufficient mitigation to demonstrate that success has been achieved. No change to the Draft EIR text has been made in response to the comment.
- **O1-33** See Responses to Comments O1-27 and O5-12. The commenter's suggestions for a vegetation restoration plan are noted. Related to California bay forest, Mitigation Measure 3.3-2a includes the requirement for a qualified professional knowledgeable and experienced with the habitats and trees at the project site to prepare a detailed Mitigation and Monitoring Plan for County review (see Final EIR Chapters 2 and 4).

For special-status plants, the mitigation in Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h— requiring replacement at a 1.2:1 ratio (see Response to Comment O1-28), development of plant Mitigation and Monitoring Plans containing the requirements outlined in the measures, and establishment of a mitigation easement through Mitigation Measure 3.3-1a—adequately mitigate the loss of special-status plants and ensure that 100 percent of the plants removed would be replaced within the monitoring period (see Response to Comment O1-28) and that the mitigation easement would be monitored,

enforced, and defended in perpetuity. The existing mitigation measures for replacement of special-status species call for a minimum of 5 years of monitoring activities for the populations. The specified duration of a minimum 5 years is consistent with CDFW recommendations and past practices. Ultimately the timing of the monitoring activities will be dictated by the plant Mitigation and Monitoring Plan, which will be structured around tracking performance targets such as minimum 80 percent survival rate and control of invasive species. After 5 years, the replacements plants should be well established, and any issues constraining their successful established is likely to start emerging the first few months and/or years after planting. It is important to note that the measure specifies a "minimum of 5 years of monitoring" – not that there would be no more than 5 years of monitoring. Ultimately, if the plantings do not initially achieve the required performance metrics, the monitoring will need to continue in order to verify that they do. As such, no change regarding the minimum duration of monitoring activities specified in the mitigation measures is necessary.

- **O1-34** As stated in Impact 3.3-5, the proposed project must retain a minimum of 60 percent of the tree canopy and a minimum of 40 percent of the brush/shrub cover that existed on the parcel in 1993 because the project site is located in the Rector Reservoir Sensitive Domestic Water Supply Drainage, pursuant to Napa County Code Section 18.108.027(B) (Sensitive Domestic Water Supply Drainages—Vegetation Clearing). The project as proposed would remove approximately 0.2 acre of tree canopy cover and approximately 114.9 acres of brush/scrub canopy as existed in 1993 and shown on Figure 2 in Draft EIR Appendix A, which would result in the retention of approximately 99 percent tree canopy cover and approximately 50 percent of brush/shrub cover as it existed in 1993. This is within the minimum tree canopy and brush/shrub retention requirements for projects within a Sensitive Domestic Water Supply Drainage under Napa County Code Section 18.108.027(B). The approximate number of trees within the development area was provided in the Draft EIR for context; however, the County does not require mitigation for the removal of individual trees, but consistency with Napa County Code Section 18.108.027(B) related to vegetation removal within a sensitive domestic water supply drainage.
- **O1-35** Impacts related to hazardous materials, including fuels, pesticides, and fertilizers and measures to avoid or minimize those impacts, are discussed in detail in Draft EIR Section 3.6, *Hazards and Hazardous Materials*. The proposed project would implement integrated pest management techniques, comply with the laws and regulations governing transportation and management of hazardous materials to reduce potential hazards, and implement the best management practices in the Hazardous Materials Conditions of Approval (Draft EIR pages 3.6-9 and 3.6-10). These measures would ensure that impacts on non-target species would be avoided.

Further, as discussed in Draft EIR Chapter 2, *Project Description*, and Impacts 3.3-2 and 3.6-1, the proposed project design incorporates setbacks from all drainages on the

project site, with the exception of crossings required for access (discussed under Impact 3.3-3). During storms, these setbacks would filter flows and reduce the potential for petroleum products, pesticides, herbicides, mildewcides, or fertilizers to reach drainages onsite. The two ephemeral streams on the project site that meet the County's definition of a stream have no-touch setbacks ranging from 55 to 105 feet based on slope, in accordance with Section 18.108.025 of the Napa County Code. In addition, the proposed project would avoid other waters that are not defined by the County as streams and would maintain 50-foot buffers from these areas, consisting of 26 feet of undisturbed native vegetation and 24 feet of vegetated vineyard avenue. The avenues would be subject to the same vegetative cover crop requirements as the adjacent vineyard block under the Erosion Control Plan.

- **O1-36** The information in the comment about pesticide use in California is noted.
- **O1-37** See Response to Comment O1-35.
- **O1-38** The comment is noted. Based on baseline site conditions onsite, the vegetation was so dense that minimal wildlife movement was likely. As discussed under the *Wildlife Movement Corridors* subheading in Draft EIR Section 3.3.1, *Environmental Setting*, page 3.3-21, the project site has not been identified on the CalWild linkage map as part of a major regional movement corridor, and the site is not located along a riparian system or other natural landscape feature that can be considered an important local wildlife movement corridor. Mid-sized to large mammals are likely to pass through the project site during their local movements, although the site lacks any defined wildlife corridors. Regardless, Mitigation Measure 3.3-4 requires that vineyard blocks be fenced individually or in specific groups to allow for wildlife passage/corridors. The fencing shall be designed to allow 6-inch gaps at the base to allow small mammals to move through the fence.

The proposed project is designed to avoid impacts on the ephemeral drainages (see Response to Comment O1-35). These drainages are narrow and lack water for the majority of the year and are surrounded by dense upland vegetation along the banks. No riparian vegetation occurs along the ephemeral drainages. Ephemeral drainages are avoided by buffers in accordance with County requirements.

O1-39 As stated in the *Stream Setbacks* subheading in Draft EIR Section 3.3.1 on page 3.3-18, none of the watercourses identified in County Resolution No. 94-19 occur on or adjacent to the project site (Napa County Board of Supervisors 2019). Two drainages within the project site meet the County's definition of a stream for purposes of the setback requirements in the Conservation Regulations. The project footprint includes the proper County-required setbacks for both of these ephemeral drainages. All other ephemeral streams on the project site do not meet the County's definition of streams and thus do not require a setback; however, they would be avoided with minimum 50-foot buffers, consisting of 26 feet of undisturbed native vegetation and 24 feet of vegetated vineyard

avenue, and the avenues would be subject to the same vegetative cover crop requirements as the adjacent vineyard block under the Erosion Control Plan. Therefore, no County-required setback distance is applicable for the remaining ephemeral drainages onsite.

- **O1-40** The information on wildlife buffers is noted. The habitat types on the project site that were documented under conditions existing at the time the Notice of Preparation was published (i.e., October 14, 2019) lack established wildlife corridors because of the thick, often impenetrable vegetation, and no riparian corridors occur around the ephemeral drainages. Therefore, installing wildlife corridors within the project site as part of the proposed project would increase the opportunities for movement of smaller wildlife through the project site.
- **O1-41** As noted in Draft EIR Appendix J, the Stagecoach South property was previously under different ownership, and the current owner and vineyard manager have altered vineyard irrigation practices to help increase water use efficiency. The changes implemented have led to reduced groundwater use at the vineyard when compared to use under the prior ownership (Draft EIR Appendix J; RCS 2018). According to the current owner of Stagecoach South, water use on the property for the existing vineyard has remained unchanged from 2018 through 2021, with an average of 0.50 AF/year used per acre (Final EIR Appendix B; RCS 2022).

As stated in the comment and on page 3.7-25 of the Draft EIR, the project proposes to use approximately 54.8 acre-feet (AF) per year (AF/year) of groundwater to irrigate the 91.3 net acres of vineyard (approximately 0.60 AF/year per acre) during the first 4 years while the vines are established, and approximately 45.7 AF/year of groundwater to irrigate the 91.3 net acres of vineyard (approximately 0.50 AF/year per acre) after the fourth year once the vines are established, which is below the estimated average annual recharge volume of 69.3 AF/year (see also Response to Comment O4-10 about average annual groundwater recharge).

The estimated average annual vineyard irrigation demand was provided by the Stagecoach vineyard manager for the proposed acreage on the Stagecoach North project site, as stated in Draft EIR Appendix J (RCS 2018). Draft EIR Section 3.7, *Hydrology and Water Quality*, and Appendix J assess water supply and associated demand for proposed project. The water demand for the proposed project is consistent with water use for the existing established vineyard on the Stagecoach South property.

Further, should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. These measures would reduce the vineyard acres that would be developed and operated and the associated vineyard water demand. As stated on page 3.7-28 of the Draft EIR, with implementation

of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project's acreage by approximately 22.3 net acres, anticipated long-term overall groundwater demand would decrease by approximately 11.15 AF/year, resulting in an anticipated water demand of 43.7 AF/year during the first four years during vineyard establishment (from 54.8 AF/year) and 34.6 AF/year after the fourth year once the vineyards are established (from 45.7 AF/year).

Regarding (or 'Specific to') water demand for the mitigation plantings, it is conservatively estimated to be approximately 2.14 AF/year for three years of irrigation needed to establish the plantings based on the following assumptions: two 1-gallon per hour point-source drip irrigation emitters are used per mitigation plant with each plant requiring 6 square feet of irrigation; the irrigation schedule is adjusted each month of the year based upon reference evapotranspiration rates for Yountville; plants would be weaned off temporary irrigation after their third year of irrigation (**Final EIR Appendix C**; ESA 2022). Therefore, with the decrease in planted acreage as a result of mitigation that would reduce water demand by ±11.15 AF/year, adequate water is anticipated to be available to irrigate mitigation plantings.

The mitigation measures are summarized in Draft EIR Table ES-2, and Table 3.3-5a shows the mitigated proposed project acreage with implementation of the biological resources mitigation measures identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage as identified above). Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, *Alternatives Analysis*. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include implementation of all the mitigation measures identified in the Draft EIR for the proposed project and would also reduce the acreage being developed and operated and the associated water demand. Adoption of either alternative would reduce vineyard by at least 5 gross acres, which is anticipated to further reduce water demand by approximately 2 AF/year (4 planted acres times 0.5 AF/acre). With implementation of mitigation measures, and adoption of either alternative, water demand is anticipated to be 41.7 AF/year during the first four years and 32.6 AF/year after the fourth year.

O1-42 The Draft EIR does not pick favorable data to underestimate the proposed project's water demand, as stated in the comment. As stated in Response to Comment O1-41, the Stagecoach South property was previously under different ownership, and the current owners and vineyard managers have altered vineyard irrigation practices to help increase water use efficiency. The changes implemented have led to reduced groundwater use at the vineyard when compared to use under the prior ownership (Draft EIR Appendix J; RCS 2018). The estimated average annual vineyard irrigation demand was provided by the current Stagecoach vineyard manager for the proposed acreage on the Stagecoach North project site. See also Response to Comment O1-44 for additional information on the analysis.

- **O1-43** The information provided in the comment about what a legally adequate water supply analysis must include is noted.
- O1-44 The drought analysis in Draft Appendix J (RCS 2018) is conservative (Final EIR Appendix B; RCS 2022). As described in that text, the theoretical drought envisioned for the analysis is a theoretical drought lasting 6 years, during which only approximately 50 percent of average rainfall would occur. The theoretical drought duration and rainfall total were chosen to represent a conservative drought based on details from historic rainfall records and prior drought periods. The theoretical rainfall volume of 50 percent of average is similar to the rainfall total during the 2-year drought (Water Year [WY] 1975–76 to WY 1976–77), and a 6-year drought duration is similar to WY 1986–87 to WY 1991–92, when total rainfall was 75 percent of average; see Table 5 of Appendix J (RCS 2018). Hence, the theoretical drought conditions (magnitude and duration) are more conservative than the conditions recorded in the actual rainfall record (Final EIR Appendix B; RCS 2021).

The recharge calculations in Draft EIR Appendix J are based on average rainfall for the Stagecoach North property (RCS 2018). This means that years of above-average rainfall and below-average rainfall (drought periods) that have occurred during the period of record are inherently included in the calculations presented in Appendix J. Over the long term, the recharge calculated for the property is higher than the demand. Hence, more recharge is projected to occur than is required to be extracted for the project in the future. To help address uncertainty in future rainfall total and projections, conservative estimates of rainfall recharge percentages were employed in Appendix J. As stated in Response to Comment O1-45, during a potential 6-year drought period, a groundwater "recharge deficit" of 111 AF would represent about 11 percent of the volume of groundwater calculated as currently being stored beneath the property. Temporarily removing an average of 18.5 AF of groundwater from storage for 6 consecutive drought years (approximately 111 AF of "deficit" over the entire 6-year period) may cause water levels to decrease somewhat beneath the project site. However, removing such a relatively small percentage of groundwater from storage over the 6-year time period is not expected to significantly affect groundwater levels beneath the project site.

As stated in Response to Comment O1-41, with implementation of mitigation measures, and adoption of either alternative, water demand is anticipated to be 41.7 AF/year during vineyard establishment and 32.6 AF/year after establishment.

As stated on Draft EIR page 3.7-27, project approval, if granted, also would be subject to the Groundwater Management, Wells Condition of Approval that would track and manage whether water usage at the vineyard is affecting or would potentially affect groundwater supplies or nearby wells. Text has been added to this Condition of Approval that states that the groundwater use is capped consistent with the approved vineyard

and replanting acreage (see Final EIR Chapter 2, *Revisions to the Draft EIR*). Therefore, alternative water supply options are not required.

Comment O1-44 relies on an underlying assumption (not directly stated) that a period of average rainfall equal to the duration of a preceding drought must occur for groundwater in storage to remain in balance; this is not true. This logic ignores the fact that years of above-average rainfall occur in addition to below-average rainfall and average rainfall, and that the magnitude of the above-average and below-average rainfall years must be considered in the calculation. As an example, rainfall totals shown on Figures 2A though 5A in the Appendix K monitoring memorandum show that in 2016, rainfall at the property was roughly 60 percent higher than the annual average in 2016 and 40 percent higher than the average in 2018. Above-average rainfall years contribute more recharge to the region than average rainfall years, not just what the average recharge to the region would provide. For example, following a drought period of 4 years, there could be 1 year of average rainfall, followed by an above-average year, followed by a drought year, followed by an average year. The rainfall during that period could still reach the average rainfall total, even though multiple successive years of average rainfall were not realized (Final EIR Appendix B; RCS 2021).

Comment O1-44 references a graph from the U.S. Geological Survey's Central Valley model to illustrate rainfall patterns in California. First, the subject Stagecoach North property is located far from the Central Valley of California, and the data presented on the graph may not be applicable to the subject property. Average annual rainfall totals in California's Central Valley are on the order of 5–20 inches per year (AMNH 2021), whereas average annual rainfall at the subject property is on the order of 39 inches per year (and long-term average annual rainfall at the subject property is 35 inches, as derived from the Napa County isohyetal map; Appendix J; RCS 2018; Final EIR Appendix B; RCS 2022). Importantly, the U.S. Geological Survey graph does not illustrate the rainfall total, or the magnitude of the wet and dry years shown thereon, but only whether or not the years shown were above-average (wet) or below-average (dry) rainfall years. Note that research by Swain et al. (2018) referenced in the comment states that "...future multi-year droughts in California may exhibit an increased propensity to be interrupted by very wet interludes." Hence, the magnitude of future "very wet" periods of rainfall may be sufficient to offset extended drought periods that could occur in California in the future, and is an important consideration when interpreting rainfall and recharge (Final EIR Appendix B; RCS 2021).

It is also important to remember that calculated average rainfall is relative to the period of observation. Evaluating rainfall trends by analyzing the cumulative departure from the mean for a rainfall data set addresses the variability of rainfall, and enables review of overall rainfall trends. Because the creation of the cumulative departure curve considers the entire period of record, and also considers the magnitude of non-average rainfall events, wet periods and dry periods can be illustrated. Cumulative departure rainfall curves are shown in the Appendix K monitoring memorandum along with water level data form the Stagecoach South mitigation monitoring wells (RCS 2020) (Final EIR Appendix B; RCS 2021).

Draft EIR Appendix J (RCS 2018) compared the 35 inches per year long-term average annual rainfall assumption to the precipitation data set published by PRISM Climate Group at Oregon State University that includes the climatological period between 1981 and 2010. Using that data set, RCS determined that the average rainfall for the subject property for the 1981 to 2010 date range was approximately 38.7 inches. An updated PRISM data set was recently released for the period between 1991 and 2020. Using that data set, an annual average of 38.7 inches per year was calculated for the Stagecoach North property, the same as in the previous calculation. Therefore, the assumption of 35 inches per year of average annual rainfall on which the analyses in Appendix J was based is still an appropriate assumption (Final EIR Appendix B; RCS 2022).

The Stagecoach North property is not located within a "groundwater basin" as defined by the State of California. Groundwater beneath the Stagecoach North property is stored in a fractured rock aquifer system (i.e., rocks of the Sonoma Volcanics). The comment suggests that changes in the frequency of and intensity of rainfall will cause a decrease in groundwater recharge at the property, citing Swain et al. (2018). Swain et al. (2018) do not discuss groundwater recharge, deep percolation of rainfall, or the effects of changing rainfall patterns on groundwater recharge. Swain et al. (2018) do discuss projections related to potential changing weather patterns in California as a result of climate change. They project the frequency of extremely dry years to increase in Northern California, asserting that "the likelihood of individual dry seasons may already be increased relative to the preindustrial period" (Swain et al. 2018). Hence, the analyses in Draft EIR Appendix J (RCS 2018), because they rely on the long-term annual average, may already include some effects of climate change projected to occur in Northern California. Further, the analyses in the referenced article found "statistically robust increases in the simulated frequency of extremely heavy precipitation events" and the results of the work "suggest that future multi-year droughts in California may exhibit an increased propensity to be interrupted by very wet interludes" (Swain et al. 2018). Guidance for Climate Change Data Use During Groundwater Sustainability Plan Development, published by California Department of Water Resources (DWR 2018). states that "the northern and central regions of California are expected to experience an increase in precipitation" for both the 2030 and 2070 projected climate conditions. Average annual precipitation in the San Francisco Hydrologic Region is projected to increase by 4.6 percent in 2030 and by 10.2 percent in 2070 (Figures A-13 and A-14 in DWR 2018) (Final EIR Appendix B; RCS 2021).

Research by others has shown that the relationship of groundwater recharge to rainfall intensity is complex and dependent on the specific conditions in the area of study, including geology and site-specific aquifer characteristics. In the article "Effects of

Rainfall Intensity on Groundwater Recharge Based on Simulated Rainfall Experiments and a Groundwater Flow Model," the authors describe a lab-created recharge experiment with controlled "rainfall" and a "river sand" soil matrix, followed by groundwater modeling using the laboratory results, to help investigate the relationship between rainfall intensity and groundwater recharge (Wang et al. 2015). While the study did identify a negative linear relationship between the rainfall recharge coefficient and rainfall intensity, "the measurements and modeling were executed under very specific conditions and did not consider the changes of complex underlying surface and aquifer characteristics" (Wang et al. 2015). It should be noted that the Stagecoach North property is underlain by a fractured rock volcanic aquifer system, not an alluvial aquifer as modeled by Wang et al. (2015). Further, over a range of intensities from low to high, the groundwater recharge rate actually initially increased with increasing rainfall intensity before decreasing with increasingly higher intensities (Wang et al. 2015) (Final EIR Appendix B; RCS 2021).

In Chapter 5 of the report *Climate Change and Groundwater: Planning and Adaptations for a Changing and Uncertain Future* (Maliva 2021), it is noted that "groundwater recharge rates in some situations may be controlled to a greater degree by the seasonality of precipitation, and the intensity and duration of individual rainfall events," and that "recharge rates also depend on soil and surficial rock properties." The text describes the challenges of using a "top-down approach" of climate modeling in which large-scale models are downscaled to represent smaller areas, and therefore include "cascading uncertainties." The reference lists a summary of select modeling studies conducted throughout the world in areas of varying climates and hydrogeologic conditions. The results of the summary show that of the models reviewed, changing rainfall intensity may either increase groundwater recharge in some cases or decrease groundwater recharge in other cases, depending on the site-specific conditions of the areas studied (Maliva 2021) (Final EIR Appendix B; RCS 2021).

Deep percolation of rainfall is site specific because of highly variable geologic factors, as noted above. In light of these data, the assertions that greater intensity rainfall (of an unstated magnitude) could reduce groundwater recharge are speculative. To address uncertainty caused by climate change, Draft EIR Appendix J applied a conservative estimate of the rainfall recharge percentage for the Stagecoach North analysis, including a site-specific analysis to reduce the estimated recharge percentage from 17 percent to 14 percent of the average annual rainfall (RCS 2018). This conservative estimate of the rainfall recharge percentage was used to address uncertainty in future weather scenarios, and the possible effects of those weather changes (as applicable) on deep percolation rates. Further, rainfall estimates used in the Draft EIR Appendix J analyses were based on long-term, site-specific annual averages that included several periods of drought. As evidenced by the conservative approach to the analysis employed in Appendix J (RCS 2018), coupled with the projections of increased rainfall in the region in the future (Swain et al. 2018) (DWR 2018), the analyses in the Stagecoach North Draft

EIR are representative and appropriate for the proposed project, and inclusive of future possible climate change conditions (Final EIR Appendix B; RCS 2021).

O1-45 As stated in the comment and on Draft EIR page 3.7-27, project approval, if granted, would be subject to the Groundwater Management, Wells Condition of Approval that would track and manage whether water usage at the vineyard was affecting or would have the potential to affect groundwater supplies or nearby wells.

The County's condition of approval is separate and in addition to the CEQA determination in Impact 3.7-2 that construction and operation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge, which was based on the Water Availability Analysis (Appendix J; RCS 2018).

Based on the analysis in the Water Availability Analysis (Draft EIR Appendix J; RCS) 2018), page 3.7-26 of the Draft EIR states that the project site's average annual groundwater recharge would be approximately 84.1 AF/year. (See Draft EIR Appendix J for specific details and calculations.) As stated in Response to Comment O1-46, the more conservative 69.3 AF/year of average annual groundwater recharge discussed in Appendix J has been included in the EIR. This is based on the long-term average annual rainfall of 35 inches per year over the project site and a deep percolation rate of 14 percent (see Response to Comment O1-44 and Final EIR Appendix B; RCS 2022). As proposed, the project is estimated to have an annual onsite future groundwater demand of 54.8 AF/year during the first 4 years and 45.7 AF/year after the fourth year, which is below the estimated average annual recharge volume of 69.3 AF/year. As stated in Response to Comment O1-42, anticipated long-term water demand would decrease to 43.7 AF/year during the first four years and 34.6 AF/year after the fourth year with implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, and adoption of either alternative would further reduce water demand to 41.7 AF/year during the first four years and 32.6 AF/year after the fourth year.

The groundwater monitoring data (Draft EIR Appendix K; RCS 2020) also show that groundwater levels may not necessarily correspond to single years of increased or decreased rainfall totals, but that a cumulative departure from mean water-year rainfall (increase or decrease) is likely to result in corresponding changes to the groundwater levels. As discussed in Response to Comment O1-44, the groundwater monitoring data in Draft EIR Appendix K show that groundwater levels are loosely correlated to the water-year rainfall totals. Single-year increases or decreases in water-year rainfall totals may not necessarily result in a raising or lowering of water levels for that same year (Figures 2A through 5A in Draft EIR Appendix K). Instead, changes to groundwater levels in the project area appear to be heavily influenced by changes in rainfall over time. As conservatively estimated, 1,052 AF of groundwater is currently in storage beneath the project site. This was calculated using water levels measured in April 2018,

but the calculation is still valid (Final EIR Appendix B; RCS 2022). Groundwater in storage calculations are dependent upon the depth of the static water level in a well at any given time (along with other factors that do not change over time). As discussed in Draft EIR Appendix J, the estimate of 1,052 AF of groundwater in storage is based on a static water level in Well SN-2 of 251 feet below ground surface on April 26, 2018. As reported by the property owner, the more recent static water level in Well SN-2 was 248 feet below ground surface in December 2021, shallower than the previous measurement. Because the static water levels are very similar, the groundwater in storage calculation is still valid. A groundwater "recharge deficit" of 111 AF during a potential 6-year drought period would represent about 11 percent of the volume of groundwater calculated as currently being stored beneath the property. Temporarily removing an average of 18.5 AF of groundwater from storage for 6 consecutive drought years (approximately 111 AF of "deficit" over the entire 6-year period) may cause water levels to decrease somewhat beneath the project site. However, removing such a relatively small percentage of groundwater from storage over the 6-year time period is not expected to significantly affect groundwater levels beneath the project site. Additionally, as stated in Response to Comments O1-41 and O1-44, with implementation of mitigation measures and adoption of either alternative, water demand is anticipated to be approximately 32.6 AF/year after establishment.

Furthermore, the County has no record of problems with or complaints about diminished groundwater supplies in the general vicinity of the project site. Therefore, the proposed project is anticipated to result in less-than-significant impacts on groundwater supplies, groundwater recharge, local groundwater aquifer levels, and well interference or drawdown effects on nearby wells.

With respect to violations and penalties, the provisions of Napa County Code Section 18.108.140(C) (below) would apply to the project if approved and would be initiated and implemented by the County as warranted.

18.108.140(C) Penalties. It is unlawful and a public nuisance for any person to violate any of the provisions of this chapter for any purpose or to cause any other person to do so. Such a violation shall be enforceable as a misdemeanor pursuant to Napa County Code Sections 1.20.150 and 1.20.160. Such a violation may also be abated as a public nuisance by judicial action or by administrative enforcement in accordance with the procedures set forth in Chapter 1.20, commencing with Section 1.20.010, including those pertaining to treble damages for multiple judgments. In addition, administrative penalties may be imposed in the manner specified in Chapter 1.28 (Administrative Penalty) of the Napa County Code. In addition, the director may issue a stop work order, report the violator to the appropriate licensing agencies (such as the State Contractor's Licensing Board), report the violator to applicable responsible and trustee agencies, require that the violator apply for and obtain all required permits, refer the matter to the district attorney's office for civil or criminal prosecution and any such other remedies the director deems appropriate.

O1-46 There is no discrepancy regarding estimated rainfall recharge percentages in Draft EIR Appendix J, *Water Availability Analysis* (RCS 2018). Draft EIR page 3.7-26 shows the recharge volume as 84.1 AF/year. This value was derived using the 17 percent recharge estimate discussed in Appendix J on page 14. In the paragraphs following the 84.1 AF/year estimate, a value of 69.3 AF/year is presented as a "slightly more site specific estimate" of recharge (derived using the adjusted 14 percent recharge estimate). This 69.3 AF/year estimate is also repeated in the conclusions of Appendix J, and has been included in the revisions to the Draft EIR text instead of the 84.1 AF/year value in Response to Comment O4-10.

As explained in Appendix J (RCS 2018), the 17 percent recharge estimate was derived from the referenced "Updated Napa County Hydrogeologic Conceptual Model" (LSCE and MBK 2013), and is an estimate of the percentage of rainfall that deep-percolates within the watershed in which the Stagecoach North property is located. To present a more conservative, more site-specific estimate of recharge, Richard C. Slade and Associates presented a methodology in Draft EIR Appendix J in which the watershed-wide rainfall recharge percentage was adjusted based on the watershed's geologic characteristics. Using the assumption that the alluvium exposed on the floor of the Napa Valley within the watershed has a greater recharge percentage than the Sonoma Volcanics rocks within the watershed, the estimated to be 14 percent. Table 3 in Appendix J (RCS 2018) illustrates this calculation. Evaluating recharge at the Stagecoach North property using the 14 percent rainfall recharge factor presents a more site-specific and conservative analysis (Final EIR Appendix B; RCS 2021).

The rainfall estimates used in Appendix J were based on long-term, site-specific annual averages that included several periods of drought. As evidenced by the conservative analysis approach employed in Appendix J (discussed in Response to Comment O1-44), coupled with the projections of increased rainfall in the region in the future (Swain et al. 2018) (DWR 2018), the analyses in the Stagecoach North Draft EIR are representative and appropriate for the project, and inclusive of future possible climate change conditions.

- **O1-47** The proposed water supply from the Stagecoach North wells is not part of the Stagecoach South approved operating plan. To date, the wells in place on the Stagecoach North site have been operated occasionally to sustain function, monitor water quality, and maintain equipment. In that instance only has water been applied to the Stagecoach South property, to prevent waste of the resource. Stagecoach South operates on wells within the boundaries of its approved operating plan and does not need supplemental water from any other sources.
- **O1-48** The commenter is not correct in stating that Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 are project design features. As described in Draft EIR Section 3.3, *Biological Resources*, these are mitigation measures that would reduce or

avoid impacts on biological resources from construction and operation of proposed project. See also Responses to Comments O1-44 and O1-49 regarding water supply for the proposed project.

O1-49 Mitigation measures identified in the Draft EIR are not design features. As stated in Response to Comment O1-5, the Draft EIR evaluates the impacts of implementing the proposed project as described in Draft EIR Chapter 2, *Project Description*, which includes the development of approximately 91.3 net acres of new vineyard within 116.2 gross acres. The Water Availability Analysis in Draft EIR Appendix J evaluates water demand associated with full development of the proposed project. Should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. See Response to Comment O1-5 regarding the County's approval process for ECPA projects.

Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project's acreage by approximately 25.37 gross acres (22.3 net acres), are not pre-mitigation that was already factored into the Water Availability Analysis as stated in the comment. The hydrology and water quality section simply notes that implementing these mitigation measures would result in decreased groundwater demand because of the reduced acreage.

As stated in Response to Comment O1-41 and on page 3.7-25 of the Draft EIR, the project proposes to use approximately 54.8 AF/year of groundwater to irrigate the 91.3 net acres of vineyard during the first four years while the vines are established, and approximately 45.7 AF/year of groundwater to irrigate the 91.3 net acres of vineyard after the fourth year, which is below the estimated average annual recharge volume of 69.3 AF/year (see also Response to Comment O4-10 about average annual groundwater recharge). See also Responses to Comments O1-44 through O1-48 for more information on the Water Availability Analysis.

O1-50 As stated in Impact 3.7-1, construction and operation of the proposed project would have a less-than-significant impact on sediment loading, would not impair water quality entering waterways or groundwater, and would not result in water temperature changes. As a result, the project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

The proposed project conforms to the San Francisco Bay Regional Water Quality Control Board's waste discharge requirements for vineyards 5 acres or larger located in the Napa River watershed by achieving the performance standards for soil erosion in the farm area. The proposed project and Erosion Control Plan include a road plan describing operational road use and use restrictions, maintenance practices, and improvements (Draft EIR Appendix A). The Erosion Control Plan also incorporates rocked water crossings into the proposed project, which would minimize sedimentation during construction from the transport of construction equipment across stream crossings. Also, if the project is approved, it would be subject to the Water Quality Condition of Approval stated on Draft EIR page 3.7-22, which would further reduce the potential for construction-related sedimentation from the transport of construction equipment across stream crossings.

As stated in Draft EIR Section 2.5.1, *Vineyard Development*, the proposed project would limit all construction earth-disturbing activities to April 1 through September 15 of each year (the non-winter months), and all winterization measures would be in place by September 15. The proposed project also would establish and maintain setbacks from onsite drainage features; adhere to the integrated pest management plan; use cover crops; and comply with the laws and regulations governing the transportation and management of hazardous materials to reduce potential hazards, as discussed in Draft EIR Section 3.6, *Hazards and Hazardous Materials*, Impact 3.6-1. Through these actions, the project would minimize the potential for pesticides to enter receiving waters on the project site and would adequately protect groundwater quality by reducing the likelihood that these constituents would enter the groundwater supply.

Further, as determined by the Universal Soil Loss Equation calculations discussed in Draft EIR Section 3.5, *Geology and Soils*, Impact 3.5-1, sediment yield from the proposed vineyard and sediment accumulation in receiving waters with the proposed project would decrease by approximately 160.01 tons (29.78 percent) relative to existing conditions. Potential sedimentation impacts that could increase water temperature, such as alteration of stream geometry and an increase in fine sediment, would not occur.

See also Comment Letter S1 from the Department of Veterans Affairs and Response to Comment S1-1.

- **O1-51** As described in Response to Comment O1-50, construction and operation of the proposed project would have a less-than-significant impact on sediment loading, would not impair water quality entering waterways or groundwater, and would not result in water temperature changes. As a result, the project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality. The proposed project would reduce its potential impact to a less-than-significant level through the implementation of mitigation measures and the erosion control components outlined in the Draft EIR and Appendix A.
- **O1-52** The tributaries in the development area that meet the County's definition of a stream (Napa County Code Section 18.108.030) have required setbacks of 55–150 feet depending on slope, as outlined in Napa County Code Section 18.108.025 and discussed in Draft EIR Impact 3.7-1. All waters of the United States not requiring a County stream setback, and all wetlands, would be avoided and afforded a 50-foot buffer

consisting of a 26-foot undisturbed area and a 24-foot vegetated vineyard avenue. The U.S. Natural Resources Conservation Service (NRCS 2000) and the University of California, Division of Agricultural and Natural Resources (UC DANR 2006) recommend 50-foot-wide vegetated buffers for protection of streams and wetlands. As discussed in Impact 3.6-1, under most conditions, this buffer width is generally adequate to provide enough vegetation to entrap sediments and soils, and to filter chemicals adequately by facilitating degradation within buffer soils and vegetation. These buffer areas serve as filter strips and have the potential to trap as much as 75–100 percent of sediment, capture nutrients and herbicides, and remove more than 60 percent of certain pathogens from runoff (Grismer et al. 2006). Several studies support this evidence, particularly regarding the effectiveness of a filter strip with a width of less than 50 feet:

- Colquhoun et al. (2008) found that filter strips were the most effective at removing sediment within the first 8–12 feet.
- Schultz and Cruse (1993) identified that filter strips could remove 70–80 percent of sediment within the initial 15 feet, which grew to more than 85 percent of sediment removed within the initial 30 feet.
- Gharabaghi et al. (2006) found that filter strips trapped more than 95 percent of the particles larger than 40 micrometers in diameter within about the first 16 feet of the filter strip.

Incorporating the erosion and runoff control measures proposed in the Erosion Control Plan would result in an overall decrease in the volume and rate of runoff from project site watersheds during post-project conditions (discussed in Impact 3.7-3). Further, post-project soil loss from the development area would be reduced by 29.78 percent, and only one block transect (Y16C) showed an increase in sedimentation (Impact 3.5-1 and Table 3.5-4). The calculated increase in soil loss at block transect Y16C (0.09 ton per year) would be more than offset by the calculated soil loss decrease at block transect Y16D (11.33 tons per year), upstream of block transect Y16C. All other individual proposed vineyard blocks would result in a decrease in sedimentation with the erosion and runoff control measures proposed in the Erosion Control Plan, as shown in the Universal Soil Loss Equation calculations discussed in Impact 3.5-1 and Table 3.5-4. Therefore, no significant hydrologic or water quality effects on Rector Reservoir would occur, as discussed in Impacts 3.7-3.

- **O1-53** The comment is noted. See Response to Comment O1-52. The proposed stream setbacks and erosion and runoff control measures were calculated to reduce the volume and rate of runoff from project site watersheds compared to pre-project conditions.
- **O1-54** The information provided in the comment is noted.
- **O1-55** The information provided in the comment is noted.

- **O1-56** As stated on Draft EIR page 2-1, the original project application submittal (December 20, 2018) contained the requisite application materials that were required by the County's Agricultural Erosion Control Plan Application Checklist at that time. As a result, the application was determined to be a "substantially conforming and qualified permit application" under the recently enacted Water Quality and Tree Protection Ordinance (Ordinance #1438), which became effective May 9, 2019. Therefore, continued processing and review of the application is not subject to the County Conservation Regulations (Napa County Code, Chapter 18.108) as amended by the Water Quality and Tree Protection Ordinance. This application is subject to the County Conservation Regulations that were in effect before May 2019. See Response to Comment O1-52 regarding buffer widths.
- **O1-57** The comment is noted. See Response to Comment O1-56.
- **O1-58** The comment is noted. See Response to Comment O1-56.
- **O1-59** As stated in the Water Quality Condition of Approval on Draft EIR page 3.7-22, the project owner/permittee would be required to construct the rocked water crossings first, before conducting other vegetation removal, earth-disturbing activities, or construction activities that require transporting construction equipment across streams. Before constructing and installing the stream crossings associated with #P18-00446-ECPA, and before developing the vineyard blocks reliant on those crossings, the owner/permittee would obtain and demonstrate to the County all required authorizations and/or permits from agencies with jurisdiction over waters of the United States or the state.

The condition of approval also gives the option to revise the plan to include clear-span crossings, with footings located outside of identified setbacks, over the drainages.

The rocked water crossings would minimize sedimentation during construction from the transport of construction equipment across stream crossings.

- **O1-60** As stated on Draft EIR page 2-12, permanent erosion control measures would be maintained regularly. These measures would be monitored throughout the rainy season, and repairs and maintenance would be performed immediately. Further, as noted in the Road Plan included with the Erosion Control Plan (Appendix F in Draft EIR Appendix A), the Forest and Ranch Roads Handbook (Weaver et al. 2014) recommends using rocked water crossings for "ephemeral and intermittent streams when the majority of the traffic will be crossing during low flow or dry conditions." Using rocked water crossings instead of low-water crossings would ensure the continued stability of the drainages and minimize sedimentation caused by vineyard traffic (PPI Engineering 2019).
- **O1-61** The comment is noted. Because the subject property is located within a Sensitive Domestic Water Supply Drainage (Rector Reservoir), the project, if approved, would be subject to the security provisions of Napa County Code Section 18.108.140(A) to ensure

the proper installation and ongoing maintenance of the required erosion and runoff control measures, implemented through the condition identified below.

Security (Sensitive Domestic Water Supply Drainage): The Owner/Permittee shall submit within ten (10) days of the effective date of this approval or prior to the commencement of earthmoving activities (whichever comes first) the following securities required pursuant to Napa County Code Section (NCC) 18.108.140(A) for the purpose of ensuring the proper installation and ongoing maintenance of the required erosion and runoff control measures in the manner specified in erosion control plan #P18-00446-ECPA. Securities may be posted in one or more of the forms specified NCC Section 17.38.030.

- a. Security in the amount of the estimated cost of original installation of the required erosion control measures.
- b. Security in the amount of twenty-five percent of the estimated costs of original installation of the required erosion control measures.

With respect to violations and penalties, the provisions of Napa County Code Sections 18.108.140(B) and 18.108.140(C) (below) would apply to the project, if approved, and would be initiated and implemented by the County as warranted.

18.108.140(B) Violations. Whenever the director determines that a violation of this chapter has occurred, the director shall notify the violator in writing of the violation and require that certain conditions be implemented or adhered to in a reasonable amount of time to correct the erosion problem. Conditions may include applying for approval of an erosion control plan, implementation of remedial erosion control actions, removal of agricultural crops and related infrastructure planted without an approved erosion control plan or use permit, removal of structures constructed in violation of the NPDES [National Pollutant Discharge Elimination System] program, and/or revegetation of disturbed areas. Each failure to comply with the director's notice or meet the deadlines specified therein shall constitute a separate and distinct violation, punishable as set forth in subsection (C) of this section. Moreover, the county and its agents may with the property owner's consent, with a warrant, or in an emergency enter the property and make necessary repairs or corrections, or perform needed maintenance. The property owner shall fully and completely reimburse the county for the costs associated with this remedial work.

18.108.140(C) Penalties. It is unlawful and a public nuisance for any person to violate any of the provisions of this chapter for any purpose or to cause any other person to do so. Such a violation shall be enforceable as a misdemeanor pursuant to Napa County Code Sections 1.20.150 and 1.20.160. Such a violation may also be abated as a public nuisance by judicial action or by administrative enforcement in accordance with the procedures set forth in Chapter 1.20, commencing with Section 1.20.010, including those pertaining to treble damages for multiple judgments. In addition, administrative penalties may be imposed in the manner specified in Chapter 1.28 (Administrative Penalty) of the Napa County Code. In addition, the director may issue a stop work order, report the violator to the appropriate licensing agencies (such as the State Contractor's Licensing Board), report the violator to applicable responsible and trustee agencies, require that the violator apply for and obtain all

required permits, refer the matter to the district attorney's office for civil or criminal prosecution and any such other remedies the director deems appropriate.

Therefore, it is anticipated that the conditions, Draft EIR mitigation measures, and applicable code sections would provide adequate oversight and compliance measures for project implementation and ongoing operation. Additionally, no new or additional evidence has been provided demonstrating the potential level of impact that would occur beyond what is identified in the Draft EIR, or that the project or Draft EIR mitigation measures would need to be revised to adequately disclose and address potential compliance matters associated with the project.

O1-62 As stated on Draft EIR pages 3.6-7 and 3.6-8, the proposed fertilizers (including CAN-17, K-Carb, 10-34-0, and a micronutrient blend), and herbicides (including glyphosate and gluphosinate for weed control) may be applied to the vineyard up to two times per year. No pre-emergent herbicides would be sprayed in the vine rows for weed management. Contact or systemic herbicides may be applied in the spring (no earlier than February 15). Mildewcides including wettable sulfur, quinoxyfren, and tetraconazole to protect against mildew may be applied to the vineyard up to three times per year.

The proposed project would be required to conform with federal and state laws enforced by the U.S. Environmental Protection Agency and the California Department of Pesticide Regulation. The project also must achieve performance standards for the discharge of nutrients and pesticides established by the San Francisco Bay Regional Water Quality Control Board's waste discharge requirements for vineyards 5 acres or larger that are located in the Napa River watershed. Discharge performance standards pertain to soil erosion rates in the farm (vineyard) area, sediment delivery from existing unpaved roads and new roads, storm runoff from existing or new Hillslope Vineyards, pesticide management, and nutrient management (San Francisco Bay Regional Water Board 2017).

O1-63 See Response to Comment O1-62. As noted in the comment, the Applicant would implement an integrated pest management plan and the proposed vineyards would be managed using sustainable farming practices. With integrated pest management, pesticides would be used only after monitoring indicates that they are needed based on established guidelines, and treatments would be made with the goal of removing only the target organism.

Nevertheless, chemical pesticides could be used as needed throughout the development area. As stated in Response to Comment O1-52 and Impact 3.6-1, the stream setbacks incorporated in the project design are generally adequate to provide enough vegetation to entrap sediments and soils, and to filter chemicals adequately by facilitating degradation within buffer soils and vegetation. The proposed project also includes a permanent no-till cover crop for the vineyard blocks that would be maintained at between 75 and 85 percent density (see Draft EIR Appendix A, page EC-5 for the specific vegetative cover by block) and would filter flows during storms. The Hazardous Materials Conditions of Approval (Draft EIR pages 3.6-9 and 3.6-10) would further avoid and/or reduce potential impacts from the use of hazardous materials during ongoing vineyard operations and maintenance.

- **O1-64** As stated on page 2-12 of the Draft EIR and the Erosion Control Plan (Draft EIR Appendix A), no contact or systemic herbicides may be applied earlier than February 15. The proposed project also includes a permanent no-till cover crop for the vineyard blocks that would be maintained at between 75 and 85 percent density (see Draft EIR Appendix A, page EC-5 for the specific vegetative cover by block); this is supported by both the Napa County General Plan and the County's Revised Draft Climate Action Plan and is part of the checklist of best management practices that projects are encouraged to use. See also Response to Comment O1-61 regarding compliance with the conditions, Draft EIR mitigation measures, and applicable code sections that would provide adequate oversight and compliance measures for project implementation and ongoing operation.
- **O1-65** Draft EIR Section 3.6, *Hazards and Hazardous Materials*, states that the cover crop would be mowed between June and August to reduce habitat for invasive insects, potentially reducing the need to use pesticides that would otherwise be used to control insects. The Erosion Control Plan (Draft EIR Appendix A) states that tilling would be conducted in accordance with the Napa County Protocol for Re-Planting/Renewal of Approved Non-Tilled Vineyard Cover Crops (2004), and would only occur as necessary and where needed to maintain specified cover crop density; the documents do not indicate that tilling would occur on 50 percent of the total cover crops, as stated in the comment.
- **O1-66** The commenter has not explained why the 200-foot setback for pesticide storage is inadequate. The suggestion to require 300-foot setbacks from all perennial and ephemeral streams, not including vineyard avenues, is noted. See Responses to Comments O1-57 and O1-61 through O1-63. As discussed in Draft EIR Chapter 2, Project Description, the proposed project design incorporates setbacks from all drainages on the project site, with the exception of crossings required for access. The two ephemeral streams on the project site that meet the County's definition of a stream have no-touch setbacks ranging from 55 to 105 feet based on slope, in accordance with Section 18.108.025 of the Napa County Code. In addition, the proposed project would avoid other waters not defined by the County as streams and would maintain 50-foot buffers from these areas, consisting of 26 feet of undisturbed native vegetation and 24 feet of vegetated vineyard avenue. The avenues would be subject to the same vegetative cover crop requirements as the adjacent vinevard block under the Erosion Control Plan. During storms, these setbacks would filter flows and reduce the potential for petroleum products, pesticides, herbicides, mildewcides, or fertilizers to reach drainages onsite. The proposed project also would comply with the laws and regulations

governing the management of hazardous materials to reduce potential hazards, as discussed in Draft EIR Section 3.6, *Hazards and Hazardous Materials*, Impact 3.6-1.

- **O1-67** As explained in Responses to Comments O1-5 through O1-66, the Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015).
- **O1-68** The commenter's opposition to the Proposed Project is noted. As explained in Responses to Comments O1-5 through O1-66, the Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015). The commenter's request for a revised and recirculated Draft EIR is noted.
- **O1-69** Napa County will provide the Center for Biological Diversity with notification of proposed actions and pending decisions regarding the Proposed Project. The contact information of the commenter is noted.

LETTER O2



VINEYARD DESIGN FROSION CONTROL WATER DEVELOPMENT DRAINAGE PERMITTING GPS/GIS

2800 Jefferson Street Napa, California 94558 707-253-1806 www.ppiengineering.com

March 29, 2021

Donald Barrella Napa County Planning, Building & Environmental Services 1195 Third Street, Room 210 Napa, CA 94559

Via email: Donald.Barrella@CountyofNapa.org

RE: Mitigation Measure Recommendations to Address Post-Fire Conditions Draft Environmental Impact Report (EIR) for Stagecoach North Erosion Control Plan (ECP) #P18-00446-ECPA

The Draft Environmental Impact Report (EIR) prepared for the Stagecoach North Vinevard Erosion Control Plan (project) identified impacts to special status plants and habitats that would occur due to vineyard development (ESA, 2021). The draft is under public comment until March 02-1 29, 2021. Consistent with the California Environmental Quality Act (CEQA) and Napa County General Plan policies, impacts were reduced to less-than-significant levels through a combination of avoidance, preservation, and mitigation.

STATEMENT OF QUALIFICATIONS

Comments presented herein were prepared by Dr. Adrienne Edwards, an employee of PPI Engineering. I am a botanist and plant ecologist with over 25 years of experience conducting floristic surveys, monitoring, researching and preparing reports (EPA, USFWS, California State University Research Board, South Florida Water Management District, Everglades National Park, Illinois Department of Natural Resources), grants (USFWS, U.S. Forest Service), presentations, and manuscripts for peer-reviewed journals. I hold a Master of Science Degree in Botany and a Doctorate of Philosophy in Botany from University of Georgia-Athens, and a Bachelor of Arts in Botany from University of North Carolina-Chapel Hill. I have conducted surveys in Napa County for 13 years, including on the Stagecoach Infill Development EIR (2005-2013), Walt Ranch Project (2008-2017), Circle S Ranch Project (2007-2011), Langtry Farms Dam Modification and Vinevard Project (2002-2003), and Suscol Mountain Vinevard Project (2010-2012).

THE HENNESSEY FIRE

This memo is the result of post-fire surveys conducted to examine the impacts of the Hennessey Fire (part of LNU Lightning Complex Fire) on special status plant species. The Hennessey Fire was ignited by lightning August 17, 2020, and burned the majority of the Stagecoach North property (refer to Photo 1 at the end of this letter). GIS resources available from Napa County and the National Interagency Fire Center showed that the entire property was within the fire perimeter, although small pockets of vegetation, likely less than 5-10% of the property, did not burn. Surveys of areas containing special status plants and habitats were conducted by Adrienne Edwards and Annalee Sanborn on March 15-16, 2021.

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Donald Barrella March 29, 2021 Page 2 of 6

In this letter I summarize the results of those surveys with respect to any fire-related impacts to special status species, and with proposed adjustments to proposed mitigation that remain consistent with the objectives of the EIR.

IMPACTS OF THE 2020 HENNESSEY FIRE ON MITIGATION

Holly-leaved Ceanothus. All chaparral habitat on the property burned in the Hennessey Fire. This included all habitat occupied or suitable for holly-leaved ceanothus (CEPU2). Only a few shrubs were discovered unburned, near the access gate to the wells. Mitigation Measure 3.3-1b in the Draft EIR proposed propagating CEPU2 seeds for replanting from existing populations on Stagecoach North to replant 1,595 CEPU2 individuals across 42 acres to mitigate project impacts. This species only regenerates from seed after fire and does not resprout from underground tissues. However, the handful of mature CEPU2 plants left on the property from which seed could be collected is insufficient to represent the genetic diversity present prior to the fire.

Consequently, propagation cannot be completed solely by collecting seeds from CEPU2 shrubs on site, as proposed in the Draft EIR. Instead, four options are possible to accomplish CEPU2 mitigation for this project: 1) assisted seedling recruitment in replanting areas, 2) propagating seeds from CEPU2 shrubs from the adjacent Stagecoach property, 3) propagating cuttings from CEPU2 shrubs from the adjacent Stagecoach property, and 4) transplanting young CEPU2 seedlings from the development areas into pots for later transplantation. Any combination of these four options could be used to produce transplants to satisfy the required mitigation for this species. Each of these options is described below.

<u>Assisted Seedling Recruitment in Replanting Areas</u>. Seedlings that establish naturally in designated replanting areas could be protected, monitored, and included in the mitigation of 1,595 replacement individuals. We found low densities of CEPU2 seedlings in some areas where CEPU2 had been mapped previously during our March 2021 surveys. These seedlings had germinated from the soil seed bank after the fire (refer to Photo 2 below). Replanting areas with CEPU2 seedlings in the vicinity should be prioritized over areas where no seedlings are found.

Seedling establishment of CEPU2 from the soil seedbank is an ideal predictor of habitat suitability. Seedlings may germinate in areas where mature shrubs were absent prior to the fire, but they will establish in suitable microsites. Mature plants produce seed annually, and seed banks are variable over time and space. Seeds are shed explosively from capsules, and may be further dispersed by gravity, water, and seed-caching rodents. Seeds remain viable for many decades in soil, although some portion of the seed bank is lost each year to predation.

Strategies to encourage natural seedling establishment include the following. When CEPU2 seedlings are present in avoided areas, all competing non-special status plants should be cleared around individual seedlings within a 12-inch radius to promote regeneration to pre-fire levels. Cleared plants could then be used to mulch around selected CEPU2 seedlings. Seedlings that are less than about 24 inches from re-sprouting chaparral shrubs, (i.e., chamise, scrub oak, partridge pea, and California bay), should be ignored because seedlings do not

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Donald Barrella March 29, 2021 Page 3 of 6

compete well against plants that can regenerate from intact root systems. In other words, the re-sprouting shrubs would likely outcompete the CEPU2 seedlings within 1-2 growing seasons and result in mortality of the targeted CEPU2 (refer to Photo 3 below). Management of the CEPU2 seedlings should be documented and successful recruits should count towards the total 1,595 CEPU2 required by Mitigation Measure 3.3-1b.

<u>Propagules Collected from Adjacent Stagecoach Property; Seeds and Cuttings</u>. Two additional options for meeting the mitigation goal of 1,595 CEPU2 plants would be to collect seeds and cuttings from the mature shrubs on the adjacent Stagecoach property for propagation. The two properties have similar soils and vegetation types, and the CEPU2 plants on Stagecoach would be similarly adapted. We recommend replicate cuttings taken from at least 100 mature CEPU2 shrubs across several different locations on the Stagecoach property to ensure adequate sampling of available genetic variation. In addition, seeds from at least 100 shrubs should also be collected to optimize propagation capabilities. Although there has been demonstrated long-term success propagating CEPU2 from stem cuttings, this propagation technique can be challenging. It is strongly recommended that a nursery with experience propagating chaparral plants collect and propagate the cuttings and seeds for this species in particular.

<u>Transplanting Young CEPU2 Seedlings from the Development Areas into Pots for Later</u> <u>Transplantation</u>. The final option for meeting the mitigation goal of 1,595 CEPU2 plants would be to dig up young seedlings from proposed vineyard blocks and pot them up for replanting later. Seedlings should only be dug up during late fall through spring; seedlings dug up in summer are unlikely to survive transplanting.

Transplants generated from seeds, cuttings, or seedlings could only be planted into avoidance areas after significant winter rains, during winter months. Occasional irrigation would be required to help plants establish during the first year or two after transplanting. No plants should be irrigated when temperatures are above about 90° F because that will kill the plants.

Two Carpellate Western Flax. This annual plant requires disturbance and an open canopy to germinate from the seed bank. Mitigation Measure 3.3-1f recommends collecting two-carpellate western flax seeds from the onsite population for propagation and then replanting 2,472 individuals. Unfortunately, attempting to transplant this short-lived annual plant into the field from greenhouse-propagated seedlings would likely be unsuccessful. This plant completes its life cycle within just a few months. Therefore, seeds collected onsite would need to be transferred immediately to the avoided areas. In addition, while seed collection is possible it would be difficult because these flax plants are only 10-30 cm tall, with a few seeds contained in each 2 mm round capsule. For these reasons, a more successful approach would be to transplant soil containing seeds from areas where the plant was mapped inside future vineyard development areas to appropriate habitat in avoided areas.

Where this flax species was mapped inside future vineyard areas, I recommend that the top 1-3 inches of soil be removed with hand shovels prior to vineyard development. This plant occurs in thin, very rocky soils. The depth of soil collection is less important than sampling as much of the total mapped population area as practical. The soil should then be carted to the preservation

O2-4 Cont.

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Donald Barrella March 29, 2021 Page 4 of 6 **LETTER O2**

areas where other flax populations have been mapped and scattered across open areas. Although not required, to facilitate future monitoring efforts I recommend that flagging be used to delineate the outer perimeters where the seed bank was deposited.	O2-5 Cont.
Green Monardella. No damage is expected because these perennial subshrubs resprout after fire, and may in fact become more apparent after disturbance of the chaparral canopy (refer to Photo 4 below showing the post-fire resprouting of this species). Mitigation Measure 3.3-1h in the Draft EIR states that 1,162 plants shall be replanted from seeds collected onsite. This plant can be propagated from seeds, cuttings, and by division of existing clumps. Cuttings are easy to propagate in this genus, and may be a more efficient way to propagate plants for replanting. Regardless of method used, cuttings and/or seeds should be collected from a minimum of 100 individual existing plants on site. For optimal success, it is strongly recommended that a nursery with experience propagating chaparral plants collect and propagate the cuttings and/or seeds for this species.	02-6
NO CHANGES TO DRAFT EIR ANTICIPATED	T
Nodding Harmonia. This annual plant was identified in one location on the property and will be completely avoided by Mitigation Measure 3.3-1i. This annual plant is expected to vary in population size from year to year. Nodding Harmonia requires thin rocky habitats and full sun to light shade. Because its habitat will be avoided, no changes to the mitigation measure are recommended as a result of the Hennessey Fire.	
Small-flowered Calycadenia. This annual plant was identified in one location on the property and will be entirely avoided by Mitigation Measure 3.3-1e. Therefore, no changes to the mitigation measure are recommended as a result of the Hennessey Fire.	
Narrow-anthered Brodiaea. This plant was identified on the property but would not be impacted by the proposed project. No damage is expected to underground bulbs or corms due to the Hennessey Fire, and the fire could make plants easier to locate now that the chaparral canopy is gone.	02-7
Franciscan Onion. Only six plants were identified onsite, and all will be avoided by Mitigation Measure 3.3-1c. Because its habitat will be avoided, no changes to the mitigation measure are recommended as a result of the Hennessey Fire. No damage is expected to underground bulbs or corms due to the Hennessey Fire, and the fire could make plants easier to locate now that the chaparral canopy is gone.	
Please do not hesitate to contact me should you have any questions regarding any of the above information.	02-8
Sincerely,	-
Dr. Adrienne Edwards	

Dr. Adrienne Edwards

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Donald Barrella March 29, 2021 Page 5 of 6

SITE PHOTOS



Photo 1: Stagecoach North property after Hennessey Fire, taken March 15, 2021



Photo 2: Pen is pointing to CEPU2 seedling below burned CEPU2 adult

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Donald Barrella March 29, 2021 Page 6 of 6

SITE PHOTOS



Photo 3: Typical chaparral species that can resprout from the roots of the burned adults have a growing advantage over other species, like CEPU2, that must resprout from seed.



Photo 4: Green monardella sprouting after Hennessey Fire

Letter O2PPI Engineering, Adrienne Edwards, PhDResponseMarch 29, 2021

- **O2-1** The comment describes the Draft EIR prepared for the proposed project; the comment is noted.
- **O2-2** The commenter describes her botanical background, relevant education, and experience conducting surveys in Napa County. The comment is noted.
- **O2-3** The comment is noted.
- **O2-4** The four options identified by the comment to propagate holly-leaved ceanothus have been evaluated by the EIR biologist and deemed acceptable and comparable to the mitigation proposed in the Draft EIR. The four options have been added to Mitigation Measure 3.3-1b (see Final EIR Chapter 2, *Revisions to the Draft EIR* and Chapter 4, *Mitigation Monitoring and Reporting Program*).
- **O2-5** Mitigation Measure 3.3-1f, related to two-carpellate western flax mitigation, has been revised to incorporate the recommendation in the comment to transfer soil containing seeds to the Preservation Area instead of collecting seed and then replanting (see Final EIR Chapters 2 and 4).
- **O2-6** Mitigation Measure 3.3-1h, related to green monardella mitigation, has been revised to incorporate the recommendations in the comment on how the plant is replanted within the Preservation Area (see Final EIR Chapters 2 and 4).
- **O2-7** The comment states that no additional changes are necessary for the plants proposed for avoidance. The comment is noted.
- **O2-8** Napa County thanks the commenter for the Draft EIR comments provided.





VINEYARD DESIGN EROSION CONTROL WATER DEVELOPMENT DRAINAGE PERMITTING GPS/GIS

2800 Jefferson Street Napa, California 94558 707-253-1806 www.ppiengineering.com

March 29, 2021

Donald Barrella Napa County Planning, Building & Environmental Services 1195 Third Street, Room 210 Napa, CA 94559

Via email: Donald.Barrella@CountyofNapa.org

RE: Draft Environmental Impact Report (EIR) for Stagecoach North Erosion Control Plan (ECP) #P18-00446-ECPA

Dear Don,

As the Civil Engineer and Project Manager who prepared the Erosion Control Plan (ECP) for the Stagecoach North Vineyard Project (#P18-00446-ECPA), we respectfully submit the following comments as they pertain to the Draft EIR prepared for the project.

1. Air Quality and Greenhouse Gas Analyses

1.1 Tier 4 Construction Equipment

Mitigation Measure 3.2-1a requires the use of Tier 4 construction equipment to reduce the emissions of oxides of nitrogen (NOx) to below significance thresholds. The analysis was conducted for the entire 116.2 gross acre project and modeling showed that uncontrolled NOx emissions could be 87.7 pounds per day, above the maximum 54 pound per day significance threshold. As such, Mitigation Measure 3.2-1a requires the use of Tier 4 construction equipment to reduce emissions to less-than-significant levels. The modeled effect of using exclusively Tier 4 equipment is a reduction to only 7.9 pounds per day emissions of NOx, much lower than the threshold of significance. We understand that the Applicant is writing a separate comment letter speaking to the challenges of obtaining Tier 4 equipment or locating contractors who have this equipment, and how this contradicts with their goals to utilize equipment that they already own onsite and minimize equipment transport. Knowing that the difficulties in obtaining Tier 4 equipment will be explained elsewhere, we will focus on several mitigation options that would be equally effective in reducing NOx emissions to below the 54 pounds-per-day threshold.

The exclusive use of Tier 4 equipment is not the only method to reduce emissions of NOx to below the 54 pounds-per-day threshold. We request that alternative modeling methods and mitigation measures be investigated, including but not limited to:

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O3-2

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Donald Barrella March 29, 2021 Page 2 of 16

- Rerun the air quality model to take into account the Mitigated Project acreage (90.5 gross acres) or the Environmentally Superior Alternative (Increased Preservation Area; 84.2 gross acres) to assess whether reduced acreage decreases the NOx emissions to below the significance threshold.
- Rerun the air quality model to take into account the construction phasing required by Mitigation Measure 3.3-1j, which requires no more than 40-50 acres be constructed in the first year.
- Work with the Applicant to determine if the smaller Mitigated Project footprint alters or reduces the type or runtime of the equipment and then rerun the model accordingly.
- Determine if a combination of Tier 3 and Tier 4 equipment could be utilized for construction while remaining under the significance threshold, and provide operational flexibility to use a "mix" of equipment.
- Determine the total hours per day that construction equipment can operate without exceeding the 54 pounds-per-day threshold, and provide mitigation limiting the Applicant to that identified constraint.
 O3-2 Cont.

We believe that the Draft EIR artificially overstated potential air quality impacts by modeling a project that did not accurately reflect mitigation measures found elsewhere in the Draft EIR, namely those that reduce the overall project acreage and implement construction phasing. As demonstrated by the list of alternate approaches above, there are numerous potential ways to ensure impacts due to NOx emissions are reduced and Mitigation Measure 3.2-1a should be revised to provide such flexibility. Unmitigated emissions for the entire vineyard are estimated at 87.7 pounds per day of NOx. Mitigated emissions are estimated at 7.9 pounds per day. Thus, NOx emissions are being reduced by this mitigation measure to a much greater extent than is required to reduce those emissions below the threshold. For this reason, the County should not require the project to adhere to a single, rigid approach of doubtful feasibility.

1.2 Greenhouse Gas Analysis Construction Emissions

Initially, the project Applicant proposed to chip half the vegetation and burn the other half in order to minimize the amount of carbon released into the atmosphere and have a lesser carbon footprint.

The LNU Fire Complex burned the property in 2020. For this reason, it was impossible to accurately quantify how much standing carbon remains on the property and how much could be retained with the combination burning and chipping method initially proposed by the Applicant. Refer to Photo 1 below for a depiction of typical post-fire conditions on the property as they exist today. In order to present a more conservative analysis after the LNU Fire occurred, on October 23, 2020¹ the Applicant agreed to the County's proposal to have the EIR assume that all of the vegetation would be burned for the purposes of the greenhouse gas (GHG) analysis in the Draft EIR. It appears that the GHG analysis included in the Draft EIR Appendix C was

03-3

¹ Sanborn, Annalee. "RE: Stagecoach and RE: KJS ADEIR 1 - Draft Project Description." Message to Donald Barrella. 23 October 2020. E-mail.

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Donald Barrella March 29, 2021 Page 3 of 16

conducted on March 8, 2020 and predated both the LNU Fire Complex and the Applicant's change in assumptions for the chipper. Therefore, the Draft EIR's GHG analysis may understate the amount of construction emissions resulting from vegetation removal by half; the Draft EIR states that 4,140 MT of CO₂e would be released, but this total appears to be based on the estimates presented in Appendix C, before the LNU Fire had occurred. The Draft EIR should instead have stated that 8,280 MT of CO₂e will be released. If Table 3.2-8 and Table 3.2-9 are corrected the project emissions still fall below the identified thresholds of significance. Below please find corrected calculations of GHG emissions for the EIR. New text is shown in <u>underline</u> and deleted text is shown in <u>strikethrough</u>.



Photo 1: Post-LNU Fire conditions on the property. Photo taken in proposed Block V3 on March 15, 2021

TABLE	3.2-8
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ESTIMATED CHANGE IN GREENHOUSE GAS EMISSIONS FROM CARBON STOCKS AND SEQUESTRATION			
Vegetation/Land Use Type	Total MT CO₂e		
Carbon Loss – Existing Land Use Removal			
Carbon Storage	4 ,140 <u>8,280</u>		
Carbon Sequestration (annual)	557		
30-Year Lifetime Emissions	20,859 <u>24,990</u>		
Carbon Gains – New Land Use Types ^a			
Carbon Storage	-11,800		
Carbon Sequestration (annual)	-5		
30-Year Lifetime Emissions	-11,961		
Total Project Lifetime Emissions	8,899 <u>13,029</u>		
Total Project Annual Emissions	297 434.3		
NOTES			

MT CO2e = metric tons of carbon dioxide equivalents

^a Emissions are reported as negative because they represent a greenhouse gas emissions sink. SOURCE: Data compiled by Environmental Science Associated in 2020 (see **Appendix C**).

O3-3 Cont.

TABLE 3.2-9				
ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS FROM PROJECT OPERATION				
Source	MT CO ₂ e (metri	c tons per year)		
Mobile Sources		23		
Off-Road Farming Equipment		271		
Diesel Generator		28		
Net Change in Carbon Storage and Sequestration	297	434.3		
Amortized Construction Emissions		30		
Total	649	<u>786</u>		
BAAQMD Operational GHG Threshold	1,1100			
Exceeds Threshold?	No			
NOTES: BAAQMD = Bay Area Air Quality Management District: CO2e = carbon dioxide equivalents: GHG =				

NOTES: BAAQMD = Bay Area Air Quality Management District; CO2e = carbon dioxide equivalents; GHG = greenhouse gas

SOURCE: Data compiled by Environmental Science Associated in 2020 (see Appendix C).

These revisions are designed to ensure that the information set forth in Appendix C is updated to reflect the revisions to the project that occurred after Appendix C was prepared, but before the County published the Draft EIR. If these changes are made, the EIR's analysis will be consistent with both Appendix C's approach and the Draft EIR's analysis.

Please note that, even if these changes are made, the project's CO2e emissions remain below the applicable threshold. The EIR's conclusion that these emissions are less than significant remains valid.

Finally, please note that these calculations are based on the Applicant's original proposal to implement a vineyard with a gross size of 116.2 acres. To the extent the County approves a smaller project, GHG emissions will be proportionately reduced.

2. Avoidance in Certain Areas is Infeasible

The Mitigated Project layout in Figure 3.3-6 did not take into account the infrastructure proposed in the ECP to ensure compliance with the County's policies requiring no-net-increase in runoff. The Mitigated Project layout requires avoidance of areas that contained multiple proposed detention basins, ditches, infield diversions, and pipelines. The Draft EIR states that the Mitigated Project would allow planting of 69.0 net acres in 90.5 gross acres cleared; this overstates the potential plantable area because the infrastructure that was impacted by the avoidance areas would need to be relocated within the remaining areas allowed to be developed.

The Draft EIR does not disclose that the Mitigated Project cannot be built as depicted in Figure 3.3-6 because it does not comply with the County's policy requiring no-net-increase in runoff. PPI Engineering has been working diligently during the public comment period of this Draft EIR to attempt to redesign the project within the Mitigated Project's outer clearing limits to meet the no-net-increase-in-runoff standard. Fortunately, we have been successful in mitigating potential

O3-3 Cont.

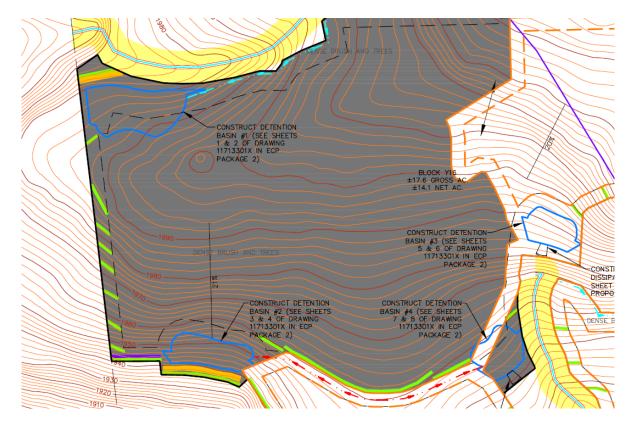
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Donald Barrella March 29, 2021 Page 5 of 16

runoff increases in Watersheds 1B, 1C, 1D, 1E, and 2; unfortunately, we have been unable to find a solution for Watershed 1A.

The Mitigated Project layout is infeasible for Watershed 1A as currently depicted in the Draft EIR because it results in an increase in peak runoff due to the loss of both detention basins in that subwatershed and no alternative infrastructure could be identified within the mitigated clearing limits to address the increases. Refer to the snip below for a depiction of the Mitigated Project layout overlaid on the original ECP:



O3-4 Cont.

Vineyard to be removed from the project is shown in gray. The watershed divide runs roughly north-south through the central portion of the avoided area between Basin #2 and Basin #4. Three out of the four detention basins originally proposed in Block Y16 have been eliminated in the Mitigated Project, although only Basin #1 and Basin #2 are within Watershed 1A.

There are no sensitive plant species mapped in the footprint of Detention Basin #2, which is approximately 0.4 acre. The area has been mapped as the California Bay - Madrone - Coast Live Oak - (Black Oak Big-Leaf Maple) NFD Super Alliance habitat type (hereinafter referred to as "California bay forest" for consistency with the Draft EIR), which occupies 50.24 acres across the property. Because no feasible alternative has been identified to mitigate hydrology impacts resulting from avoidance of the Detention Basin #2 footprint, we have identified two alternate mitigation options that would allow Detention Basin #2 to be brought back into the project while offsetting impacts to 0.4 acre of California bay forest.

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Option 1 would be to include an additional 0.8 acre into the California bay forest replanting required in Mitigation Measure 3.3-2a. Although we understand the County has based the Draft EIR analysis on a pre-fire baseline condition, it is important to note that the vast majority of the mapped California bay forest on the property does not currently exist (see Photo 2 below). Therefore, additional forest remediation would be beneficial to stabilize soils and revegetate the area and, in our opinion, would be the most environmentally beneficial mitigation as compared to Option 2 discussed below. We have preliminarily identified an area between Blocks Y14 and W8 for this California bay forest enhancement; refer to the Habitat Map included at the end of this letter. This area is suitable for replanting California bay forest. By recommending Mitigation Measure 3.3-2a, the County has already recognized that replanting is an effective and appropriate approach to address impacts to this habitat. This same approach should be used here.

Option 2 would be avoiding 0.8 acre of California bay forest in an alternate area on the property. We have preliminarily identified this area in the northwest corner of Block Z20 as shown on the attached Habitat Map.

We request that the County allow the Applicant to proceed with Detention Basin #2, and to replant an additional 0.8 acres of California bay forest in the area located between Blocks Y14 and W8. This approach would meet the County's no-net-increase standard for run-off, and mitigate fully impacts to degraded California bay forest habitat.

O3-4 Cont.



Photo 2: Detention Basin #2 post-LNU Fire. Photo taken on March 15, 2021

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3. Concerns with Biological Mitigation

3.1 Wildlife Entrapment Risk

Numerous measures in the Draft EIR require avoidance of all or portions of vineyard blocks, and Figure 3.3-6 in the Draft EIR includes a mitigated deer fence layout around the Mitigated Project footprint. The total length of the mitigated deer fence is 33,941 feet whereas the original proposed deer fence was 8,527 feet, representing an almost four-fold increase in the amount of fencing that would be required. This large increase in the amount of fencing greatly increases the cost of project construction, but more importantly the mitigated deer fence required by Mitigation Measure 3.3-4 creates wildlife entrapment risk and undermines the County's goal of improving wildlife movement corridors.

Figure 3.3-6 does not depict the existing deer fence in the vicinity and therefore does not accurately portray existing or proposed site conditions. There is an existing deer fence that follows the majority of the southern property line of the Stagecoach North parcel; the segment that deviates from the parcel line to border existing vineyard on the southern parcel still creates a complete barrier to wildlife movement in the north to south direction. As mentioned above, Figure 3.3-6 does not show this existing fence and the aerial photo view is cut off to the south, creating the impression that a wildlife corridor is present that extends off the property to the south. Such a corridor does not actually exist.

The mitigated deer fence layout follows the vineyard clearing limits almost exactly, including a small circle inside Block V4 where a plant population will be avoided. There is no need for a tiny circle of deer fence inside an existing vineyard block that would be completely circled on the outside by deer fencing. While this is only speculative, we wonder if this was a GIS error; certainly, the logic behind providing wildlife exclusionary fencing for this plant population was not explained in the Draft EIR. There are several other locations explained below where the mitigated deer fence does not meet its goal of creating a usable wildlife corridor.

PPI Engineering has included with this letter an alternative mitigated deer fence layout that includes blocks fenced individually and in clusters, and we believe minimizes the potential impact to wildlife movement to less-than-significant levels while balancing the total amount of fencing required. Wildlife corridors are important to create linkages between open space for wildlife to move through the landscape. Shown on this figure are several areas where the Draft EIR mitigated fence layout creates dead-end corridors that increase the risk of wildlife entrapment. Of particular note is the corridor between Blocks V3 and V4. The mitigated fencing layout creates a 50-foot-wide corridor that would funnel animals up to a dead end and then force animals to completely turn around to get out of this corridor. There are other areas where similar dead-end corridors could entrap wildlife, specifically in Blocks Z18, between X11 and X12, and between V1 and V2. The alternative proposal included with this letter still creates linkages between open space to the north, east, and south to minimize potential impacts to wildlife movement, while minimizing entrapment risk and the total amount of fencing required.

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3.2 Mitigation for California Bay Forest

Impact 3.3-2 in the Draft EIR discusses how California bay forest is considered a sensitive biological community by the California Department of Fish and Wildlife (CDFW), and therefore Napa County's General Plan Policy CON-17 requires avoidance, restoration, replacement, or preservation of like habitats at a 2:1 ratio. The Draft EIR states that Mitigation Measure 3.3-2a reduces the impact to less-than-significant levels by requiring preservation and enhancement of 10 acres. We agree that some level of avoidance, preservation, and enhancement is appropriate to minimize the impact to less-than-significant levels in compliance with CEQA, but Mitigation Measure 3.3-2a overstates the amount of enhancement required to minimize impacts to below the identified threshold.

The Biological Resources Survey Report prepared by LSA (2018) and included as Appendix D to the Draft EIR included mitigation recommendation BIO-2 to enhance 10 acres of California bay forest.² This was originally included because the LSA report did not include the large-scale reductions in project acreage that are included in the Draft EIR, and so 10 acres was required to be enhanced to offset larger impacts to the habitat type. Once the Draft EIR avoidance mitigations are included, the amount of required mitigation enhancement is much lower. The calculations are as follows:

Total California bay forest on property	50.2 acres
Original Proposed Project impacts	31.6 acres (63%)
Impacted after Draft EIR mitigation	17.2 acres (34%)
California bay forest remaining on property	33 acres
Amount required for 2:1 preservation?	34.4 acres
Additional area required for 2:1 ratio	1.4 acres

Please note that Policy CON-17(e) implies that enhancement or restoration would be required at a 1:1 ratio and only states that preservation of existing habitats would be required at a 2:1 ratio as follows:

e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

Therefore, the County should revise Mitigation Measure 3.3-2a to provide that 1.4 acres of enhancement is more than sufficient to comply with the County's General Plan. However, in light of the combination of preservation and enhancement anticipated by the Draft EIR and the current conditions post-LNU Fire, 1.4 acres seems appropriate even though it is technically greater than what is required by Policy CON-17. The County's obligation is to adopt feasible

² LSA. 2018. Biological Resources Survey (2018 Update) for the Stagecoach North Vineyard Project (APN 032-010-086-000), Napa County, California. Pt. Richmond, CA. Submitted to PPI Engineering, Napa, CA. November 2018.

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mitigation measures, to the extent necessary to avoid impacts that would otherwise be significant. (Pub. Resources Code, § 21002.) In this case, the County's consultant has concluded that a combination of avoidance plus enhancement / preservation will avoid significant impacts to this habitat. Under such circumstances, the County has met its obligations under CEQA. (*North Coast Rivers Alliance v. Marin Municipal Water Dist.* (2013) 216 Cal.App.4th 614, 649; *South County Citizens for Smart Growth v. County of Nevada* (2013) 221 Cal.App.4th 316, 336.)

If the County finds that avoiding Detention Basin #2 as discussed in Section 2 above is infeasible, then the enhancement acreage required in Mitigation Measure 3.3-2a should be updated accordingly to 2.2 acres:

Additional area required for 2:1 ratio	1.4 acres
Area required for Detention Basin #2	0.8 acres
Final Enhancement Total	2.2 acres

Mitigation Measure 3.3-2a in the Draft EIR was copied verbatim from the BIO-2 measure in the LSA study and was not updated to reflect post-avoidance mitigation measure acreages that were included only in the Draft EIR and not in the LSA document. As written in the Draft EIR, it does not proportionally offset impacts and therefore is not in compliance with CEQA Guidelines § 15126.4(a) subsection (4)(B) which requires that a "mitigation measure must be 'roughly proportional' to the impacts of the project." Revising Mitigation Measure 3.3-2a to require enhancement of either 1.4 acres (or 2.2 acres with Detention Basin #2) would ensure the mitigation measure is consistent with the CEQA Guidelines. The courts have repeatedly upheld mitigation measures addressing sensitive habitat through a combination of avoidance, restoration and preservation. (See, e.g., Save Panoche Valley v. San Benito County (2013) 217 Cal.App.4th 503, 527-528; Mira Mar Mobile Community v. City of Oceanside (2004) 119 Cal.App.4th 477, 494-496; Banning Ranch Conservancy v. City of Newport Beach (2012) 211 Cal.App.4th 1209, 1233; Environmental Council of Sacramento v. City of Sacramento (2006) 142 Cal.App.4th 1018, 1038-1041 [upholding measure requiring preservation at 0.5:1 ratio].) As such, the combination of proposed avoidance and enhancement of California bay forest is consistent with CEQA once the acreage discrepancy has been addressed.

3.3 Feasibility of Replanting Special-Status Plants after the LNU Fire

Napa County has chosen to analyze the proposed vineyard project against the baseline conditions as they existed at the time of the publication of the Notice of Preparation for the project, which was prior to the 2020 LNU Fire. The Draft EIR notes this is consistent with CEQA *Guidelines* § 15125 (see page 3-2 of the Draft EIR); while this is allowed by this section of the CEQA *Guidelines*, it should be noted that the *Guidelines* give flexibility to a Lead Agency to choose a more appropriate baseline than the County has chosen to exercise here:

(1) Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. *Where existing conditions change or fluctuate over time*, and

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where necessary to provide the most accurate picture practically possible of the project's impacts, *a lead agency may define existing conditions* by referencing historic conditions, or *conditions expected when the project becomes operational*, or both, that are supported with substantial evidence. In addition, a lead agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record. (*Emphasis added*)

We understand the County's position that conducting its analysis on pre-fire conditions presents a more conservative assessment of potential impacts, although based on the flexibility found in CEQA *Guidelines* § 15125 the County could have updated the baseline to reflect the current conditions, under which much of the property was consumed by the LNU Fire. The issue now is how to implement some of the Draft EIR's mitigation measures as currently written based on current on-the-ground conditions (e.g. plant populations) that no longer exist or are found in different numbers or densities after the LNU Fire. Botanist Dr. Adrienne Edwards has conducted site visits of the property after the LNU Fire and is writing a separate comment letter to provide her recommendations on the technical aspects of how the mitigation may be achieved after the fire.

Mitigation Measure 3.3-1b requires that a qualified botanist or biologist prepare a detailed mitigation and monitoring plan for holly-leaved ceanothus to include "details on collection and propagation of seeds, techniques to avoid introducing plant pathogens to the replanting area, and preparation of the area for planting; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements." Similar language is provided in Mitigation Measure 3.3-1f (two-carpellate western flax) and Mitigation Measure 3.3-1h (green monardella), all mandating seed collection from the Stagecoach North property only. In each of these mitigation measures, the language is conflicting in that it specifies the plan must include the collection and propagation of seeds, yet defers specifics to the plan. Dr. Edwards will be presenting information on the specifics of how this mitigation can be accomplished with the resources remaining on the property after the LNU Fire. We request that, consistent with CEQA Guidelines § 15126.4(B), the County provide additional flexibility in each of these mitigation measures such that the mitigation replanting is not limited to collecting seeds from onsite sources. In the wake of the LNU Fire, such on-site seed resources may not exist. Onsite replanting would be equally effective, and much more feasible, if the applicant can rely on nearby seed resources that were not torched by the fire or taking cuttings from existing onsite plant resources that may not produce seeds post-fire for at least one (or more) years. This flexibility is consistent with CEQA Guidelines § 15126.4 regarding the formulation of mitigation measures:

(B) Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures shall not be deferred until some future time. The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental

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review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will considered, analyzed, and potentially incorporated in the mitigation measure. Compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards.

An EIR may rely on a resource management plan as an element of mitigation as long as the agency has committed to reducing impacts to less-than-significant levels. In accordance with CEQA Guidelines, significant impact determinations and formulation of mitigation measures 03-7 must occur before project approval, which has occurred here. The details of exactly how Cont. mitigation will be achieved under the plan can properly be determined at a later date within the confines of the plan. Courts routinely uphold mitigation measures that require preservation or restoration of sensitive habitat at specified ratios as adequate mitigation under CEQA. (See, e.g., Save Panoche Valley v. San Benito County (2013) 217 Cal.App.4th 503, 526 [mitigation for impacts to special status species upheld]; Banning Ranch Conservancy v. City of Newport Beach (2012) 211 Cal.App.4th 1209, 1233 [upholding mitigation requiring preservation and restoration of sensitive habitat at identified ratios]; Mira Mar Mobile Community v. City of Oceanside (2004) 119 Cal.App.4th 477 [upholding mitigation for impacts to sensitive species requiring restoration and enhancement of habitat at specified ratios].) The mitigation measures identified in the Draft EIR are directly analogous to those that have been upheld by the courts. We are not proposing a change in the amount of avoidance or replanting for any of the plant species in the mitigation measures already identified by the County. Instead, we are requesting the County provide more flexible language to ensure the mitigation can be feasibly accomplished in light of the post-LNU Fire conditions on the property.

4. Overstated Development Assumptions in the Cumulative Environment

CEQA *Guidelines* states that the "following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or B) A summary of projections contained in an adopted local, regional or statewide plan..." (CEQA *Guidelines* § 15130(b)). The list of past, present, and reasonably foreseeable future projects is the foundation for an accurate cumulative analysis, as it enables the lead agency to measure a project's incremental contribution to a cumulative impact against the backdrop of the size and scope of the other projects in the cumulative environment.

To that end, the list of cumulative ECP projects presented in Table 4-1 of the Draft EIR overstates and inaccurately portrays the Erosion Control Plans in a three-mile radius. According to the Draft EIR, there are approximately 3,167 acres of land that have been developed as vineyard since 1993. Several of the plans listed in Table 4-1 are actually vineyard replant ECPs and do not reflect new vineyard development. Some of the ECPs are duplicated, and others had

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acreages that did not match with what was approved in the ECP we found in the County database. Therefore, the total acreage of development in Table 4-1, which is then used to extrapolate the future probable vineyard development acreage for the cumulative environment, overstates the actual level of impact in the area by over 766 acres of development.

Below please find an updated Table 4-1 intended to correct the discussion of the cumulative environment. In order to present a more conservative analysis, we only updated Table 4-1 to remove an ECP if we could find definitive evidence that it was a replant or duplicate plan on the County's document database. If we could find no evidence or the documents were not available electronically (which occurred more often for older plans), then we assumed that it was a new vineyard and left the acreage in the calculation. Some ECPs included replant and new vineyard in the same plan, and for those we updated the table below to only reflect the new vineyard. New text is shown in <u>underline</u> and deleted text is shown in <u>strikethrough</u>.

CUMULATIVE EROSION CONTROL PLAN PROJECTS LIST WITHIN 3 MILES OF THE PROPOSED PROJECT (1993-2020)							
Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
1993105	September 13, 1993	Winegrowers Farming Co.	3.30	2002257	April 21, 2008	George Gaskins	10.40
1993024	October 8, 1993	Weitz Vineyard	8.30	200601441	April 29, 2008	David McBride	2.90
1993403	March 24, 1994	James Bushey	42.00	200700058	July 8, 2008	Lake Ridge Vineyards	6.30
1993224	September 30, 1994	Charles Saunders	2.20	200800460	August 15, 2008	Silverado Farming Co.– Del Dotto – <u>Replant</u>	<u>0.0</u> 16.3
1994364	July 17, 1995	Leighton Taylor	14.50	20060042	October 7, 2008	Stagecoach Vineyards	101.30
1995012	July 28, 1995	Weitz Vineyard	4.20	200800478	October 7, 2008	Joseph Phelps Vineyards - Replant	<u>0.0</u> 22.98
1995024	August 16, 1995	Jan Krupp–PPI Eng.	51.50	1998581	January 6, 2009	Jay Caldwell	38.30
1995126	October 14, 1995	Christina Vineyards- <u>Replant</u>	<u>0.0</u> 13	200900122	April 14, 2009	Stagecoach Vineyards – <u>Replant</u>	<u>0.0</u> 17.12
1995131	October 18, 1995	Michael Neal	0.75	200900167	April 28, 2009	Taylor Leighton – <u>Replant</u>	<u>0.0</u> 24.7
1996512	March 25, 1997	Patrick Kuleto	22.00	200900010	June 19, 2009	Sage Hill Vineyards	2.10
1996121	May 8, 1997	David Abreu Vineyard Management	2.70	200900161	July 6, 2009	Mary Ann Gilson – <u>Replant</u>	<u>0.0</u> 11
1996686	July 2, 1997	Grandview Vineyards	18.00	200900368	September 11, 2009	Chappellet Vineyard – <u>Replant</u>	<u>0.0</u> 28.3
1997014	August 8, 1997	Davie Pine	2.18	201000113	March 26, 2010	Stagecoach Vineyards – Replant	<u>0.0</u> 22.7

 Table 4-1

 Cumulative Erosion Control Plan Projects List within 3 Miles of the Proposed Project (1993-2020)

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Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
1996665	August 14, 1997	Kenneth Myers	10.60	201000112	March 29, 2010	Jan Krupp – <u>Replant</u>	<u>0.0</u> 15.6
1997054	August 22, 1997	Chris Willis	1.00	201000152	April 28, 2010	Timar LLC – <u>Replant</u>	<u>0.0</u> 7.4
1997092	September 4, 1997	Levine	15.00	201000187	June 10, 2010	Sugarloaf Farming Corp. – <u>Replant</u>	<u>0.0</u> 26.9
1997112	September 12, 1997	Debb Family Vineyards	24.10	200900226	August 13, 2010	Probst Family Vineyards	15.20
1997120	September 12, 1997	Stephen Girard – <u>Replant</u>	<u>0.0</u> 20	200900396	March 22, 2011	Richard Leff	20.70
96681	December 29, 1997	Joseph Phelps Vineyards – <u>New</u> and Replant ECP	<u>16.48</u> 22.98	201100093	March 23, 2011	Naoko DallaValle – <u>Replant</u>	<u>0.0</u> 8.06
1997386	March 11, 1998	George Gaskins	7.10	201100114	March 31, 2011	Stagecoach Vineyards – <u>Replant</u>	<u>0.0</u> 106.8
1998008	July 24, 1998	Chappellet Winery Inc. – <u>Replant</u>	<u>0.0</u> 18.45	201100104	April 26, 2011	Martinez Vineyard – <u>Replant</u>	<u>0.0</u> 13.61
1998042	August 25, 1998	Michael Neal	3.50	201100137	April 28, 2011	Melanson Vineyard – <u>Replant</u>	<u>0.0</u> 10.2
1996138	August 31, 1998	Oakville Ranch Vineyards	28.00	201000203	July 19, 2011	Davidowski	16.60
1995614	September 29, 1998	Dick Martin–David Pirio	2.00	201100266	August 11, 2011	Montagana Napa Valley – <u>Replant</u>	<u>0.0</u> 19.5
1996586	November 9, 1998	Stagecoach Vineyards	116.00	200200454	February 14, 2012	Rodgers Land & Development	157.00
1998159	February 22, 1999	Weitz Vineyard	<u>2.07</u> 1.72	201200021	April 12, 2012	Sugarloaf Farming Corp.	1.60
1997544	March 5, 1999	Patrick Kuleto – <u>Replant</u>	<u>0.0</u> 19.29	201200147	May 11, 2012	Chappellet Vineyard – <u>Replant</u>	<u>0.0</u> 14.4
199800129	March 30, 1999	Colgin Family Partners – <u>Duplicate</u>	<u>0.0</u> 58.20	201200321	October 8, 2012	Joseph Phelps Trust – <u>Replant</u>	<u>0.0</u> 2.4
1998320	April 2, 1999	Jan Krupp	28.79	201300132	May 14, 2013	Phillips Vineyard – <u>Replant</u>	<u>0.0</u> 1.74
1998322	April 21, 1999	Peter Murphy	9.70	201300144	June 14, 2013	Mountain Peak Vineyards – <u>Replant</u>	<u>0.0</u> 31.9
1998280	April 21, 1999	Drew Aspegren – <u>New and Replant</u> ECP	<u>1.5</u> 7.1	201400075	April 25, 2014	Krupp Brothers – <u>Replant</u>	<u>0.0</u> 31.2
1998422	April 22, 1999	John Moynier	2.00	201300133	April 28, 2014	Lumbert Vineyard Development	26.68
1998267	April 22, 1999	Beth Painter	17.00	201400142	May 15, 2014	Stagecoach Vineyards – <u>Replant</u>	<u>0.0</u> 16.6
1998247	May 6, 1999	Shafer Vineyards	14.10	201400140	May 27, 2014	Antinori Napa Valley – <u>Replant</u>	<u>0.0</u> 13.8
1998201	May 18, 1999	Soda Canyon Real Estate Investment	<u>11.8</u> 23.6	201300263	June 6, 2014	Mountain Peak Vineyards	4.60

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Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
1998051	May 28, 1999	June Townsend	25.00	201300390	September 22, 2014	Nine Suns Vineyard	0.90
1995374	June 4, 1999	Jan Krupp–PPI Eng.	374.00	201400309	October 22, 2014	Rodgers Land & Development – <u>Duplicate</u>	<u>0.0</u> 157
1998509	June 28, 1999	Gerald Warman	17.25	201000102	March 25, 2015	Arthur Havenner	<u>19.7</u> 25.6
1998563	July 13, 1999	David IIsley	3.29	201500066	July 20, 2015	Gary Raugh	<u>0.46</u> 0.51
1998218	July 21, 1999	Gregory Melanson	9.30	201500343	October 19, 2015	Bevan and DeCrescenzo	2.00
1998210	July 30, 1999	Robert Long	19.50	201500227	February 22, 2016	Phillip Sunseri	3.78
1998340	August 16, 1999	Henry Martinez	25.00	201500320	March 11, 2016	Antica Napa Valley	77.00
1998564	August 17, 1999	Drew Aspegren	15.70	201600207	May 20, 2016	Fossil Partners, LP	2.20
1998603	August 27, 1999	Rombauer Atlas Peak Vineyard	27.70	201600157	May 25, 2016	Meadowrock Rock Vineyard – <u>Replant</u>	<u>0.0</u> 34.6
1999527	July 7, 2000	Lyndsey Harrison – <u>Replant</u>	<u>0.0</u> 16	201700118	April 11,2017	Stagecoach Track II Replant – <u>Replant</u>	<u>0.0</u> 70.3
2000078	August 18, 2000	Chappellet Vineyard – <u>Replant</u>	<u>0.0</u> 53	201600059	May 10, 2017	Antica California	53.50
1999514	June 13, 2001	J. Delong – <u>New</u> and Replant ECP	<u>0.6</u> 7.9	201700228	June 7, 2017	Pritchard Hill Track II ECP – <u>Replant</u>	<u>0.0</u> 4.3
1998330	August 6, 2001	David Long	1.00	201700254	July 25, 2017	Chappellet Track II Replant – <u>Replant</u>	<u>0.0</u> 6.1
1999369	August 16, 2001	Dalla Valle Naoko	<u>2.42</u> 1.97	201700242	August 15, 2017	Capra Company Track I Replant – <u>Replant</u>	<u>0.0</u> 71.84
2001072	September 12, 2001	Jeffrey Gargiulo – <u>Replant</u>	<u>0.0</u> 16.2	201700272	August 18, 2017	Edcora Track II Replant – <u>Replant</u>	<u>0.0</u> 15.83
1998544	September 14, 2001	Gary Lencioni	<u>3.5</u> 6.37	201700328	September 15, 2017	RUDD Track II ECP – <u>Replant</u>	<u>0.0</u> 8.5
1999252	September 18, 2001	Pina Vineyard Management	3.23	201500399	December 15, 2017	Vangone Vineyards	6.20
2001108	October 4, 2001	Naoko Dalla Valla – <u>Replant</u>	<u>0.0</u> 4 .98	201800082	March 29, 2018	Sweeney Track II Replant – Replant	0.0 8
2001118	October 8, 2001	Douglas Shafer – <u>Replant</u>	<u>0.0</u> 6.7	201800052	March 29, 2018	Animo LP Track II ECP – <u>Replant</u>	<u>0.0</u> 15.6
2002140	May 29, 2002	Linda Taylor – <u>Replant</u>	<u>0.0</u> 4.9	201800062	March 29, 2018	Gallo Track II ECP – <u>Replant</u>	<u>0.0</u> 2.3
2001238	September 18, 2002	Jeff Gargiulo – <u>New</u> and Replant ECP	<u>2.16</u> 7.7	201700348	April 20, 2018	Promise Wine LLC Track I ECP (McPherson)	4.46
1998328	April 22, 2003	David Long	<u>27.2</u> 27.7	201800261	July 20, 2018	Sinskey Family LLC – <u>Replant</u>	<u>0.0</u> 4.3

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Number	Date Approved	Applicant Name	Vineyard Development Acres	Number	Date Approved	Applicant Name	Vineyard Development Acres
2003256	January 21, 2004	Buena Tierra Vineyards – <u>Replant</u>	<u>0.0</u> 75	201800029	November 16, 2018	Continuum Estate Track I ECP	5.50
2004064	February 3, 2004	Dalla Valle Naoko – <u>Replant</u>	<u>0.0</u> 12.7	201900389	January 17, 2019	Edcora Vineyards – <u>Replant</u>	<u>0.0</u> 73.48
2002368	February 17, 2004	Alan Vincent Giacosa	<u>2.8</u> 2.19	201900063	March 25, 2019	Gallo/ Stagecoach Vineyards – Replant	<u>0.0</u> 10.6
20040440	September 21, 2004	Cliff Lede – <u>Replant</u>	<u>0.0</u> 3.2	201900199	May 17, 2019	Houyi Vineyard	26.00
2002188	May 26, 2005	Steven Rivera	0.99	201900222	May 21, 2019	Shafer Family Vineyard	2.10
20050367	October 11, 2005	Shafer Vineyards – <u>Replant</u>	<u>0.0</u> 24.4	201500342	July 10, <u>April 5</u> , 2019	Hendrickson Family Vineyards	<u>26.61</u> 36
2001226	October 26, 2005	Codorniu Napa Inc.	76.00	201900275	July 12, 2019	llsley Trust et al.	21.70
2000399	June 23, 2006	George Noble	5.06	201900351	September 20, 2019	Odyssey Vineyard LLC	20.40
200601001	June 27,2006	Sage Hill Vineyards – <u>Replant</u>	<u>0.0</u> 15.1	201800275	November 25, 2019	Metamorphosis– Ovid Vineyards	25.60
200601143	August 11, 2006	Kuleto Estates	6.50	201600323	December 4, 2019	Bloodlines, LLC	86.20
200601152	August 17, 2006	Screaming Eagle – <u>Replant</u>	<u>0.0</u> 4.7	201900037	March 11, 2020	Wappo Land Co. Track I ECP	13.10
1992382	November 9, 2006	Sam Gaskins	10.40	201700432	Pending	KJS Sorrento Track I ECP	156.80
2003522	March 8, 2007	Jacquelyn Joy Cordes	24.00	201900144	Pending	Stags Ridge	9.00
200700274	April 26, 2007	Martinez Vineyard – <u>Replant</u>	0.0 3.4	201800106	Pending	Oakville Farms Track I ECP	7.70
200601007	May 31, 2007	Colgin Family Partners	58.20	201900056	Pending	Bevan & DeCrescenzo	15.00
200700360	July 17, 2007	Bryant Vineyards Ltd. – <u>Replant</u>	<u>0.0</u> 6.1	202000205	Pending	Prichard Hill	29.10
200700456	July 24, 2007	Backus Ranch – <u>Replant</u>	0.0 3	201900488	Pending	State Farm Gamble Ranch	8.30
200700508	August 8, 2007	Poetry Vineyard	12.80	202000080	Pending	Antinori California	9.70
2003020	August 10, 2007	Doug Hill	15.60	202000271	Pending	Chappellet Vineyard	41.9
2004086	August 10, 2007	Richard & Marlene Mansfield	8.15	202000305	Pending	Melanson Vineyard	4.1
200800227	April 2, 2008	Diane Miller	<u>0.0</u> 19.9		Total:	2,400.61	

4

O3-8 Cont.

Donald Barrella March 29, 2021 Page 16 of 16

The Draft EIR text located on page 4-8 should be updated to reflect the above acreages as follows. New text is shown in <u>underline</u> and deleted text is shown in strikethrough.

The acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., the 3-mile radius) over the last 27 years (1993–2020) was used to estimate reasonably foreseeable vineyard development for the next three to five years. Over the past 27 years, approximately <u>88.9 acres</u> <u>117 acres</u> of agriculture per year (<u>2,400.61</u>_<u>3,167</u> divided by 27) were developed within the 3-mile radius. Considering Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately <u>267</u> – <u>445 acres</u> 351_<u>585 acres</u> within the 3-mile radius over the next three to five years is considered a reasonable estimate. Napa County Code Chapter 18.108 includes policies that require setbacks of 35–150 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON-24c requires that oak woodland be retained at a 2:1 ratio, which limits the acreage within the 3-mile radius that could be converted to vineyard.

Thank you for your consideration of, and attention to, the above matters.

Sincerely,

a Mardes

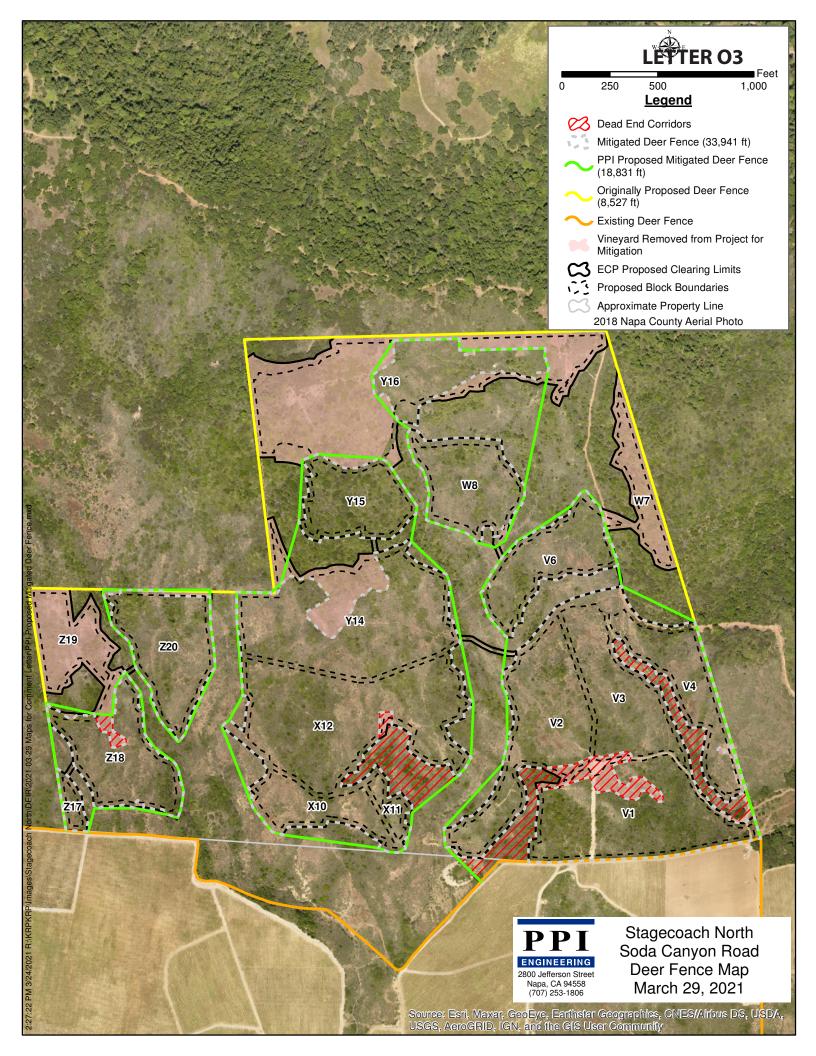
James R. Bushey, P.E. President

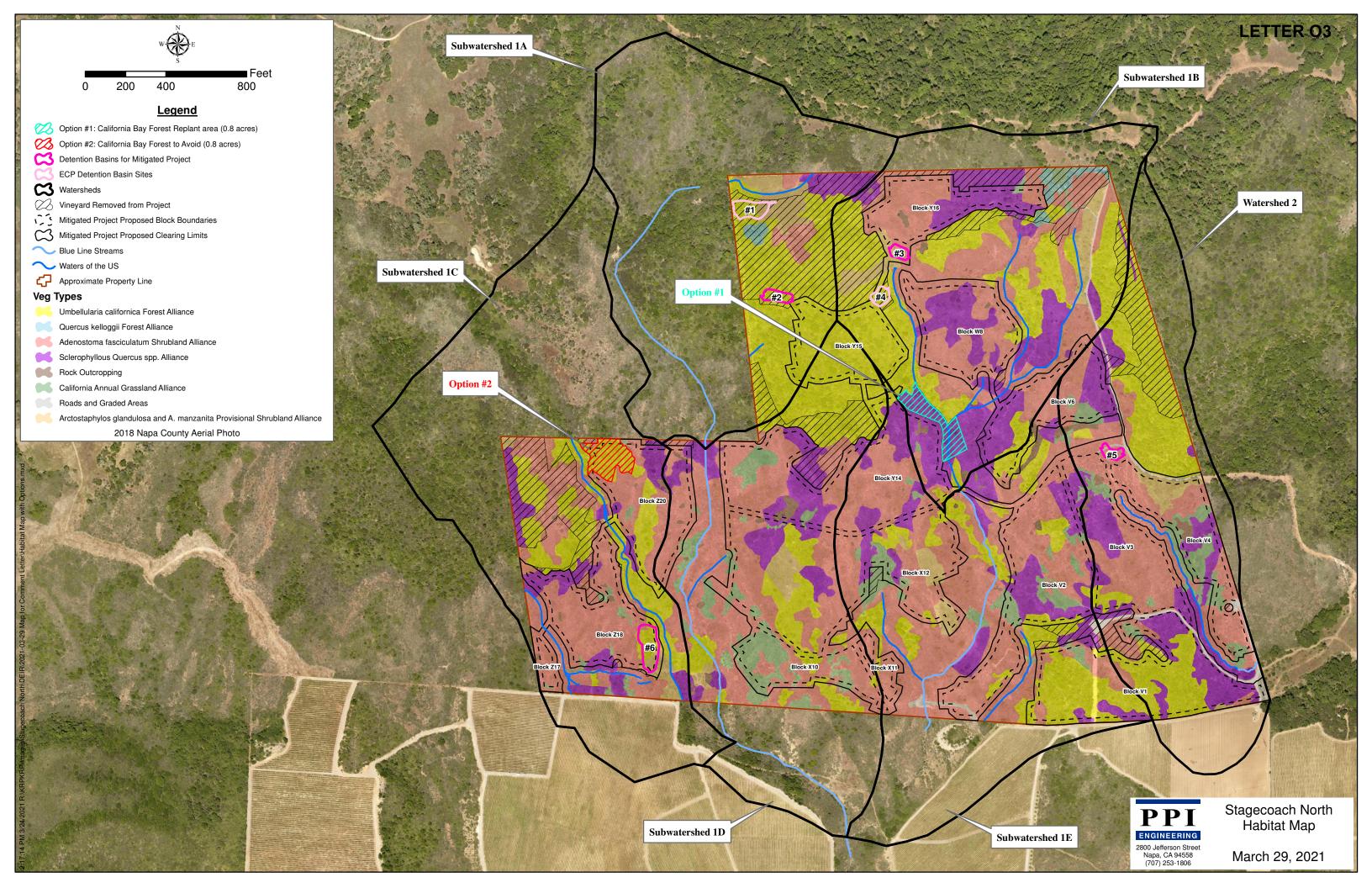
Attachments:

Habitat Map Deer Fence Figure

Annalee Sanborn Project Manager

03-9





Letter O3	PPI Engineering, James R. Bushey, P.E., President, and Annalee Sanborn,
Response	Project Manager
	March 29, 2021

- **O3-1** Napa County thanks PPI Engineering for the Draft EIR comments provided.
- **O3-2** The County thanks the commenter for the suggestions of alternatives to requiring Tier 4 Final construction equipment to reduce oxides of nitrogen (NO_X) emissions below the Bay Area Air Quality Management District (BAAQMD) significance threshold. The Draft EIR's air quality analysis has been revised to account for the smaller footprint of the mitigated proposed project (approximately 91 acres), as described in Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 and noted in Impact 3.2-1, and for the phasing of construction proposed in two phases as described in Draft EIR Mitigation Measure 3.3-1j and as revised in Final EIR Chapter 2, *Revisions to the Draft EIR* and Chapter 4, *Mitigation Monitoring and Reporting Program*, as compared to a single phase originally proposed in the Draft EIR project description. The revised estimates also account for the reduction in the amount of equipment needed to conduct the construction activities and the reduced activity level (hours per day of use) for each piece of equipment based on the reduced construction footprint. The start year for construction was also updated from 2021 to 2022.

Draft EIR Table 3.2-5 has been updated as shown below based on the revised estimates. With the changes listed above, average daily NOx emissions during construction would be less than the BAAQMD threshold of 54 pounds per day. Therefore, the use of construction equipment that meets Tier 4 Final standards as described in Mitigation Measure 3.2-1a would no longer be required and the Draft EIR text has been updated (see Final EIR Chapters 2 and 4).

	Construction Emissions (pounds/day)				
	ROG	NOx	Exhaust PM ₁₀	Exhaust PM _{2.5}	
Project Average—Uncontrolled	8.8	87.7	3.7	3.4	
BAAQMD Threshold	54	54	82	54	
Exceed Threshold?	No	Yes	No	No	
Project Average—Mitigated ¹ with Tier 4 Equipment	<u> 1.8-3.8</u>	7.9 <u>35.5</u>	0.2 <u>1.5</u>	0.2 <u>1.4</u>	
BAAQMD Threshold	54	54	82	54	
Exceed Threshold?	No	No	No	No	

 TABLE 3.2-5

 AVERAGE DAILY CONSTRUCTION EMISSIONS

NOTES: BAAQMD = Bay Area Air Quality Management District; NO_x = oxides of nitrogen; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; PM_{10} = particulate matter measuring 10 microns or less in diameter

¹ Mitigated project includes implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3, *Biological Resources*.

SOURCE: Data compiled by Environmental Science Associates in March 2020 and October 2021 (see Appendix C)

- **O3-3** The GHG emissions estimates have been updated to conservatively account for burning of all vegetation removed from the site. Draft EIR Tables 3.2-8 and 3.2-9 have been updated to reflect this change. The tables also include the updated carbon storage factors available, as explained in Response to Comment O1-12.
- **O3-4** The County is amenable to retaining Detention Basin #2 in Block Y16, covering/ encompassing approximately 0.38 acre, in the mitigated and alternative projects, with the addition of the enhanced area acreage as suggested in the comment (see also Response to Comment O3-6). Draft EIR Figures 3.3-6, 3.3-7, 5-1, and 5-2 have been updated to reflect this change and the vineyard block acreages in Tables 3.3-5b, 5-1b, 5-2, 5-3b, and 5-4 of the Draft EIR have been updated (see Final EIR Chapter 2). No overall change to the mitigated project acreage or habitats affected would occur with this revision.
- **O3-5** The comment about the increase in the total length of the mitigated deer fence is noted. In response, the County has revised the wildlife exclusion layout in Figure 3.3-6, taking into consideration the existing wildlife exclusion fencing located along the southern boundary of the project site. The existing wildlife exclusion fencing shown on Draft EIR Figure 2-4 has also been added to Figure 3.3-6 (see Final EIR Chapter 2). To further protect avoided/undeveloped areas enclosed by wildlife exclusion fencing as a result of mitigation, a new component has been added to Mitigation Measure 3.3-4 (see Final EIR Chapters 2 and 4).
- **O3-6** The comment is correct that the project site contains 50.24 acres of California bay forest and that to be consistent with Policy CON-17, California bay forest habitat should be preserved at a 2:1 acre ratio or greater. This would equal 33.5 acres required for 2:1 preservation (50.24/3 = 16.75; 16.75x2=33.5), not 34.4 acres as stated in the comment.

As stated in Impact 3.3-2, the proposed project would affect 31.63 acres (63 percent) of California bay forest. With implementation of the mitigation measures described in the Draft EIR, the impact area would be reduced to 17.25 acres, and 32.99 acres of California bay forest would be preserved within the 79.68-acre Preservation Area. However, as discussed in Response to Comment O3-4, Detention Basin #2 with an approximate 0.38-acre impact on California bay forest has been added back into the proposed development area, increasing the California bay forest impact area to 17.63 acres and reducing the area preserved to 32.61 acres. Therefore, to achieve preservation of 33.5 acres of California bay forest habitat, 0.89 acre would need to be enhanced (32.61+0.89=33.5), not the 10 acres stated in Mitigation Measure 3.3-2a. Mitigation Measure 3.3-2a has been revised to state that 0.89 acre of California bay forest would be enhanced within the Preservation Area (see Final EIR Chapters 2 and 4).

O3-7 The existing conditions identified in the Draft EIR Biological Resources section (Section 3.3) were based on the conditions present at the time the Notice of Preparation

was published (i.e., October 14, 2019), consistent with the State CEQA Guidelines. Dr. Adrienne Edwards' recommendations in Letter O2 with respect to including additional flexibility for replanting plants proposed for removal after the LNU Fire have been incorporated into Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h (see Responses to Comments O2-4 through O2-6 and Final EIR Chapter 2, *Revisions to the Draft EIR*). Specifically, the four options identified in Comment O2-4 by Dr. Edwards to propagate holly-leaved ceanothus have been added to Mitigation Measure 3.3-1b (see Response to Comment O2-4 and Final EIR Chapters 2 and 4). Mitigation Measure 3.3-1f, related to two-carpellate western flax mitigation, has been revised to incorporate the recommendation in Comment O2-5 by Dr. Edwards to transfer soil containing seeds to the Preservation Area instead of collecting seed and then replanting (see Response to Comment O2-5 and Final EIR Chapters 2 and 4). Mitigation Measure 3.3-1h, related to green monardella mitigation, has been revised to incorporate the recommendations in Comment O2-6 by Dr. Edwards on how the plant is replanted within the Preservation Area (see Response to Comment O2-6 and Final EIR Chapters 2 and 4).

- **O3-8** The data provided in Table 4-1 in Draft EIR Section 4.1, *Cumulative Impacts*, to disclose new vineyard development in the cumulative environment included replanting plans and modifications to ECPAs that added no new vineyard acreage. These replanting plans and modifications were inadvertently not removed from the cumulative environment accounting; this resulted in an overly conservative total of vineyard development in the cumulative environment. The table has been revised in Final EIR Chapter 2, *Revisions to the Draft EIR*, to exclude replanting plans and ECPA modifications that did not add new vineyard, providing a more accurate account of new vineyard development post-1993; this data and associated corrections were corroborated in conjunction with Napa County GIS Division analysis.
- **O3-9** The Draft EIR text on page 4-8 has been updated based on the revisions noted in Response to Comment O3-8.
- **O3-10** Napa County thanks PPI Engineering for the Draft EIR comments provided.



RICHARD C. SLADE & ASSOCIATES LLC

CONSULTING GROUNDWATER GEOLOGISTS

March 29, 2021

MEMORANDUM

To: Donald Barrella Planner III Napa County Department of Planning, Building and Environmental Services 1195 Third Street, Second Floor Napa, California Sent via email (donald.barrella@countyofnapa.org)

From: Anthony Hicke, CHG Richard C. Slade & Associates LLC

Job No. 217-NPA08

Re: Review of Draft Environmental Impact Report (DEIR) State Clearinghouse #2019100 Stagecoach North Vineyard Conversion Erosion Control Plan (ECP) Application #P18-00446-ECPA Stagecoach Vineyards Soda Canyon Area, Napa County, California Prepared by ESA, dated February 2021

Provided herein are comments related to the Draft Environmental Impact Report (DEIR), State Clearinghouse #2019100, for the Stagecoach North Vineyard Conversion, Erosion Control Plan (ECP) Application #P18-00446-ECP. Comments provided herein are related to the Geology and hydrogeology sections of the subject DEIR.

Statement of Qualifications

Comments presented herein were prepared under the direction of Anthony Hicke, Certified Hydrogeologist in the State of California, and Senior Groundwater Geologist with RCS. Mr. Hicke has been working with RCS on hydrogeology-related on projects in Napa County for nearly 20 years. Mr. Hicke has served as project manager and hydrogeologist of record for multiple projects in the Rector Watershed, including prior work for the Stagecoach Vineyard property (when under previous ownership). For the subject Stagecoach North Vineyard Conversion project, Mr. Hicke directed the pumping tests and analyses necessary to prepare the Appendix J "Water Availability Analysis" (RCS, 2018). Further, RCS has provided services to Gallo (and the prior property owners) associated with the Stagecoach Vineyards Erosion Control Plan Project FEIR Mitigation Measure 4.6-4; the Appendix K Memorandum (RCS, 2020) included as part of the subject DEIR is the result of that work.

2



Review of Stagecoach North DEIR ECP #P18-00446-ECPA Stagecoach Vineyards Soda Canyon Area, Napa County, California

MEMORANDUM

DEIR Comments

RCS has reviewed the subject DEIR for the Stagecoach North ECP, and provides the following comments:

- 1. The Appendix J RCS WAA is marked Draft. Although a "Final" version of the document was not requested from RCS prior to preparation of the DEIR, RCS supports the information provided in the DRAFT, and considers the information, interpretations, and conclusions provided therein as a "Final" draft.
- 2. Page 3.5.-1, second Paragraph under 3.5.1 The geologic description of the Stagecoach North property is confusing and/or incorrectly stated; the DEIR may have misstated text from Page 2 of the Appendix G, Gilpin Geoscience report. The site is directly underlain by the Sonoma Volcanics, not the Franciscan Formation as suggested in the text. The site is underlain <u>at depth</u> by the Franciscan Formation, which lies <u>below</u> the Sonoma Volcanics. Also, the statement "Overlying the Franciscan Complex are Tertiary and Quaternary sedimentary rocks", should read "volcanic rocks" instead of sedimentary rocks.
- Page 3.7-2, second paragraph "The Rector watershed is surrounded by steep mountains that drain through alluvial fans, then across a small plateau before draining into Rector Canyon." Neither the RCS WAA nor the Gilpin Geosciences report discusses alluvial fans. Further, there is very little alluvium shown on the referenced Geologic maps. A more appropriate description might be that "The Rector watershed is defined by relatively steep mountains that drain through <u>ephemeral creeks and drainages</u>..."
- 4. Page 3.7-2, third paragraph the text states that "Rector Reservoir fills up every year, even in dry years when the area receives less than 26 inches of rainfall" and the statement is attributed to RCS. The actual quote from the RCS Appendix J WAA is "even in dry years when precipitation is less than 26 inches, the reservoir is <u>expected</u> to fill." While the difference is nuanced, the comment from the RCS report is a direct quote from a referenced source. It may be advisable to attribute the statement, as RCS did, to RTR 2009 (Ridge to River Incorporated Environmental Services, July 10, 2009. Rector Creek Reservoir Watershed Sanitary Survey, 2009 Update, prepared for Veterans Home of California and Rector Reservoir Surface Water Treatment Facility, California Department of Health Services Drinking Water Division.)
- 5. Page 3.7-8, second and third paragraphs. It is unclear why the North Napa Valley Groundwater Basin is discussed at all, and why the well yields for well located along the Napa Valley Floor are referenced. The Stagecoach North property is not on the floor of Napa Valley, nor is it within the groundwater basin.
- 6. Page 3.7-8, last full paragraph. The text should probably also inform the reader that the Appendix K monitoring memo was prepared in compliance with the prior Stagecoach

04-2

04-4

Review of Stagecoach North DEIR ECP #P18-00446-ECPA Stagecoach Vineyards Soda Canyon Area, Napa County, California

MEMORANDUM

MEMORANDUM					
	Vineyards Erosion Control Plan Project FEIR Mitigation Measure 4.6-4 (this is noted in the Appendix K monitoring memo).	O4-7 Cont.			
7.	Page 3.7-8, last full paragraph – "The [RCS Appendix K] memorandum notes that reported groundwater production was likely underestimated because of errors and inconsistencies in the records predating 2015." The way this sentence reads may be misleading. Groundwater production data reported for years prior to 2015 may be underestimated; post-2015 data are reliable.	04-8			
8.	Page 3.7-25, second paragraph – It is unclear why the document includes references to the stability of water levels in the Napa Valley Floor areas. The Stagecoach North property is not on the floor of Napa Valley, nor is it within the groundwater basin.	04-9			
9.	Page 3.7-26 – the recharge volume is shown as 84.1 AF/yr. While this value is discussed by RCS in the Appendix J WAA on page 14, in the paragraphs following the 84.1 AF/yr estimate, a value of 69.3 AF/yr is presented as report as a "slightly more site specific estimate" of recharge. This 69.3 AF/yr estimate is also repeated in the conclusions of Appendix J, and should be used in the DEIR text instead of the 84.1 AF/yr value.	04-10			
10	. Page 3.7-27. "The anticipated annual water use by the proposed project is below the project site's anticipated annual groundwater recharge rate." This sentence should discuss the <u>average</u> annual groundwater recharge rate.	04-11			
11	. Page 3.7-28 "interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin." The Stagecoach North project site is not located within a groundwater basin.	04-12			
12	Page 4-15, second paragraph. Recharge volume is shown as 84.1 AF/yr, but should reference 69.3 AF/yr, similar to RCS Comment 9, above.	04-13			
13	Page 4-15, second paragraph – "The Water Availability Analysis demonstrates that under the worst-case scenario (maximum groundwater pumping for the maximum amount of vineyard planting proposed), groundwater recharge would be adequate to meet project demand." This section may be referring to the Cumulative Impact Analysis in RCS Appendix J, but the text is unclear because it mentions "project demand" and not "Cumulative Impact Area" demand. As written, the text seems to reference the site specific calculations of recharge; if the intent is to reference the Cumulative Impact Analysis, the discussion should reference pages 22 and 23 of the RCS Appendix J WAA, and probably more specifically describe the Cumulative Impact Area calculations by RCS.	04-14			

K

3

Letter O4Richard C. Slade & Associates LLC, Anthony Hicke, CHGResponseMarch 29, 2021

- **O4-1** The qualifications of the commenter are noted.
- **O4-2** The comment states that the information, interpretations, and conclusions provided in Draft EIR Appendix J, *Water Availability Analysis,* are considered a "Final" draft. The comment is noted.
- **O4-3** The comment is noted. The second paragraph on page 3.5-1 of the Draft EIR has been edited in response to the comment (see Final EIR Chapter 2, *Revisions to the Draft EIR*).
- **O4-4** The comment is noted. The second paragraph on page 3.7-2 of the Draft EIR has been edited in response to the comment (see Final EIR Chapter 2).
- **O4-5** The comment is noted. The third paragraph on page 3.7-2 of the Draft EIR has been edited in response to the comment (see Final EIR Chapter 2).
- **O4-6** The North Napa Valley Basin was referenced in the second paragraph on page 3.7-8 of the Draft EIR because flows in Rector Creek may recharge the North Napa Valley Basin. However, given the differing geology and the distance between the North Napa Valley Basin and the project site, these areas are not hydraulically connected, and the text has been removed from the Draft EIR (see Final EIR Chapter 2).
- **O4-7** The comment is noted. A footnote has been added to the last full paragraph on page 3.7-8 of the Draft EIR in response to the comment (see Final EIR Chapter 2).
- **O4-8** The comment is noted. No change has been made to the Draft EIR text in response to the comment.
- **O4-9** The comment is noted. The second paragraph on page 3.7-25 of the Draft EIR has been removed (see Final EIR Chapter 2).
- **O4-10** The comment is noted. The first paragraph on page 3.7-26 of the Draft EIR has been edited to use the more conservative 69.3 acre-feet per year of average annual groundwater recharge instead of 84.1 acre-feet per year, and to use a recharge rate of 14 percent instead of 17 percent (see Final EIR Chapter 2).
- **O4-11** The comment is noted. The last paragraph on page 3.7-27 of the Draft EIR has been edited to include the word "average" before referring to the annual groundwater recharge rate (see Final EIR Chapter 2).

- **O4-12** The comment that the Stagecoach North project site is not located within a groundwater basin is noted and is stated on Draft EIR page 3.7-8. The text quoted in the comment from page 3.7-28 was reiterating text from the checklist question in Appendix G of the State CEQA Guidelines related to management of the groundwater basin: "Construction and operation of the proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin." No Draft EIR text has been made in response to the comment.
- **O4-13** The comment is noted. The second paragraph on page 4-15 of the Draft EIR has been edited to use the more conservative 69.3 acre-feet per year of average annual groundwater recharge instead of 84.1 acre-feet per year (see Final EIR Chapter 2).
- **O4-14** The comment is noted. The second paragraph on page 4-15 of the Draft EIR has been edited in response to the comment (see Final EIR Chapter 2).



E&J. Gallo Winery

March 29, 2021

Donald Barrella Napa County Planning, Building & Environmental Services 1195 Third Street, Room 210 Napa, CA 94559

Via email: Donald.Barrella@CountyofNapa.org

RE: Draft Environmental Impact Report (EIR) for Stagecoach North Erosion Control Plan (ECP) #P18-00446-ECPA

Dear Mr. Barrella:

E. & J. Gallo Winery and Gallo Vineyards, Inc. (collectively, "Gallo") submit these comments to the draft Environmental Impact Report ("Draft EIR") for Gallo's Stagecoach Vineyard North Erosion Control Plan ("Project"). Thank you for the opportunity to comment on the Draft EIR.

Since its founding Gallo has been a leader in sustainable farming practices and believes that our Project's goals embrace this legacy. The Project and supporting studies incorporate sustainable practices. It expands upon an existing 604-acre vineyard by 91.3 acres on the 1,333-acre Stagecoach property utilizing existing equipment and workers thereby avoiding impacts of bringing in new equipment and workers and other environmental impacts associated with an entirely new vineyard operation. With the 91-acre vineyard addition only 52% of the Stagecoach property will be in vineyard, with much of the ranch permanently preserved as open space, consistent with the Gallo family's commitment to preserving a significant portion of Gallo's coastal properties in open space.

The Draft EIR appropriately imposes measures that mitigate the impacts of the Project consistent with our sustainable farming practices. However, we believe the following Draft EIR mitigation measures go beyond those required to mitigate impacts, conflict with past County practices and the County's General Plan, and jeopardize the economic viability of the vineyard: The significant reduction in the vineyard acreage of the project; the long 5 year phasing of vineyard development; and the requirement that Gallo procure and transport new equipment to Stagecoach rather than utilize existing on site equipment. We respectfully request that our expanded vineyard remain 91.3 planted acres, that our planting be allowed over a 3 year period with all native plants planted in year one in full mitigation of project impacts with the customary monitoring requirements, and that Gallo be allowed to use its existing equipment for the expanded vineyard. We also ask for clarification that we will have access to the existing wells



E&J. Gallo Winery

05-2 to irrigate the vineyard, which the Draft EIR indicates will be included within the area to be subject to a conservation easement. Cont. Project Objectives The project objectives are to: 1. Expand the existing vineyard by 91.3 net acres within a 116-acre project footprint on those portions of the 1333-acre Stagecoach property that are suitable for the cultivation of high-quality wine grapes. 2. Expand vineyard production on an actively farmed property while ensuring the sustainability of farming operations. 3. Minimize soil erosion from vineyard development and operation through vineyard design that avoids erosion-prone areas and controls erosion within the vineyard rather than capturing soil after it has been displaced. 4. Minimize changes to hydrology from vineyard development. 5. Farm vineyards in a sustainable manner that includes the use of integrated pest 05-3 management practices and participation in the Napa Sustainable Winegrowing Group and California Sustainable Winegrowing Alliance. 6. Protect water quality by protecting streams and drainages to the maximum extent feasible through avoidance, incorporation of appropriate setbacks, and implementation of various erosion control features. 7. Minimize impacts on rare, endangered, and candidate plant and animal species to the extent feasible, while providing for avoidance, preservation, and replacement in accordance with accepted protocols, including but not limited to those set forth in the Napa County General Plan. 8. Use water from existing and proposed water resources efficiently through precision irrigation (drip irrigation, weather stations). 9. Maximize the use of current vineyard employees' skills and equipment to minimize impacts and create efficiencies. 10. Provide additional employment and economic development in Napa County. I. Proposed Mitigation Measures Reducing the Vineyard Acres are Inconsistent with the 2008 Napa County General Plan The Draft EIR selectively and inappropriately emphasizes the Conservation section of the General Plan to justify significant reductions in project size without informing the County and stakeholders of the General Plan policies aimed at protecting and expanding agriculture in Napa County. There are 114 General Plan policies in the Agriculture/Land Use Element of the 05-4 General Plan, but the Draft EIR only mentions three of them. The Napa General Plan includes the following goals and policies pertaining to agriculture in Napa County (emphasis added):

Goal AG/LU-1: Preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County.



E&J Gallo Winery

Goal AG/LU-3: <u>Support the economic viability of agriculture, including grape growing,</u> winemaking, other types of agriculture, and supporting industries to ensure the preservation of agricultural lands.

Policy AG/LU-1: Agriculture and related activities are the <u>primary land uses</u> in Napa County.

Policy AG/LU-4: The County <u>will reserve agricultural lands for agricultural use</u> including lands used for grazing and watershed/open space, except for those lands which are shown on the Land Use Map as planned for urban development.

Policy AG/LU-7: The County will research, evaluate, and pursue new approaches to ensure ever stronger protections for the County's finite and irreplaceable agricultural resources. Approaches to be evaluated shall include implementation of a "Super Williamson Act" program, a conservation easement program or other permanent protections, and programs promoting the economic viability of agriculture.

Policy AG/LU-8: The County's minimum agricultural parcel sizes shall ensure that agricultural areas can be maintained as economic units.

Policy AG/LU-20: The following standards shall apply to lands designated as Agriculture, Watershed, and Open Space on the Land Use Map of this General Plan. **Intent:** To provide areas where the predominant use is agriculturally oriented; where watersheds are protected and enhanced; where reservoirs, floodplain tributaries, geologic hazards, soil conditions, and other constraints make the land relatively unsuitable for urban development; where urban development would adversely impact all such uses; and where the protection of agriculture, watersheds, and floodplain tributaries from fire, pollution, and erosion is essential to the general health, safety, and welfare. **General Uses:** <u>Agriculture</u>, processing of agricultural products, single-family dwellings.

Section 3.8 of the Draft EIR mentions only three of the above agriculture policies, and then analyzes the Project for consistency with *twenty-nine* (29) policies from the Conservation Element along with three circulation (traffic) policies and four safety policies.

Impact 3.8-1 states that the "proposed vineyard is consistent with the project site's General Plan designation of AWOS because agriculture is an allowable use. The proposed project is also consistent with the project site's AW zoning designation because agriculture is one of the uses allowed in AW districts without a use permit." While the Draft EIR correctly states that the vineyard project is consistent with the property's General Plan designation and zoning, it then sets forth mitigation measures that minimize the amount of agriculture that would be allowed on the property. This is inconsistent with the first goal in the General Plan that identifies agriculture as the primary land use in Napa County.

O5-4 Cont.



E&J. Gallo Winery

General Plans, by their nature, include policies and goals that address a range of issues, and these policies and goals require decision-makers to consider and balance these competing policies and goals in the context of a specific proposal. One of the purposes of an EIR is to ensure that decision makers are informed about these trade-offs. EIRs do not, however, trump General Plan goals or policies. They ought not to treat one set of goals or policies as more important than another. That is particularly true where, as here, the policies and goals at issue all involve matters that are relevant to CEQA analysis. Both biological resources and agriculture are considered environmental resources worthy of consideration under CEQA. In this case, however, the EIR appears to treat policies directed at biological resources as somehow more exalted than those directed at agricultural resources. The EIR should acknowledge that both resources are worthy of consideration by decisionmakers and that decision-makers should give weight to all General Plan policies, including the 114 policies set forth in the Agricultural Element of the General Plan.

II. Vineyard Acreage of the Project should be Maintained

The project as originally proposed and as stated in Project Objective #1 is to develop 91.3 net acres of vineyards within 116.2 gross acres cleared. After mitigation found in the Draft EIR, the Draft EIR states that the Project would be reduced to 69.0 net planted acres within 90.5 gross acres. This actually overstates the final net plantable acreage as it does not account for infrastructure such as detention basins, ditches, and other infrastructure that must be designed within the clearing limits to ensure no-net-increase in runoff. Three of the five original detention basin locations have been removed from the Project due to mitigations and alternate locations for these basins or other runoff attenuation strategies will need to be identified. The basins will be seeded with grasses and cause no adverse environmental impacts.

The estimated decrease in cleared area from 116.2 gross acres to 90.5 acres represents a decrease of 22% of the project size. If the Increased Preservation Area Alternative were adopted, the Project would decrease to 84.2 gross acres, a 27.5% decrease in area. We believe that the 91.3 net acres of vineyard development project within 116.2 acres of the 1,333 acre Stagecoach property includes protections to the environment, and that the Draft EIR fails to identify how the reduction in acreage is required to address unmitigated project impacts. The Draft EIR also fails to consider additional measures in lieu of reducing vineyard acres that would promote the economic viability of the Project and would be consistent with the General Plan agricultural policies (see below).

While the entirety of the vineyard acreage reduction is not required to mitigate impacts, it does significantly increase the costs of the project, contrary to the General Plan policy to encourage agriculture. Many of the costs of developing vineyard are fixed, as are the costs of implementing the mitigation measures in the Draft EIR, meaning that the per-acre cost of development of the Mitigated Project is much higher than the original proposed Project.

We agree with and support the need to protect wildlife, habitats, and open space, consistent with Gallo's goal of preserving significant portions of our ranches as open space. However, we

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E&J. Gallo Winery

believe and suggest alternate mitigation measures that would protect these resources while encouraging agricultural viability consistent with the County General Plan. These measures include: 1) allowing permanent conservation easements on nearby property; 2) choosing areas for avoidance that have multiple overlapping sensitive species; and 3) allowing higher levels of mitigation replanting for the plant species that are known to propagate well, including hollyleaved ceanothus, narrow-anthered California brodiaea, nodding harmonia, Franciscan onion, and Napa lomatium.

We request that the County amend Figure 3.3-6 and Mitigation Measures 3.3-1a through 3.3-1i as necessary to allow higher levels of impact in the northern portions of Block Z18, northern portions of Block Y14, and eastern portion of Block Y16, and increase the mitigation replanting ratios as appropriate.

III. The Project Should be Able to Utilize Onsite Equipment

Project Objective #2 is to "expand vineyard production on an actively farmed property while ensuring the sustainability of farming operations" and Objective #9 is to "maximize the use of current vineyard employees' skills and create efficiencies." These Project objectives advance both the environmental sustainability and economic viability of the Project by drawing from the resources available to us from our existing 603-acre farming operations on the Stagecoach property. Those resources range from the expertise of our crew familiar with farming vineyards in this area to the equipment we own and operate that is available on the property. Unfortunately, the Draft EIR did not consider and evaluate the environmental and economic value of those resources.

Over the years Gallo has responded to our neighbors' concerns regarding increasing safety and reducing traffic on Soda Canyon Road. The Project was designed to address those concerns by utilizing existing workers and vineyard expertise, requiring worker carpooling and utilizing heavy equipment that is already located onsite to minimize transporting heavy equipment on Soda Canyon Road. The Draft EIR's mitigation measure requiring the exclusive use of new Tier 4 construction equipment fails to consider the emissions, traffic and safety impacts of transporting additional equipment to the property rather than using the existing heavy equipment available to us on the Stagecoach property.

Furthermore, requiring only Tier 4 construction equipment is not a feasible mitigation measure because agricultural contractors do not have a sufficient supply of such equipment. Gallo has been working diligently to upgrade its construction equipment to newer Tier 4 machinery but have been unable to do so. To our knowledge, none of the other agricultural contractors in the Napa Valley area have a full fleet of Tier 4 equipment. Although it may be feasible to procure one piece of Tier 4 machinery using outside contractors, Mitigation Measure 3.2-1a would require all construction equipment used on the property to be Tier 4. This is simply not available to us and is therefore infeasible.

O5-7 Cont.

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Furthermore, we understand that the air quality modeling assumed a single construction phase and did not take into account the construction phasing over time. We were also not consulted on the number and type of equipment required for the project after mitigation. The air quality model needs to take into account phasing and accurate construction equipment counts and accurately quantify the impacts.	05-10
We request that the draft EIR remove the requirement that only Tier 4 construction equipment be used because it is based on an overstatement of air quality impacts, it is not feasible and does not consider the environmental impacts of bringing new equipment on site.	05-11
IV. Project Phasing Should be Reasonable	T
Mitigation Measure 3.3-1j requires that the Project construction occur in two phases with a minimum 5-year gap between phases and only allows construction of the second phase to commence after the mitigation replantings have been "successfully established". The mitigation measure states that it is intended to ensure all biological mitigations are fully implemented and successful before allowing additional land clearing. However, this measure places an unprecedented and undue burden on the Project.	05-12
This measure would require the project to carry the burden of 100% of the cost of the mitigation replantings up-front with a significant delay of a minimum of 5 years before initiating the remaining vineyard planting. It can take 3-4 years before the vines are mature enough to produce fruit, so this mitigation measure requires that the Project incurs all mitigation costs in Year 1 with incomplete project return until at least Year 8. The mitigation measure is not feasible.	
Furthermore, the Draft EIR does not explain why the standard success criteria used in past similar projects would not be sufficient to mitigate impacts. All special-status plant populations that are replanted must meet the success criteria listed in their respective mitigation measures. For Mitigation Measure 3.3-1b (holly-leaved ceanothus), Mitigation Measure 3.3-1f (two-carpellate western flax), and Mitigation Measure 3.3-1h (green monardella), a biologist shall identify replanting areas, techniques to replant each species, monitor the replanted species annually for five years, prepare written reports to Napa County each year, and the success criteria must meet 80% survival after 5 years. If the success criteria is not met, further actions that must occur would include additional replanting and monitoring until the 80% success criteria is met. Therefore, Mitigation Measure 3.3-1j is not necessary because the species must meet 80% survival in any event.	05-13
 In no other recent Napa County projects has this burden been placed on the Applicant, including: Bloodlines EIR (#P16-00323-ECPA), Walt Ranch EIR (#P11-00205-ECPA), Circle S EIR (#P06-01508-ECPA), Suscol Mountain EIR (#P09-00176-ECPA), Metamorphosis Wines LLC Initial Study (#P18-00275-ECPA), and 	•



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• Stagecoach Infill Development EIR (#P06-0042-ECPA).

While some of these projects were mitigating for different plant species, many of them were the same species located on the Stagecoach North property. In all of the above-referenced projects approved by Napa County, the methods for mitigating impacts to sensitive plants included some combination of avoidance, mitigation replanting, enhancement or management of existing onsite populations, and preservation. None of them included phasing in anticipation of future mitigation failure.

It is standard practice in other jurisdictions in California to include measures where the impact is mitigated and then monitored for a number of years, then additional mitigation is provided if any of the mitigation does not succeed. This has been the practice in Napa County as well as the standard imposed by other State and federal agencies, including U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and the Regional Water Quality Control Boards.

CEQA does not require advance mitigation of impacts and does not require mitigation for effects which are not significant (CEQA *Guidelines* §15126.4(a)(3). Speculation of future replant failure does not constitute a significant impact, particularly when it is well known that propagation and transplanting for these species works.^{1, 2} Adaptive management ensures that mitigation plans take into account changing conditions over time. The vast majority of the plant populations would remain on the property after mitigation-required avoidance, so even if supplemental replanting is required there will be sufficient plant populations to draw from without phasing.

Therefore, we ask that Mitigation Measure 3.3-1j be deleted because the other mitigation measures appropriately include provisions to increase the replanting to offset any plant mortality that might occur. We note that Mitigation Measure 3.3-1b (holly-leaved ceanothus), Mitigation Measure 3.3-1f (two-carpellate western flax), and Mitigation Measure 3.3-1h (green monardella) could each be revised to state that additional replanting shall be required up to the 80% success criteria in any year it is not found to be successful.

While the other mitigation measures regarding replanting are sufficient without requiring a delay of 5 years to plant the remaining vineyard, if phasing is deemed necessary, we suggest the following alternative Three Phase schedule. In Year 1, approximately one-third of the land be allowed to be cleared and 100% of the mitigation replanting for the entire project be completed. Gallo will enter into a 5-year mitigation monitoring contract with a qualified biologist in Year 1. In Year 2, the next one-third of vineyard area be allowed to be cleared. Annual monitoring of the mitigation replantings continues. In Year 3, the remaining vineyard area is cleared for development. Annual monitoring of the mitigation replantings continues annually for 5 years or until all success criteria have been met.

05-13

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05-14

¹ Analytical Environmental Services (AES), 2008. Hollyleaf Ceanothus Replanting Plan for Stagecoach Vineyards. Sacramento, California.

² AES, 2016. Biological Resources Management Plan for Walt Ranch Erosion Control Plan #P11-00205-ECPA. Sacramento, California.



V. Preservation Area Should Provide Access to Existing Water Supply Sources

The mitigation measures need to clarify that we can gain access and operate our existing groundwater supply wells. The avoidance and preservation shown in Figure 3.3-6 and reinforced by Mitigation Measures 3.3-1a, 3.3-1e, and 3.3-1f call for the two existing groundwater wells and roads leading to them to be placed into a conservation easement. Project Objective #8 is to "use water from existing and proposed water resources efficiently," which are required for the vineyard. The Draft EIR should be revised to clarify that we can access our existing groundwater wells consistent with the fundamental Project objective to ensure water is available for the new vineyard.

Many special-status plants in Napa County require disturbance of established habitats to provide openings in canopy and allow for germination and establishment. Developing and providing access to the two wells on the property likely allowed the establishment of the plants located around the wells. These plants have grown and thrived near the wells in their current condition and are therefore compatible with maintenance and use of this critical infrastructure. Even if the proposed vineyard surrounding the wells is not allowed to be developed, the area of the well and access road should be outside the area encumbered with a conservation easement, or the use, maintenance, repair and access to the wells should be allowed under any conservation easement that might be required. Also, this area could be included in the annual monitoring that will already be conducted by a biologist. We could manage the area in accordance with recommendation by that biologist to ensure the canopy remained open and the species persisted.

Thank you in advance for your consideration of our comments.

Sincerely, te Buch

Jake Bricker Engineering Manager E&J Gallo Winery

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Letter O5E&J Gallo Winery, Jake Bricker, Engineering ManagerResponseMarch 29, 2021

- **O5-1** The comment states that Gallo practices sustainable farming and is committed to open space preservation, and states that the proposed project would use existing equipment and workers from an adjacent vineyard to avoid effects from bringing in new equipment and workers. The comment is noted.
- **O5-2** The commenter's beliefs that the Draft EIR's mitigation measures go beyond those required to mitigate impacts, conflict with past County practices and the Napa County General Plan (General Plan), and jeopardize the economic viability of the vineyard are noted. As stated below in Responses to Comments O5-12 and O5-15, Mitigation Measure 3.3-1j has been revised to allow development of the project in two phases with a maximum of 75 gross acres in Phase 1, and with Phase 1 being designed to avoid removal of any two-carpellate western flax or green monardella (see Final EIR Chapter 2, *Revisions to the Draft EIR* and Chapter 4, *Mitigation Monitoring and Reporting Program*). See Response to Comment O5-16 regarding access to existing groundwater supply wells within the project site.
- **O5-3** The commenter's list of the project objectives is noted. Project objectives consistent with the commenter's list were also disclosed in the Draft EIR (*Executive Summary*, pages ES-1 and ES-2, and Chapter 2, *Project Description*, pages 2-6 and 2-7). The range of net vineyard acreage in the Draft EIR project objectives includes the range of acreage that would result with implementation of the biological resources mitigation measures identified in the Draft EIR (Table 3.3-5a), which are the only mitigation measures in the Draft EIR that would reduce the vineyard acreage of the proposed project.
- **O5-4** The Napa County General Plan is the official policy statement of the County Board of Supervisors, serving as a broad framework for planning the future of Napa County and guiding the county's private and public development (General Plan Introduction, page I-2). The goals, policies, and implementation actions of the General Plan are collectively intended to achieve this community vision and guide future decisions related to land use and development.

Through its General Plan land use designations and zoning district designations, the County has reserved significantly more than 90 percent of the land in the county for agricultural use as an allowed use (i.e., not a conditional use needing a use permit), consistent with those goals and policies. Through these actions, the County has historically maintained, and will continue to maintain, agriculture as the highest and best use.

As such, the commenter is correct that Napa County through its land use policies has led the nation in innovative agricultural preservation strategies, and it is the County's intent to remain a leader in moderating and directing growth in ways that minimize resource consumption and make unincorporated Napa County a sustainable rural community (General Plan Summary and Vision, pages SV-1 and SV-2).

The County's long history of agricultural preservation and land use planning makes the Agricultural Preservation and Land Use Element a critically important element of the General Plan (Agricultural Preservation and Land Use Element, page AG/LU-3). This element contains goals and policies not only related to agricultural preservation, but also specific to all the other land uses in the county, such as: Industrial, Rural and Urban Residential, Commercial, Mixed-Use, Public-Institutional, Specific Geographic Areas of the County, and Study Areas. It also addresses a wide range of other land use issues, among them the following: Measure J and Measure P, Urban-Centered Growth, Social Equity and Environmental Justice, Interagency Cooperation, Growth Management, and Schools and Churches.

There are seven Goals and more than 136 policies in the Agricultural Preservation and Land Use Element specifically associated with agricultural preservation.

With respect to the applicability of the Conservation Element, the Agricultural Preservation and Land Use Element specifically points to the Conservation Element for additional policies regarding conservation of natural areas: "For additional policies regarding conservation of natural areas, open space, and recreational uses, see the Conservation and Recreation and Open Space Elements" (Agricultural Preservation and Land Use Element, page AG/LU-3). See the additional discussion of the Recreation and Open Space Element later in this response.

Importantly, the Conservation Element provides goals, policies, and action items related to open space conservation and a wide range of other topics that together compose the natural environment of Napa County, including its natural resources and water resources. The goals, policies, and action items in the Conservation Element consider the cumulative effects of development described in the Agricultural Preservation and Land Use Element by incorporating feasible mitigation measures from the EIR associated with the 2005–2008 General Plan Update, and articulate when future development projects will be required to assess and mitigate project-specific impacts (Conservation Element, page CON-1).

Furthermore, Napa County's Conservation Regulations, approved by the Board of Supervisors in 1991, established procedures for review of projects that might have an effect on water quality or other natural resources issues and are intended to balance the desires for environmental and agricultural sustainability (General Plan Conservation Element, page CON-3).

Therefore, the Draft EIR does not treat or otherwise utilize applicable Conservation Element policies with more weight or credence. It appropriately utilizes those policies, as prescribed in the General Plan, to assess and consider the effects of development envisioned and allowed for in the Agricultural Preservation and Land Use Element, and calls for implementation of mitigation measures to reduce potentially significant impacts to a less-than-significant level.

With respect to "Open Space" within the County's and property's Agriculture, Watershed, and Open Space land use designation, the Recreation and Open Space Element highlights that Napa County is blessed with an extensive landscape of open spaces that are integral to the quality of life and economic vitality of Napa County and its residents. The Recreation and Open Space Element also defines what is meant by *open space*, recognizing the other uses of open space as discussed in the Agricultural Preservation and Land Use Element, and the Conservation Element (General Plan Recreation and Open Space Element, page ROS-1):

The term "open space" as used in Napa County does not denote a single land use, nor is it a designation for empty, unused, or not-yet-developed places. Rather, open space is best understood as lands that support an array of activities and amenities, both measurable and intangible, which both derive from and directly depend on the land's sustainable natural resources.

The Recreation and Open Space Element (page ROS-3) identifies that other open space benefits include the preservation of natural resources, the managed production of resources and agricultural lands, the recharge of groundwater supplies, and protection of public health and safety, as outlined below:

- Open space facilitates a healthy agricultural economy which complements and supports growth focused on urban areas. These open space benefits are addressed primarily in the Agricultural Preservation and Land Use Element.
- Large, connected open space areas allow for a range of natural communities that offer habitat necessary to sustain wildlife and plant biodiversity. These open space benefits are addressed primarily in the Conservation Element, which contains policies and actions intended to conserve open space lands that contain important natural resources.
- Open spaces supporting healthy plant communities are essential to the quality and adequate supply of surface and ground waters needed by native plants and animals, by agriculture, and by people. These open space benefits are addressed primarily in the Conservation Element, which contains policies and actions intended to conserve watershed health.

As indicated, although the Draft EIR does not give more weight or credence to applicable Conservation Element policies, the County recognizes the interplay and

consistency between different elements such as Agricultural Preservation and Land Use, Conservation, and Open Space, as noted above. Therefore, inconsistency with applicable Conservation Element policies could result in inconsistency with the Recreation and Open Space Element.¹

Lastly, because policies in the General Plan reflect a range of competing interests, the decision makers are allowed to weigh and balance the plan's policies when applying them, and they have broad discretion to construe the policies in light of the plan's purposes. Balance does not require equivalence, but rather a weighing of pros and cons to achieve an acceptable mix (General Plan Introduction, page I-2). It will ultimately be up to the County decision-maker to weigh and balance the General Plan policies and determine whether overall the project is consistent.

- **O5-5** As stated in Response to Comment O3-4, the County is amenable to retaining Detention Basin #2 in proposed Block Y16, covering/encompassing approximately 0.4 acre, in the mitigated and alternative projects, with the addition of the enhanced area acreage discussed in Response to Comment O3-6. This acreage has been added back in to the proposed project and Mitigation Measure 3.3-2a was revised (see Final EIR Chapters 2 and 4).
- **O5-6** The project site assessed in the Draft EIR for the proposed project was the 170.2-acre Stagecoach North Soda Canyon Ranch parcel (Assessor's Parcel Number 032-560-034), not the 1,333-acre property owned by Stagecoach and noted in the comment. Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage of the proposed project) were identified specifically to avoid or reduce impacts on biological resources from the proposed project to less-than-significant levels (summarized in Draft EIR Table ES-2). As stated in the comment, these biological resources mitigation measures would reduce the proposed vineyard acreage by approximately 22 percent compared to the proposed project, and if developed, agriculture would be the predominant land use on the project site with the mitigated proposed project. See also Response to Comment O5-4 regarding applicable General Plan policies.
- **O5-7** The comment's suggestions to allow permanent conservation easements on nearby properties and allow higher levels of mitigation replanting for the plant species that are known to propagate well are noted. The County did consider multiple overlapping sensitive species when choosing areas for avoidance, as suggested by the comment. As stated on Draft EIR pages 3.3-43 and 3.3-44, California bay forest, dense holly-leaved ceanothus, and two-carpellate western flax would be avoided in vineyard Block Y16 with implementation of Mitigation Measures 3.3-1a and 3.3-1b, and California bay forest, holly-leaved ceanothus, two-carpellate western flax, and green monardella would be

¹ Goal ROS-1: To ensure an extensive landscape of open spaces in which recreation, the protection of natural, cultural, and archaeological resources, agricultural production, and private property are mutually supportive and complementary.

avoided in vineyard Blocks V1, Y14, and Z18–Z20 with implementation of Mitigation Measures 3.3-1a and 3.3-1h.

- **O5-8** The comment is noted. No changes to the Draft EIR have been made in response to the comment. Furthermore, amending mitigation to allow greater development area and a much greater reliance on plant replacement would likely result in greater or different impacts than those disclosed and assessed in the Draft EIR, resulting in the potential for recirculation.
- **O5-9** See Responses to Comments O5-10 and O5-11. Should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. As such, modeling of the smaller footprint of the mitigated proposed project and the phasing of construction proposed was completed and average daily oxides of nitrogen (NOx) emissions during construction would be less than the Bay Area Air Quality Management District (BAAQMD) threshold of 54 pounds per day. Therefore, the use of construction equipment that meets Tier 4 Final standards as described in Mitigation Measure 3.2-1a would no longer be required with implementation of the mitigation measures identified in Section 3.3, *Biological Resources*; therefore, the Draft EIR text has been updated. See Final EIR Chapters 2 and 4.
- **O5-10** The comment is noted. The air quality analysis has been updated to account for the smaller footprint of the mitigated proposed project (approximately 91 acres), as described in Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 and noted in Impact 3.2-1, and the phasing of construction proposed in two phases, as compared to a single phase assumed originally in the Draft EIR. The revised estimates also account for the reduction in the amount of equipment needed to conduct the construction activities and the reduced activity level (hours per day of use) for each piece of equipment based on the reduced construction footprint. The start year for construction was also changed to from 2021 to 2022. See Final EIR Chapter 2 and Response to Comment O3-2 for the updated estimates.
- **O5-11** With the changes listed under Response to Comment O5-10, average daily NO_X emissions during construction would be less than the BAAQMD threshold of 54 pounds per day. Therefore, the use of construction equipment that meets Tier 4 Final standards as described in Mitigation Measure 3.2-1a would no longer be required with implementation of the mitigation measures identified in Section 3.3, *Biological Resources* and the Draft EIR text has been updated (see Final EIR Chapters 2 and 4).
- **O5-12** The County is still requiring project phases with 100 percent replacement of the specialstatus plants in the first phase, as described in revised Mitigation Measure 3.3-1j (see Final EIR Chapters 2 and 4). However, the mitigation text has been revised to allow two phases with a maximum of 75 gross acres in Phase 1, and with Phase 1 being designed

to avoid removal of any two-carpellate western flax or green monardella. The phasing is intended to demonstrate that the special-status plants removed and replaced as result of the project (i.e., holly-leaved ceanothus, two-carpellate western flax, and green monardella) can be successfully replaced and reestablished consistent with Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h prior to commencement of Phase 2 by requiring that all replacement plantings for the entirety of the project be installed in Phase 1 and successfully established before commencement of Phase 2.

Biological studies have been conducted on several parcels in the Rector Reservoir watershed for previous Agricultural Erosion Control Plan (ECPA) projects, including two in the eastern portion of the watershed (Mansfield/Baker #04086-ECPA and Costa #03020-ECPA) and two adjacent and south of the proposed project (Cordes #03522-ECPA and Stagecoach #P06-0042-ECPA). As indicated in these project's CEQA documentation and determinations, extensive chaparral habitat with holly-leaved ceanothus has been observed on these sites and in the region, similar to that observed and documented on the project site.

As disclosed on Draft EIR pages 3.3-37 and 3.3-38, some plant species have life history characteristics (rhizomatous perennials, generalist habitats, robust production of propagules) that favor their success in replacement plantings, holly-leaved ceanothus has been successfully propagated, planted, and re-established in Napa County.

While the failure rate for replacement of plant species may generally be high, there is documented success for holly-leaved ceanothus transplanting and reestablishment. Specifically, the Final EIR adopted for the Stagecoach Vineyards ECPA Project (#P06-0042-ECPA, State Clearinghouse #2006082143, Certified October 2, 2008) located immediately to the south of this project, required 15 acres of holly-leaved ceanothus replanting. The Holly-leaved Ceanothus Replanting Plan (AES 2008) recommended planting holly-leaved ceanothus at medium densities of approximately 90 plants per acre, for a total of 1,350 plants. Replanting began in 2008 and was monitored for 5 years. Each year survival was assessed and additional plantings completed in order to achieve the required total surviving plants. Between 2008 and 2012, 3,383 holly-leaved ceanothus were planted, and in the final monitoring year (December 2013), 1,743 plants survived and were observed to be in very good shape. Their continued survival, in excess of the mitigation requirement of 90 plants per acre over 15 acres, is expected. This data was also included in the Bloodlines project CEQA documentation and determination (#P16-00323-ECPA, State Clearinghouse #2016122063, Certified December 4, 2019).

Mortality of replacement holly-leaved ceanothus in the Stagecoach Vineyards #P06-0042-ECPA was primarily due to (1) accidental mowing, and (2) excessive drip irrigation. Adaptive management was employed in order to address these issues, as is expected in any restoration plan. Lessons from this restoration would be applied to the Mitigation and Monitoring Plan required by Mitigation Measures 3.3-1b, and to project phasing required pursuant to Mitigation Measure 3.3-1j.

Given the documented success of holly-leaved ceanothus replacement within the immediate vicinity of the project site, project phases that do not include the removal and replacement of two-carpellate western flax or green monardella may commence in tandem with the commencement vineyard construction in that development phase. For any phase that includes removal and replacement two-carpellate western flax or green monardella, development of vineyard may commence once replacement plants have been installed and replacement success criteria has been demonstrated and met as described in the respective mitigation measures (3.3-1f and 3.3-1h).

The documented replacement success also shows that a minimum 5 year monitoring period is necessary to ensure adequate and effective mitigation of plants removed as part of the project, and before a subsequent phase can be commenced. Further, to maximize success within 5 years, replacement plants for this project shall be provided at a 1.2:1 ratio to ensure that 100 percent of the plants removed would be replaced within the monitoring period.

With respect to the mitigatory monitoring period, Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h already provide for a minimum 5 year monitoring period before a subsequent phase can be commenced to ensure adequate and successful plant replacement, consistent with CDFW recommendations and past practices.

Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h states that mitigatory transplanting and habitat enhancement areas will be located in suitable on-site habitat as determined by a qualified biologist. Additionally, pursuant to Mitigation Measure 3.3-1a these areas and associated habitat will be preserved in perpetuity under a deed restriction, open space easement with an organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection. Please refer to Response to Comment S2-6.

These mitigation changes are not expected to affect the potential level of impact, and may result in increased reductions in impact significance to sensitive plant species beyond what was disclosed and analyzed in the in the Draft EIR.

See also Responses to Comments O1-27 and O1-33.

O5-13 See Response to Comment O5-12. The County is requiring implementation of Mitigation Measure 3.3-1j to avoid a potentially significant impact in the event that two-carpellate western flax and green monardella cannot be successfully replanted or otherwise replaced after being removed, which would mean that the mitigation would not be carried out effectively and the direct impact on the plants would remain unmitigated. Given the documented success of holly-leaved ceanothus replacement within the immediate vicinity of the project site, project phases that only include the removal and replacement

of holly-leaved ceanothus may commence in tandem with the commencement vineyard construction in that development phase.

- **O5-14** The comment is noted. See Responses to Comments O5-12 and O5-13.
- **O5-15** See Responses to Comments O5-12 and O5-13. The mitigation text has been revised to allow development of the project in two phases with a maximum of 75 gross acres in either phase, and with Phase 1 being designed to avoid removal of any two-carpellate western flax or green monardella. See Final EIR Chapters 2 and 4.
- **O5-16** Mitigation Measure 3.3-1a has been revised to clarify that access, use, maintenance, and repair of the two existing groundwater supply wells within the project site (shown on Figure 1 in Draft EIR Appendix J, *Water Availability Analysis*) are allowed within the Preservation Area. See Final EIR Chapters 2 and 4.
- **O5-17** Napa County thanks the E&J Gallo Winery for the Draft EIR comments provided.

Kellie Anderson Linda Falls Alliance 445 Lloyd Ln. Angwin CA 94508

March 29, 2021

Don Barrella, Planner III Napa County Planning, Building and Environmental Services 1195 Third St. Suite 210 Napa, CA 94559

Opposition to Stagecoach North Vineyard Conversion Erosion Control Plan Application #P18-004466-ECPA Draft EIR

Dear Mr. Barrella,

The proposed Stagecoach North Vineyard Conversion project impacts are inadequately analyzed in the DEIR. Significant impacts to biological resources, fire risk, surface water and cumulative impacts have not been adequately described to evaluate the impacts nor to offer mitigation measures to reduce impacts. The proposed Mitigation Measures offered are typical cut and paste measures routinely included in similar project DEIRs and FEIRs and Mitigated Negative Declarations approved by Napa County. There is ample evidence from past project failures and violations that there is no assurance that proposed mitigation measures will be built per approved plans nor verified by county staff and therefore have no reasonable expectation of reducing project impacts.

FIRE

Evaluation of fire risk from project development, including vegetation clearing, use of heavy equipment including blasting, rock removal and deep ripping creates an increased fire risk that is not acknowledged or analyzed. Even equipment moving onto site results in increased fire risk with approximately 95% of wildfires being caused by human activity. The recent Glass Fire ignition source, while still under investigation, is initially suspected to be an electric wildlife fence surrounding a vineyard in a remote location. While the DEIR states no increased fire risk would occur because "vegetation would be cleared prior to vineyard development", it is indeed the very vegetation clearing including the use of chainsaw, bulldozers, deep shank rippers, ditching equipment, gravel delivery and burn piles to dispose of cleared vegetation, that pose increased fire risk not as erroneously indicated the grape vines themselves.

For the DEIR to completely ignore fire risk is irresponsible, (and intentional) and staff is obligated to require a fact based analysis of the fire risk from use of equipment during vegetation removal, rock removal and ground preparation. The applicant must address increase in traffic from vineyard development and ongoing vineyard maintenance on narrow, winding, nearly one lane road and how this might impact emergency response and evacuation of residents and

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workers from Soda Canyon Rd. To dismiss the fire risk as low because of the "5 1/2 months of construction" is to obfuscate the required evaluation of fire risk in Napa County in every month of the year. The DEIR must discuss fire risks of electric gates, electrified fences, new pumps and all electric power sources. Please address fuel storage, transport, refueling of equipment and parking of worker vehicles and vineyard equipment on site. Lastly, the DEIR is silent and fails to discuss worker and community evacuation limitations out of Soda Canyon Rd. during fires from any ignition source. Increased worker numbers will obviously impact evacuation capacity and must be analyzed. The conclusion of no increased fire risk in this DEIR is shocking and staff must require fact based data on evacuation capacity and not "rule of thumb" of road capacity.

BIOLOGY

Biological impacts from this project, as typical with Napa County vineyard developments, are not adequately identified nor analyzed. The DEIR completely fails to describe existing conditions in its Environmental settings section. One example, common in many vineyard projects, is generation of rock spoils. While the DEIR claims the project will use "some of the rock generated in erosion control features", this same statement is made in environmental reviews of many similar projects. (Bremer, Patrick, Cakebread etc.) yet piles of heat reflecting rock spoils linger on these sites for decades. Not surprisingly, the DEIR indicates the use of rock in roads and erosion control features is insufficient to utilize all rock spoils generated and in fact the site will be burdened with wastelands of rock debris reminiscent of placer mining spoils forever. The project actually acknowledges the creation of "stock piles less than thirty feet tall'! Less than thirty feet? Is that 29.5 feet tall? How big of a foot print will these spoils occupy? Where will these mountains of rock spoils be located? What is the actual area proposed to be covered by said piles of rock debris? How will silt and dirt in said rock spoils be prevented from washing into streams and waterways for the life of their temporary existence? What techniques will be employed to eliminate dust from blowing off of these "less than thirty foot" piles? How "temporary" are these piles? The DEIR lacks sufficient detail on the quantity, location and ultimate fate of rock spoils to evaluate impacts. The prior owners reported removing "over one million tons of rock" in previous vineyard block development and large piles of rock spoils are still visible from aerial photographs. This DEIR must provide information to account for the volume of generated rock, the final fate of "temporary" rock debris piles (where, when, how) and must evaluate the impacts of heat reflection from rock piles on the environment and the creation of heat islands following removal of vegetation cover.

Biological impacts to terrestrial animals must be accurately identified and analyzed. Wildlife fencing is a ubiquitous problem in Napa County. While 17 vineyard blocks are proposed what are the actual number of vineyard gates proposed? Please discuss the program for management of these gates in precluding entrance and entrapment of large mammals particularly deer and bear. What are the actual techniques that will be employed by workers should a large animal be trapped within or on fencing? Will animals be chased? Will animals be destroyed with depredation permit? Will 'cattle guards' be constructed at each gate? How would these fences and associated wildlife exclusion structures be maintained over the life of the project to ensure safe exclusion of large animals? Will the fence below existing blks x10 and x11 be removed? This area would provide some meager shelter, forage and nursery resources to wildlife. How

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 many total (cumulative acres) will the entire Stagecoach Vineyard have enclosed within fencing when complete? Specific to wildlife fencing, how will county staff actually verify fencing is installed correctly? That fencing is located as per approved plans and not changed in field? What is the correct method of installing wildlife fencing to protect small birds and mammals? Given the repeated failure of County of Napa Staff to ground truth correct wildlife fence construction (Abreu, Bremer etc.) how can this project insure protection of smaller animals from harm and death due to fencing? As the County fails to verify and monitor proper wildlife fencing installation how will reduction of biological impacts be assured? 	A O6-9 Cont.
Will rodenticides be used in vineyard? What are the impacts of rodenticide use on non-target wildlife? From 2014 to 2018 the California Department of Fish and Wildlife found rodenticides in over 75 percent of animals tested including 90 percent of mountain lions tested, 88 percent of bobcats tested and 70 % of Northern Spotted Owls tested. The DEIR is silent on this potential biological impact and must include an analysis of impacts to wildlife species.	06-10
The project description states that chemicals would be stored and mixed in a "storage container". Please describe how sprayers, dusters, and large multi-row application apparatus would possibly be mixed and loaded in a storage container? Where is the washout station (s) located and how will chemical rinsate and equipment washing be conducted to avoid contamination of surface water? Where will outhouse servicing and washing occur? While application inspections and pesticide usage is monitored by Agricultural Commissioner, this DEIR must validate the mitigation measures included are feasible to implement.	06-11
Is chemigation proposed? Where are injection points? Where would chemicals used in chemigation be placed during injection to avoid contamination of surface water? Show these locations on map. Applicant has failed to provide sufficient details on impacts from herbicides, insecticides, fertilizers, rodenitcides, nematicides and wildlife exclusion techniques on wildlife, surface water and off site non target species to evaluate project impact to biological resources. Best management practices referenced lack specific detail and have no standards to evaluate impacts.	06-12
CLIMATE CHANGE AND GREEN HOUSE GAS	T
Given the pending legal case on the Walt Ranch project please discuss how the vegetation loss proposed in the Stagecoach Project North will mitigate for increases in green house gas emissions generated by the project? How will carbon sequestration be achieved given the project	06-13
proposes to clear trees and vegetation that currently functions as carbon storage? Please evaluate	06-14
the impacts cumulatively of the project on known and anticipated tree, forest and vegetation destruction for vineyard development analyzed in the County General Plan FEIR given the recent fires in Napa County including Glass, LNU, Tubbs, Nuns, and Atlas. Please evaluate carbon sequestration capacity of conserved vegetation on and off site post fires. What is the reduced carbon sequestration capacity of burned vegetation? The DEIR fails to explore the nex of loss uncountable acres of natural vegetation from fires in relation to the continued permitting	

of vineyard development in Napa County and this project's cumulative impacts to green house gases and carbon sequestration. This DEIR must address these current conditions.	06-16 Cont.
PROJECT LIFE AND ENFORCEMENT OF AS APPROVED PLANS	-
Throughout Napa County multiple failures to protect surface waters from erosion from approved erosion control plans and infrastructure are documented. 'T' or Level Spreaders have failed, were modified or have been installed incorrectly deviating from approved plans. Failure of erosion control infrastructure is known by County staff and project engineers. Project failures at Cliff Family, Mondavi Cold Springs Rd., Abreu and Pringle in Angwin are all well known. Deviations from approved erosion control plans at Del Dotto and Bremer are largely ignored by Napa County. In the case of Bremer enforcement action by Regional Water Quality Control Board to enforce surface water and public trust resources was required.	O6-17
Because Napa County, in approving these ECPAs becomes a partner in these projects for the life of the project, please provide evidence that this project will actually be built per approved plans and that no unapproved field changes will be made reducing the efficacy of the approved plan? Please discuss the County Planning Staff's milestone inspection program to verify that all grading, trenching, cut and fill, sediment basins, level spreaders and erosion control design feature etc. are properly installed per approved plans and are working and effective for the life of the vineyard.	-
Multiple known failures and violations continue to contribute to degradation of surface water resources from vineyards throughout Napa County. Failed erosion control infrastructure and unauthorized modifications to approved plans continue uncorrected at Bremer in Deer Park, Abreu in Angwin, Patick in Deer Park. Documented erosion control infrastructure failures at Mondavi Cold Springs Rd., Cliff Family Ink Grade Rd., and Pringle at Howell Mountain Mutual Water Company all harmed surface water resources. The County of Napa out sources final erosion control inspections to Resource Conservation District staff (who have no enforcement authority and actually are frequently involved in project design) at end of project but conducts no milestone inspections during project construction. This DEIR fails to describe how erosion control plans will be followed by applicant and fails to describe process where unpermitted changes or violations be caught and corrected under currently County inspection regime. As currently administered, the vineyard development process in Napa County including this project DEIR has no enforcement assurance. Please discuss County of Napa milestone inspection and follow up validation of function of erosion control infrastructure and practices for the life of the vineyard to insure protection of surface water and downstream aquatic resources.	06-18
As written this DEIR and proposed mitigation measures are inadequate to protect biological resources, fails completely to address risk to public safety and increased fire risk and offers no reasonable assurance of surface water protection from erosion from project. This DEIR is typical of those approved for similar vineyard development projects by Napa County and it establishes the pattern and practice of approving vineyard development projects without any verifiable reductions in impacts to biological, surface water and increased fire risk.	06-19

Respectfully,

Kellie Anderson Linda Falls Alliance 445 Lloyd Ln. Angwin, CA 94508

Letter O6Linda Falls Alliance, Kellie AndersonResponseMarch 29, 2021

- **O6-1** The commenter's belief that the Draft EIR does not adequately analyze impacts on biological resources, fire risk, surface water, and cumulative impacts is noted; see Responses to Comments O6-2 through O6-19 for specific responses addressing these topics. The Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015).
- **O6-2** See Global Comment Response 1. Draft EIR page 1-7 (summarizing text from page 23 of the Wildfire section of the Initial Study, in Appendix B of the Draft EIR) states that project construction would require the presence of some vehicles and heavy equipment that could spark and ignite flammable vegetation, but that the risk of construction igniting a fire would be low because vegetation would be cleared before development of the vineyard. Page 1-7 of the Draft EIR also states that operations and maintenance activities would be similar to activities already occurring in the project area, which include operation of an existing vineyard.

Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant (see Final EIR Chapter 2, *Revisions to the Draft EIR*). This information describes practices currently implemented on the adjacent Stagecoach property owned by the Applicant that would be implemented for the proposed project. See also Response to Comments I1-3 through I1-7, I1-9, I2-3, I3-3, I3-54 through I3-63, I5-6 through I5-9, I5-15, I5-16, and O6-3 through O6-6.

O6-3 As stated in Global Comment Response 1 and Response to Comment O6-2, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

All current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach EAP, which includes safety measures that would be implemented during an incident (see Final EIR Appendix A). These measures include an evacuation plan and communication procedures and reporting and communication

protocols with management and emergency officials (described in Global Comment Response 1).

The transportation analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project operation would generate up to 28 one-way daily vehicle trips. The harvest is the most labor intensive period for vineyards, generating the most traffic, which is why it is the focus of the analysis of project operation transportation impacts in the Draft EIR. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that the impact would be less than significant.

Further, should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. This would reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. The mitigation measures are summarized in Draft EIR Table ES-2, and Table 3.3-5A shows the mitigated proposed project acreage with implementation of the biological resources mitigation measures identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage). Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, *Alternatives Analysis*. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include implementation of all mitigation measures identified in the Draft EIR for the proposed project and would also reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. See also Responses to Comments I3-37 and I5-15.

Also, based on the Applicant's past vineyard operations experience adjacent to the project site, the time of day that harvest activities typically occur would correspond to inbound vehicle trips occurring before 6 a.m. and outbound vehicle trips between 2 and 3 p.m. The peak period of traffic, according to the 2019 traffic counts conducted for the proposed project, occurred between 6 and 7:15 a.m. in the eastbound direction (inbound) and between 2:45 and 4:30 p.m. in the westbound direction (outbound) on Fridays during the harvest period. On Saturdays, the peak hours of traffic were between 5:30 and 6:45 a.m. in the eastbound direction (inbound) and between 12:30 and 1:45 p.m. in the westbound direction (outbound). Therefore, although some overlap with peak traffic conditions on Soda Canyon Road could occur, the majority of vehicle trips would occur during off-peak hours.

O6-4 As stated in Response to Comment O6-3, traffic volumes resulting from implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions. Vehicle trips would be further reduced with the mitigated proposed

project or alternatives (as stated in Response to Comment O6-3), given the reduced acreage that would be developed and operated.

See Global Comment Response 1 and Response to Comment O6-2 regarding the numerous procedures and management practices that would be implemented during both construction and operation of the proposed project to minimize fire risk. No electric gates or fences are proposed and no equipment would be operated that would have the potential to create a spark on Red Flag days.

O6-5 As stated in Global Comment Response 1 and Response to Comment O6-2, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project. Worker vehicles and vineyard equipment would be parked within the proposed development area.

Equipment, fuels, and chemicals would be stored in receptacles and areas that would be appropriate for reducing the risk of fire ignition. Equipment would be allowed to cool during a break before refueling. No equipment would be operated that would have the potential to create a spark when the National Weather Service issues a Red Flag Warning. All existing Stagecoach equipment is equipped, and any future equipment would be equipped, with fire extinguishers. Equipment operators would be trained by a qualified professional during onboarding and annually in the use of best fire prevention practices as well as in the use of fire equipment.

O6-6 As stated in Response to Comment O6-3, traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions. Vehicle trips would be further reduced with the mitigated proposed project or alternatives (as stated in Response to Comment O6-3), given the reduced acreage that would be developed and operated.

All current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach EAP (see Final EIR Appendix A), which includes safety measures that would be implemented during an incident. These measures include an evacuation plan and communication procedures and reporting and communication protocols with management and emergency officials (described in Global Comment Response 1).

O6-7 Biological resources impacts are analyzed in Draft EIR Section 3.3. The commenter's belief that impacts are not adequately identified or analyzed and that the Draft EIR fails to describe existing conditions in its environmental setting section is noted. See Responses to Comments O6-8 through O6-12 for specific responses addressing this topic.

- **O6-8** The Draft EIR Project Description (Chapter 2) and the Erosion Control Plan (ECP) Narrative (Draft EIR Appendix A) state that rock would be generated by the proposed project. As noted in the Draft EIR, all rock storage would occur within the approved clearing limits for the proposed project, and rock would not be stored in native habitat designated for preservation (identified on Figure 3.3-6, from Mitigation Measure 3.3-1). The Applicant anticipates storing rock in a central location on the project site until it can be crushed on-site and used for road maintenance or construction of erosion control features such as rock-filled avenues. Necessary best management practices (BMPs) would be installed and inspected to control erosion or runoff associated with rock storage areas pursuant to NCC Section 18.108.135 (Oversight and operation). The commenter provides no evidence that rock storage areas would result in heat islands that could potentially result in significant impacts beyond what was disclosed and analyzed in the Draft EIR.
- **O6-9** If wildlife were to be discovered inside the wildlife exclusion fencing, the gates would be opened and the wildlife would be allowed to leave on its own accord. No cattle guards would be used. The entire perimeter fence is checked and would continue to be checked bi-annually. Any issues with the fencing discovered over the course of standard operations are addressed immediately by the owner.

See Response to Comment O6-18 for information on inspections, monitoring, security, and compliance provisions. In addition, the following text has been added to Mitigation Measure 3.3-4 to further clarify the County's inspection process:

Prior to completion and finalization of P18-00446-ECPA, all wildlife exclusion fencing shall be inspected by the County to ensure that it was installed in substantial conformance with the approved Vineyard Fencing Plan. Any wildlife exclusion fencing not installed in conformance with the Fencing Plan shall be removed and replaced in accordance with the Fencing Plan. Any vegetation removed as part of incorrect fencing installation shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the Planning Director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, the locations of replacement plantings, plant pallet and planting methods, success criteria of at least 80 percent, and a monitoring schedule.

The County has also revised the wildlife exclusion layout in Figure 3.3-6, taking into consideration the existing wildlife exclusion fencing along the southern boundary of the project site. A new component has been added to Mitigation Measure 3.3-4 to further protect avoided/undeveloped areas enclosed by wildlife exclusion fencing as a result of mitigation. See Final EIR Chapter 2, *Revisions to the Draft EIR* and Chapter 4, *Mitigation Monitoring and Reporting Program* and Responses to Comments O6-18 and O3-5.

- **O6-10** No rodenticides would be used for the proposed project, as identified in the Supplemental Project Information forms included in Draft EIR Appendix A. The application materials indicate that rodent protection methods would consist of raptors and traps.
- **O6-11** The chemical storage, mixing, and cleaning area would be located in proposed Block V1 as shown on Figure 5 of the ECP (Draft EIR Appendix A). A tractor wash-out station would also be installed in Block V1. Outhouse servicing by a third party would be completed once weekly and disposed of offsite.
- **O6-12** No chemigation is proposed.

Impacts related to hazardous materials, including fuels, pesticides, and fertilizers and measures to avoid or minimize those impacts, are discussed in detail in DEIR Section 3.6, *Hazards and Hazardous Materials*. The proposed project would implement integrated pest management techniques. These measures would ensure that impacts on non-target species would be avoided. The proposed project would be required to comply with hazardous materials and stormwater regulations to ensure that hazardous materials are transported, used, stored, and disposed of safely to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies. Potentially hazardous materials would be contained, stored, and used onsite in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

- **O6-13** As described in Draft EIR Impact 3.2-5, the proposed project's construction emissions, as annualized over the life of the project, combined with the project's operational emissions (including changes in carbon stock/storage and sequestration resulting from project-related land use changes), would not exceed BAAQMD's operational threshold: 1,100 metric tons (MT) carbon dioxide equivalent (CO₂e) per year for land use projects other than stationary sources (Draft EIR Table 3.2-9). As a result, the impact would be less than significant. See also Response to Comment O6-14.
- **O6-14** As discussed in Draft EIR Impact 3.2-5, converting the site's existing land uses into vineyard would result in a one-time change in carbon storage, as well as losses to carbon sequestration potential over the project's lifetime from the removal of existing vegetation and planting of new vineyards. The analysis in the Draft EIR accounts for both a one-time carbon storage loss from the soil and above ground and an annual, ongoing decline in the site's carbon sequestration potential when vegetation is removed. This loss in carbon stocks and sequestration would be offset somewhat by the planting of new vineyard in the development area.

Draft EIR Table 3.2-8 shows the overall project-related change in greenhouse gas (GHG) emissions from carbon stocks and sequestration. As described in Responses to

Comments I3-8 and O1-12, the table has been updated to include the higher carbon storage factor for the chamise alliance to reflect shrubland habitat rather than grassland (see Final EIR Chapter 2). The revised annualized emissions would still be less than BAAQMD's operational GHG threshold, 1,100 MT CO₂e for land use projects. Therefore, although the project would result in an increase in GHG emissions on an ongoing basis, the increase would not be considered significant because it would be less than BAAQMD's thresholds.

O6-15 As described in Draft EIR Section 3.1.2, *Section Format*, consistent with State CEQA Guidelines Section 15125, the physical environmental conditions as they existed at the time the Notice of Preparation (NOP) was published (i.e., October 14, 2019) are described in the Draft EIR. The section notes that vegetation on the property was burned by wildfire in August 2020. Assessing environmental impacts based on the physical environmental conditions that existed at the time the NOP was published allows for the most conservative assessment of impacts. For example, assessing impacts on special-status plant species and habitats based on vegetation communities documented to occur on the project site at the time the NOP was published provides a conservative estimate of impacts compared to assessing impacts based on burned ground cover. Additionally, the chaparral vegetation on the project site is adapted to fire and regenerates readily after fire.

Draft EIR Section 4.1.2, *Cumulative Impacts*, pages 4-10 through 4-13, analyze cumulative impacts on biological resources, concluding that the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact on biological resources.

- **O6-16** As noted in the comment, the project site was affected by the recent fires in Napa County. Because the fires burned the vegetation onsite, the project site's carbon stock and carbon sequestration potential is greatly reduced compared to the pre-fire conditions. However, it is not possible to quantify this reduction. Therefore, the analysis conservatively uses the pre-fire conditions as the baseline (as explained in Draft EIR Section 3.1.2, *Section Format*). Using the pre-fire baseline also accounts for the fact that by the time the project site is developed, onsite vegetation may be different. The reduction in sequestration potential from both fires and vineyard development is real; however, fire is a natural and ongoing process in California's natural ecological life history, and the ecosystem will recover and likely regain all of its pre-fire sequestration potential in areas not converted to vineyard.
- **O6-17** The commenter's statement that past projects in Napa County have documented failures in erosion control infrastructure that affected surface water quality is noted.
- **O6-18** This comprehensive response details the inspections, monitoring, security, and compliance provisions to which the project will be subject if the project is approved, so

that the project will be developed in compliance with the approved Erosion Control Plan Application (ECPA) plan and specifications and project mitigation measures.

The project would be subject to the following standard conditions of approval that require demarcation of the development area and resource protection before project initiation, as well as provisions to replace vegetation outside of the approved project boundaries that is inadvertently removed.

Pre-construction meeting: The owner/permittee shall schedule an on-site preconstruction meeting that shall include the project planner, owner or owner's agent, vineyard manager/developer, and any other parties deemed necessary by Planning Division staff, such as but is not limited to: County Engineering Division staff, the project biologist, or representatives of any affected responsible or trustee agency. Napa County staff shall be provided a minimum of two weeks' notice for the meeting to provide adequate time to schedule. The purpose of this meeting will be to review the development and operation requirements of #P18-00446-ECPA including but not limited to: implementation and compliance with project specific conditions of approval, timing of development activities and winterization of the site, the details of the approved plan, and the ECPA modification process. All required/necessary protective buffers, including buffer fencing/delineation, shall be installed prior to the pre-construction meeting for inspection by Engineering and Planning Division staff. Development activities associated with #P18-00446-ECPA shall not commence until the owner/permittee has received written clearance from the Engineering and Planning Division indicating that all applicable conditions have been satisfied.

Tree and Woodland Protection:

- a. Prior to any earthmoving activities, temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the project area (typically within approximately 50 feet of the project area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- b. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the vineyard conversion area.
- c. In accordance with Napa County Code Section 18.108.100 (Erosion Hazard Areas—Vegetation Preservation and Replacement), any trees inadvertently removed as part of development authorized under #P18-00446-ECPA shall be replaced onsite at a ratio of 2:1 at locations with similar habitat, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, the locations of replacement trees, success criteria of at least 80 percent and monitoring activities for the replacement plants/populations. The replacement plan shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least 5 years to ensure an 80 percent survival rate.

Stream Protection: The applicant/owner shall implement the following measures (as necessary and at the discretion of the Planning Division) to prevent the inadvertent encroachment into specified creek setbacks and associated riparian features during construction and subsequent vineyard operations:

- a. The location of creek setbacks shall be clearly demarcated in the field, as necessary, with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Planning Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation. The protection fencing shall remain in place for the duration of project implementation.
- b. All construction and related traffic will remain on the inside (vineyard block side) of the protective fencing to ensure that the creek, buffer zones, and associated riparian habitat and/or woodland remains undisturbed.
- c. In accordance with County Code Section 18.108.100 (Erosion hazard areas Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P20-00063-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for County review and approval, which includes, at a minimum, the locations where replacement trees will be planted, success criteria of at least 80 percent and monitoring activities for the replacement trees. The replacement plan shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least three years to ensure an 80 percent survival rate.
- d. Refrain from disposing of debris, storage of materials, or constructing/operating the vineyard, including vineyard avenues, outside the boundaries of the approved plan, or within required setbacks Pursuant to Napa County Code Section 18.108.025 (General Provisions Intermittent/perennial streams). Furthermore, all operational activities that include the use or handling of hazardous materials, such as but not limited to agricultural chemical storage and washing, portable restrooms, vehicular and equipment refueling/maintenance and storage areas, soil amendment storage and the like, shall occur at least 100 feet from groundwater wells, water courses, streams and any other water resource to avoid the potential risk of surface and groundwater contamination, whether or not such activities have occurred within these areas prior to this ECPA approval.

As noted in Response to Comment O6-9 (and Response to Comment O3-5), the following components have been added to Mitigation Measure 3.3-4 to further clarify the County's inspection process and avoid indirect impacts and encroachment into avoided habitats as a result of implementation of the mitigation measures:

 Prior to completion and finalization of P18-00446-ECPA, all wildlife exclusion fencing shall be inspected by the County to ensure that it was installed in substantial conformance with the approved Vineyard Fencing Plan. Any wildlife exclusion fencing not installed in conformance with the Fencing Plan shall be removed and replaced in accordance with the Fencing Plan. Any vegetation removed as part of incorrect fencing installation shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the Planning Director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, the locations of replacement plantings, plant pallet and planting methods, success criteria of at least 80 percent, and a monitoring schedule.

- The owner/permittee shall implement the following measures to avoid indirect impacts and encroachment into avoided habitats:
 - a. The project boundaries (i.e., clearing limits) specified and shown on #P18-00446-ECPA, as modified by mitigation and/or a project alternative, shall be flagged in the field by the project engineer and protective construction fencing shall be installed along the boundaries. Construction fencing shall be inspected and approved by the County prior to the commencement of vegetation removal and earth-disturbing activities. No equipment or work shall be allowed within the avoidance areas. The protective construction fencing shall be maintained and remain in place until all grading and erosion control measure installation are complete.
 - b. For avoided areas located inside wildlife exclusion fencing as a result of implementation of mitigation, the protective constructive fencing shall be replaced with a wildlife-friendly permanent means of demarcation and protection around the avoided areas (such as split rail fence, three-strand wire fence, or rock fence/barrier) so that avoidance areas are not encroached upon or disturbed as part of ongoing vineyard operations. The permanent means of demarcation shall be described and shown on the fencing plan pursuant to Mitigation Measure 3.3-4, and shall be installed prior to completion and finalization of the ECPA.
 - c. In accordance with County Code Section 18.108.100 (Erosion hazard areas Vegetation preservation and replacement), any vegetation inadvertently removed that is not located within the approved boundaries or clearing limits of #P18-00446-ECPA shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval that includes, at a minimum, the location of suitable habitat on the project parcel, the locations of replacement plantings, and success criteria of at least 80 percent, including monitoring schedule and activities. The replacement plan shall be implemented before vineyard planting activities. Any replaced plants shall be monitored for at least three years to ensure an 80 percent survival rate.

Because the subject property is located within a Sensitive Domestic Water Supply Drainage (Rector Reservoir), the project, if approved, would also be subject to the security provisions of Napa County Code Section 18.108.140(A) to ensure proper installation and ongoing maintenance of the required erosion and runoff control measures, implemented through the condition below.

Security (Sensitive Domestic Water Supply Drainage): The Owner/Permittee shall submit within ten (10) days of the effective date of this approval or prior to the commencement of earthmoving activities (whichever comes first) the following securities required pursuant to Napa County Code Section (NCC) 18.108.140(A) for the purpose of ensuring the proper installation and ongoing maintenance of the required erosion and runoff control measures in the manner specified in erosion control plan #P18-00446-ECPA. Securities may be posted in one or more of the forms specified in NCC Section 17.38.030.

- a. Security in the amount of the estimated cost of original installation of the required erosion control measures.
- b. Security in the amount of twenty-five percent of the estimated costs of original installation of the required erosion control measures.

As specified in applicable project-specific mitigation measures (Mitigation Measures 3.3-1c, 3.3-1d, 3.3-1e, 3.3-1f, 3.3-1g, 3.3-1h, 3.3-1i, 3.3-1k, 3.4-4, and 3.3-5), identified resources would be demarcated and protected in the field, and would be subject to inspection by the County before project initiation.

The project, if approved, would also be subject to the standard condition, mitigation measure, and applicable Conservation Regulations provisions identified below, which are associated with ongoing monitoring, inspection, and compliance of an ECPA and vineyard development and operations, including installation of wildlife exclusion fencing:

Erosion and Runoff Control (i.e. Hydromodification) Installation and Operation: The following conditions shall be incorporated by referenced into #P18-00446-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

a) Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to straw wattles, rock-filled avenue/level spreader, rocked crossing, and permanent no-till cover, shall be installed by September 1 during the same year that initial vineyard development occurs. These requirements shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan (#P18-00446-ECPA) shall oversee its implementation throughout the duration of the project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have be installed and are function correctly. Prior to the first winter rains after construction begins, and each year thereafter until the project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.

- b) All temporary and permanent erosion control measures shall be free of plastic monofilament netting (e.g., straw wattles wrapped in black plastic mesh) and should generally be composed of biodegradable or compostable materials, and/or utilize biodegradable or compostable materials in their construction, so that reptiles, amphibians, or animals do not become entangled within them.
- c) Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 90 percent within the vineyard and vineyard avenues. The cover crop may be strip sprayed, with a strip no wider than 1 foot (12 inches) wide at the base of vines, with postemergent herbicides: no pre-emergent sprays shall be used. Should the permanent no till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

18.108.135(E) (Inspection) Each project requiring an erosion control plan that has not received a final inspection and been found complete by the director shall be inspected by the county or its agent ... each winter until the project has been completed and stable for three years. If it is found that the erosion control program implemented is not functioning properly or is ineffective the property owner shall take such remedial measures as the director deems necessary to reduce erosion and related sedimentation to minimal levels. Furthermore, pursuant to NCC Section 18.108.135(E)(2) five percent of projects that have received a final inspection and been found complete by the director shall be spot checked by the director each year to confirm groundcover condition and the proper operation of other erosion control measures. The director, in cooperation with the Napa County Resource Conservation District (RCD) and other county departments and agencies, will develop a remedial program to address any deficiencies that may be identified as the result of these spot checks. The property owner shall implement this program, which may include re-seeding all or some portions of the site or changing agricultural or management practices.

Regarding modification of an ECPA, Napa County Code Section 18.108.080(F) would apply:

Field Modifications. Subsequent to approval/confirmation of the erosion control plan, the owner/permittee may request a field adjustment to the plan to address site-specific issues or field conditions which arose after the commencement of the activity. The owner/permittee shall be responsible to contact the director within twenty-four hours of the changed field condition. Changes, as deemed appropriate by the director shall be confirmed in writing and deemed incorporated into the approved plan.

With respect to violations and penalties the provisions of Napa County Code Section 18.108.140(B) and (C) (below) would apply to the project if approved, and would be initiated and implemented by the County as warranted.

18.108.140(B) <u>Violations</u>. Whenever the director determines that a violation of this chapter has occurred, the director shall notify the violator in writing of the violation and require that certain conditions be implemented or adhered to in a reasonable amount of time to correct the erosion problem. Conditions may include applying for approval of an erosion control plan, implementation of remedial erosion control actions, removal of agricultural crops and related infrastructure planted without an approved erosion control plan or use permit, removal of structures constructed in violation of the NPDES [National Pollutant Discharge Elimination System] program, and/or revegetation of disturbed areas. Each failure to comply with the director's notice or meet the deadlines specified therein shall constitute a separate and distinct violation, punishable as set forth in subsection (C) of this section. Moreover, the county and its agents may with the property owner's consent, with a warrant, or in an emergency enter the property and make necessary repairs or corrections, or perform needed maintenance. The property owner shall fully and completely reimburse the county for the costs associated with this remedial work.

18.108.140(C) <u>Penalties</u>. It is unlawful and a public nuisance for any person to violate any of the provisions of this chapter for any purpose or to cause any other person to do so. Such a violation shall be enforceable as a misdemeanor pursuant to Napa County Code Sections 1.20.150 and 1.20.160. Such a violation may also be abated as a public nuisance by judicial action or by administrative enforcement in accordance with the procedures set forth in Chapter 1.20, commencing with Section 1.20.010, including those pertaining to treble damages for multiple judgments. In addition administrative penalties may be imposed in the manner specified in Chapter 1.28 (Administrative Penalty) of the Napa County Code. In addition, the director may issue a stop work order, report the violator to the appropriate licensing agencies (such as the State Contractor's Licensing Board), report the violator to applicable responsible and trustee agencies, require that the violator apply for and obtain all required permits, refer the matter to the district attorney's office for civil or criminal prosecution and any such other remedies the director deems appropriate.

It should also be noted that since 2015, the County's Engineering Division has reviewed all ECP applications and associated project soil loss and runoff modeling for technical adequacy; the Resource Conservation District has not been involved in project design since that time.

Therefore, it is anticipated that the conditions, mitigation measures, and applicable code sections disclosed above would provide adequate oversight and compliance measures for project implementation and ongoing operation. Additionally, no new or additional evidence has been provided demonstrating the potential level of impact that would occur beyond what is identified in the Draft EIR, or showing that the proposed project or identified mitigation measures would need to be revised to adequately disclose and address potential compliance matters associated with the proposed project.

O6-19 The commenter's opposition to the proposed project is noted. As explained in Responses to Comments O6-2 through O6-18, the Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015).

Steve Chilton POB 2144 Yountville, CA 94559 Schilton6@gmail.com

March 27, 2021

Donald Barrella, Planner III Napa County Planning, Building, and Environmental Services Department 1195 Third Street Suite 210 Napa, CA 94559

Re: Opposition to Stagecoach North Vineyard Conversion Erosion Control Plan Application #P18-00446-ECPA **Draft Environmental Impact Report**

Dear Mr. Barrella,

The proposed Stagecoach North Vineyard Conversion project would, if completed, create significant impacts on the already significant and extreme fire risk in Soda Canyon. These impacts cannot be mitigated. Due to these conditions, I oppose the project.

11-1 11-2

Within the DEIR, the impacts of the project to increased wildfire threats are dismissed as having no impact or a less than significant impact. This conclusion is based upon the consultant's observation that fire risk during construction is temporary and that ongoing operations and maintenance would be similar to activities already occurring in the project area, which include operation of an existing vineyard. 11-3 This conclusion is faulty and needs to be studied further. This project will increase fire ignition risk due to the operation of mechanical equipment, the storage of fuel and chemicals, the burning of brush during development, vines during replants, and simply the presence of humans on a regular basis. Transport of heavy equipment such as dozers in the range of D9 and above and their transporters have been observed on upper Soda Canyon Road during previous construction on the narrow and steep Soda 11-4 Canyon Road and pose collision and engine and brake over-heating threats that have a high likelihood of sparking a wildfire. In addition, the operation of removing large amounts of dry woody fuels and large 11-5 rocks requiring blasting combine to pose a significant impact to the existing threat of wildfire.

The consultant leaves the impression that ongoing vineyard operations and maintenance pose no wildfire threat. During peak fire season the maximum number of workers are present, there is no **I1-6** functioning public warning system, and the dead-end road is narrow, steep, and winding. Conditions are already completely unacceptable from a public safety standpoint, and the proposed project will only compound them. The project would add to the already heavy operations and maintenance level in the vineyards of upper Soda Canyon. It has been observed that during State mandated Red Flag days and nights when the fuel moisture and wind push the fire weather into the extreme category, vineyard operations do not cease. This is especially evident during night-time Red Flag events in September and October. During these times, vineyards are lighted by tractor mounted, high wattage (and hot) lighting 11-7 arrays powered by gasoline fueled generators. Does the vineyard have a fire suppression plan and firefighting equipment (tanker, pumps, hoses and trained personnel) on the vineyard? If so, why isn't this mentioned within the DEIR? This needs to be discussed within the EIR and if the strategy is to work

through Red Flag events on this proposed vineyard, then the possible results must be mitigated and a **11-7** finding of no significant impact is not warranted. Cont.

According to recent published reports, the Napa region is now in the middle of a multi-year drought. As we have seen in 2017 and 2019, this fire season will see extremely low fuel moistures and extreme wind events. If COVID-19 restrictions are relaxed further, more tastings and therefore increased visitor traffic will occur during construction and maintenance of the vineyard. The combination of heavy equipment transports, vineyard maintenance and tastings traffic should be considered.

Putting this all together, it is incumbent upon Napa County to seriously consider that the increased magnitude of fire risk from this project would exceed any meaningful threshold of concern. Due to climate change, the continuing development of vineyards and wineries throughout Napa County and the maintenance requirements of both, human caused ignitions will increase and the natural environment will be such that wildfires will continue to increase in intensity, dwarfing existing fire models and severely taxing wildland fire agencies abilities to combat them. As has been said many times before, it is not if we will have a wildfire, only when. Prevention begins with controlling what you can. In this situation, limiting the circumstances that would increase the risk of wildfire. The DEIR does not fulfill the requirement of disclosing all impacts of the project and therefore should not be certified.

Sincerely,

Steve Chilton

I1-8

11-9

11-10

- I1-1 The proposed project's effect on wildfires was assessed in the Initial Study Environmental Checklist (Draft EIR Appendix B), and is summarized in Draft EIR Chapter 1, Introduction (page 1-7) and in Draft EIR Section 3.6, Hazards and Hazardous Materials (page 3.6-6). The topic is discussed further in Responses to Comments I1-3 through I1-9.
- **I1-2** Napa County thanks the commenter for the Draft EIR comments provided. The commenter's opposition to the project is noted.
- I1-3 See Global Comment Response 1. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant (see Final EIR Chapter 2, *Revisions to the Draft EIR*). This information describes practices currently implemented on the adjacent Stagecoach property owned by the Applicant that would be implemented for the proposed project. See also Response to Comments I1-4 through I1-7, I1-9, I2-3, I3-3, I3-54 through I3-63, I5-6 through I5-9, I5-15, I5-16, and O6-2 through O6-6.
- **11-4** The proposed project includes minimal transport of heavy equipment to the project site, thereby reducing potential conflicts and impacts of project-related construction traffic. As stated on pages 2-9 and 2-10 of Chapter 2, *Project Description*, of the Draft EIR, all equipment, except one D6 and one D9 bulldozer, is already on the adjacent property owned by the Applicant and would not require transport to the project site for project construction. See also Response to Comment I2-8.

Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant, as stated in Global Comment Response 1 and Response to Comment I1-3. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

No equipment would be operated that would have the potential to create a spark when the National Weather Service issues a Red Flag Warning. Equipment operators would be trained during onboarding and annually in best fire prevention practices and the use of fire equipment. In addition, all current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach EAP (Final EIR Appendix A and described in Global Comment Response 1). **I1-5** As stated in Global Comment Response 1 and Response to Comment I1-3, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

Removing dry woody fuels from the project site during construction would reduce the site's fuel load. It is standard practice for blasting to occur after vegetation has been cleared from the site and the fuel load in the area is reduced. Further, a fire safety plan would be provided to Napa County for approval and a licensed third-party vendor would supervise implementation of the approved plan during blasting.

I1-6 As stated in Global Comment Response 1 and Response to Comment I1-3, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

All current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach EAP, which includes safety measures that would be implemented during an incident (Final EIR Appendix A). These measures include an evacuation plan and communication procedures and reporting and communication protocols with management and emergency officials.

I1-7 As stated in Global Comment Response 1 and Response to Comment I1-3, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

No equipment would be operated that would have the potential to create a spark on when the National Weather Service issues a Red Flag Warning. All existing Stagecoach equipment is equipped, and any future equipment would be equipped, with fire extinguishers. Equipment operators would be trained by a qualified professional during onboarding and annually in best fire prevention practices and the use of fire equipment. All current Stagecoach employees also are trained, and any future employees would be trained, on the Stagecoach EAP (Final EIR Appendix A).

I1-8 The comment is speculative in that it predicts that the current fire season will have extremely low fuel moisture and extreme wind events. As stated on page 3.10-1 of Section 3.10, *Transportation*, of the Draft EIR, traffic counts were collected on Soda

Canyon Road on four days in fall 2019: October 4, 5, 11, and 12. These traffic counts were used to establish baseline traffic conditions, which reflect peak harvest conditions and capture all types of vehicle traffic, including visitors to wineries. Local restrictions associated with the COVID-19 pandemic that would affect traffic conditions on Soda Canyon Road did not come into effect until March 2020; therefore, the traffic data used as a basis for the analysis of the proposed project's transportation impacts related to traffic circulation (Impact 3.10-1) accurately reflect non-pandemic traffic conditions.

- 11-9 The comment is noted. As stated in Global Comment Response 1 and Responses to Comments I1-3, I1-4, I1-5, I1-6, and I1-7, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes procedures and management practices currently implemented on the adjacent Stagecoach property to minimize fire risk that would be implemented during both construction and operation of the proposed project.
- I1-10 As explained in Responses to Comments I1-3 through I1-5, the Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and Napa County's Local Procedures for Implementing the California Environmental Quality Act (Napa County 2015).

LETTER 12

March 28, 2021

Donald Barrella, Planner III Napa County Planning, Building and Environmental Services Dept. 1195 Third Street Suite 210 Napa CA 94559

Re: Opposition to Stagecoach North Vineyard Conversion Erosion Control Plan App#P18-00446-ECPA

Dear Mr. Barrella,

As a property owner in Soda Canyon, I appreciate the opportunity to comment on the proposed Stagecoach North Vineyard Conversion Project Erosion Control Plan Application (#P18-00446-ECPA). The purpose of this project is the expansion of the Stagecoach vineyard, which would include removal of vegetation and trees, ripping, rock removal, blasting, and work related construction for vineyard development. I oppose the project as it currently is proposed and feel additional research and disclosure needs to be completed prior to the Draft EIR being accepted and the project moving forward. I have reviewed the Draft EIR prepared for the project and have the following concerns pertaining to the project's potential negative impacts to increased fire risk and traffic issues.

INCREASED FIRE RISK

The Draft EIR fails to adequately address the increased fire risk this project will present to the residents and agriculture businesses within the Soda Canyon community. To claim the project will have no or less than a significant impact is totally overlooking the devastating end results of the fires that have impacted Napa Valley in the last four years. Loss of life and property, destruction of the natural environment, and the overall cumulative effect on air quality and the mental health of Napa citizens was overwhelming and failure to address the role of increased fire risk is irresponsible. In the last four years, the Atlas Fire, Nuns Fire, LNU Complex, and Glass Fire have had a lasting impact on the eastern side of the valley, where this proposed project 12-3 is located.

A comprehensive study into the fire risk during construction and in the on-going vineyard operations is needed. A fire safety assessment by a professional can not only address the increased fire risk but offer mitigation measures to address high risk situations, such as Red Flag Days, and emergency evacuation. I strongly recommend the county to require an independent and objective fire assessment to be added to the EIR.

TRAFFIC

Of most concern upon reading the Draft EIR is the lack of accurate research (and reality) regarding the current traffic conditions on Soda Canyon Road. If approved, this project will result in significant impact on public safety that can not be mitigated. The traffic thresholds are too general, the traffic study cited was based on only four days, two of which were weekends,

12-1

12-4

and also minimizes the problematic issues with the private road and driveway that provides access to the property of this proposed project. This six mile dead end country road was originally built for the few residents that lived in the canyon and the limited agricultural concerns. Life has changed in Soda Canyon, with the significant increase of homes, vineyards, wineries, and tourists, subsequently the number of people who use the road has increased, along with more industrial type of vehicles and a heavy commuting schedule of vineyard workers.	I2-4 Cont.
So, while the Draft EIR claims that "less than significant findings for safe and efficient movement", the question remains why the authors' conclusions are not based on current and comprehensive data? There are just too many unanswered questions in the Draft EIR. Where is a recent traffic study that examines vineyard workers peak commuting hours? Why isn't Soda Canyon Road correctly described with it's blind turns, almost nonexistent shoulders,	 I2-5
narrow bridge, one-mile grade and 25 mile speed limit that no one seems to follow? Is there a reason the authors do not address the dangerous of the road and offer related mitigation by examining the accidents and incidents that have occurred on the road? (From January 2014 to December 2016 there was reported over 638 incidents and accidents on Soda Canyon Road.) Will there be elevated risks associated with drivers who may have been drinking at wineries and are unfamiliar with the road during the stressful situation of an emergency evacuation? What	I 12-6 I 12-7 I 12-8
kind of vehicles will be used for the construction of this project and can the road adequately handle this increased tonnage? What safeguards will be put into place in case of a fire emergency? Does the vineyard staff know the evacuation routes? And of course the million dollar question, if a fire were to occur during harvest time or another high use period after this project was approved, how many more people and vehicles would need to evacuate and to what degree would this compound public safety issues?	☐ I2-8 ☐ I2-9 ☐ I2-10
Before mitigation measures can be recommended, important questions need to be answered, additional research needs to be a completed, and science, not opinions need to be the basis for decisions. It is clear the Draft EIR provides insufficient data for decision makers to reach an appropriate and responsible conclusion for certification. At a minimum, I urge the county to request a fire risk assessment and a more comprehensive study regarding traffic conditions. Approval of this project is far-reaching for Napa County and sets precedent for hillside development, water issues, fire risks, land use and planning, and most importantly public safety.	I2-11

Barbara Guggia POB 2144 Yountville CA 95499

Letter I2	Barbara Guggia
Response	March 28, 2021

- **12-1** Napa County thanks the commenter for the Draft EIR comments provided. The comment describes the purpose and activities proposed with the project.
- 12-2 The commenter's opposition to the project as proposed is noted. Responses to the commenter's fire risk comments are provided in Global Comment Response 1 and Response to Comment I2-3. Responses to the commenter's traffic comments are provided in Responses to Comments I2-4 through I2-10.
- I2-3 See Global Comment Response 1. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant (see Final EIR Chapter 2, *Revisions to the Draft EIR*). This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project. See also Response to Comments I1-3 through I1-7, I1-9, I3-3, I3-54 through I3-63, I5-6 through I5-9, I5-15, I5-16, and O6-2 through O6-6.
- 12-4 The commenter's disagreement with the Draft EIR's transportation impact analysis and conclusions is noted. This disagreement, however, does not undermine the validity of the data or analysis in the Draft EIR, or the conclusions reached. The transportation analysis was performed using the methodology described in Draft EIR Section 3.10.3 (beginning on page 3.10-4) and environmental standards. It considers input received during scoping (Draft EIR Appendix B); reference materials cited on pages 7-11 and 7-12 of Draft EIR Chapter 7, *References*; and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 6, *List of Preparers*). Conclusions are based on facts and analysis, rather than opinions. Acknowledging the commenter's disagreement, Napa County chooses to rely on the data and other information and analysis documented in the Draft EIR.

As stated on page 3.10-1 of Draft EIR Section 3.10, *Transportation*, 24-hour traffic counts were collected on Soda Canyon Road on four days in fall 2019: October 4, 5, 11, and 12. These dates were selected by the County to represent a maximum level of vehicle activity on Soda Canyon Road based on the actual grape harvest period in 2019. The hourly traffic data were reviewed to determine the peak hour of traffic at the two count locations. These traffic data were used as a basis for the analysis of the proposed project's transportation impacts related to traffic circulation (Impact 3.10-1), which considered the proposed project's contribution to existing traffic volumes during the harvest, and the capacity of the roadway. The most labor intensive period for vineyards, generating the most traffic, is the harvest. This period typically extends for two to three

weeks within a two-month period from late summer into fall. Therefore, the Draft EIR accurately reflects a worst-case scenario for traffic conditions with and without the proposed project. A separate study examining peak commuting hours for vineyard works was not deemed necessary because the traffic counts (i.e., real data) described above were collected as part of the proposed project.

The proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions. As discussed on page 3.10-8 of Draft EIR Section 3.10, *Transportation*, the analysis of proposed project impacts considered the roadway geometrics of the existing driveway off Soda Canyon Road that would be used to access the private roadways within the project site. The Draft EIR concluded that sight distances are adequate to allow trucks and passenger vehicles to safely turn into and out of the driveway that leads to the project site.

- 12-5 The County acknowledges the commenter's concerns related to the existing functionality of Soda Canyon Road. The design of Soda Canyon Road relates to an existing condition and does not address the adequacy of the Draft EIR. As stated above in Response to Comment I2-4, the proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions.
- 12-6 The County acknowledges the commenter's concerns related to collisions on Soda Canyon Road. This comment refers to an existing condition, not the potential for the proposed project to result in an impact on traffic operating conditions on Soda Canyon Road; therefore, it does not address the adequacy of the Draft EIR. As stated above in Response to Comment I2-4, the proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions.
- **12-7** As described in Chapter 2, *Project Description*, of the Draft EIR, the proposed project includes the installation of erosion control measures and the development of additional vineyard acreage. The proposed project is exclusively vineyard development and ongoing operation and does not include any winery uses or tasting facilities that would otherwise generate vehicle trips associated with public marketing or visitation.
- 12-8 As stated on page 3.10-5 of Draft EIR Section 3.10, *Transportation*, the most laborintensive period for vineyards, generating the most traffic, is the harvest. This period typically extends for two to three weeks within a two-month period from late summer into fall. Therefore, the analysis of transportation impacts considers vehicle trips generated during the harvest, which includes passenger vehicles and grape-hauling trucks. Construction equipment that would be used during the entire 5.5-month vineyard development period is described in Draft EIR Section 2.5, *Project Description*. The proposed project includes minimal transport of heavy equipment to the project site, thereby reducing potential conflicts and impacts of project-related construction traffic. As stated on pages 2-9 and 2-10 of Chapter 2, *Project Description*, of the Draft EIR, all

equipment, except one D6 and one D9 bulldozer, is already on the adjacent property owned by the Applicant and would not require transport to the project site for project construction. Equipment transport to and from the project site is not expected to require any improvements to public roadways (i.e., Soda Canyon Road). See also Response to Comment I1-4.

12-9 As stated in Global Comment Response 1 and Response to Comment I2-3, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

All current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach EAP (Final EIR Appendix A). The EAP includes safety measures that would be implemented during an incident, including an evacuation plan and communication procedures and reporting and protocols for communication with management and emergency officials.

12-10 As stated in Draft EIR Table 2-3 and page 2-12 of Chapter 2, *Project Description*, annual harvest would result in the presence of approximately 34 workers and 12 passenger vehicles. The EAP includes preventive measures such as establishing and maintaining firebreaks around the perimeter of the property and establishing safe work zones as necessary; safety measures during an incident including implementing an evacuation plan, following communication procedures, and isolating and securing power and other ignition sources; and following reporting and communication protocols with management and emergency officials.

As stated in Global Comment Response 1 and Response to Comment I2-3, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

I2-11 The Draft EIR adequately assesses and discloses the potential environmental impacts of the proposed project in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and Napa County's Local Procedures for Implementing the California Environmental Quality Act (Napa County 2015). The commenter's request for a fire risk assessment and more comprehensive traffic study is noted. Information to address these issues is provided in Responses to Comments I2-3 through I2-10.

LETTER 13

Amber Manfree, PhD 3360 Soda Canyon Road Napa, CA 94558

Cell: (707) 758-0107 Email: admanfree@gmail.com

March 29, 2021

Donald Barrella, Planner III Napa County Planning, Building, and Environmental Services Department 1195 Third Street Suite 210 Napa, CA 94559

Re: Opposition to Stagecoach North Vineyard Conversion Erosion Control Plan Application #P18-00446-ECPA **Draft Environmental Impact Report**

Dear Mr. Barrella,

The proposed Stagecoach North Vineyard Conversion project would, if completed, create significant impacts on greenhouse gas emissions, traffic, wildfire risk, water, and biological resources that could not be mitigated. Due to these unavoidable impacts, the Draft Environmental Impact Report (DEIR) is inadequate, and the project should not go forward.

Generally, the findings of significance presented in this DEIR follow the reasoning that, because existing cumulative impacts are so severe, the additional pressure on natural resources and community safety caused by this project are not a big deal. This logic is faulty, and disturbing from an ethical standpoint. The assertions about levels of significance advanced by DEIR authors are opinions, not facts, and they are rarely supported by any credible data. Moreover, the tone of this DEIR in relation to the characteristics of this specific project site raise the question of where the line will be drawn in relation to incremental incursions against public health and safety, natural resource management, and trustee duties related to public trust resources.

Two critical topics relating to the level of significance of project impacts that are discounted almost entirely by the DEIR are climate change and wildfire risk. This omission can only be intentional, as the site is presently black with the soot of the 2020 LNU Complex megafire, fueled by severe conditions attributed to a changing climate. These omissions underscore the applicant's disregard for the impacts of their project.

Climate change is a pervasive condition that will affect every aspect of resource management long into the future. The importance of climate change is not limited to greenhouse gas (GHG) emissions, however, this DEIR only discusses climate change in that context. Discussions of climate change must be 13-4 completed for additional sections of this report including Biological Resources (3.3), Hazards and Hazardous Materials (3.6), Hydrology and Water Quality (3.7), and Land Use and Planning (3.8). Future

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climate change impacts for Napa County are reasonably well-understood and are of fundamental importance to both wine grape production and resource management. Without describing the impacts that climate change is likely to have on biota, for example, it is impossible to assess the full significance of the project's impacts.

I3-4 Cont.

Air Quality and Greenhouse Gas Emissions (3.2)

The proposed project would drastically reduce the potential for carbon sequestration on-site, and would become a source of net atmospheric CO_2 indefinitely. The subjects in this section requiring reconsideration include (1) the project lifetime, (2) the quantification of loss in carbon sequestration, and (3) a temporally paired comparison, by year, of net increases in GHG emissions relative to lost carbon sequestration potential.

A 30-year "project lifetime" is considered when analyzing GHG emissions in this report. A 100-year "lifetime" for this project, or longer, is more appropriate. This is demonstrated by adjacent Gallo-owned vineyards, which are nearing 30 years in age. There is no indication that these properties will be converted to any other use in the foreseeable future and, considering that the proposed new vineyard is allotted a 30-year "lifetime," we can infer that the older vineyards will be maintained at least that much longer. The short 30-year lifetime enables the impact assessment to omit critical quantifications of loss in carbon sequestration when vineyards are inevitably replanted.

In addition to the fact that vineyard is likely to be in place for many, many decades into the future, if and when vineyard operations cease, the land is unlikely to be restored to its past state. The nature of land cover change away from wildland can be expected to cause a permanent shift in the trajectory of use for the property under consideration.

Impact 3.2-5 GHG emissions

The DEIR fails to accurately and transparently quantify loss of carbon sequestration by the conversion of wildland to vineyard. Authors do not cite sources for assumptions made in their calculations, preventing readers from verifying claims about impact significance.

Scientific literature offers readily available estimates of carbon storage in chaparral and grassland. A summary of carbon cycling in chaparral is provided by Underwood et al. (2018), "Mature stands of chaparral can support 40–80 tons per hectare [16.2–32.4 tons per acre] or more of above-ground biomass (Rundel and Vankat 1989). Because chaparral stands continue to maintain high rates of productivity with age, even old stands remain significant carbon sinks (Luo et al. 2007)." Documentation for carbon storage in California grasslands is abundant, as well.

While carbon storage varies across locations distant from one another, temporary storage in vineyards tracks tong-term storage in adjacent wildlands proportionately, as quantified by Hollander et al. (2011): "above ground woody carbon stocks were greater in wildlands than in vineyards." Hollander and coauthors also found that, "Within-ranch soil organic carbon comparisons showed wildlands averaged 16% more carbon per hectare than vineyards." and they point out that, "Even the largest vines... had only about one-fourth of the woody biomass per hectare of the adjacent wooded wildlands."

An honest discussion and quantification of the impact of replanting vineyards on carbon storage is needed. Any gain in carbon sequestration from year-one of vineyard installation is negated at the time of a re-plant, so that vineyards, over timeframes appropriate for assessing impacts on GHGs, create no

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net gain in carbon storage. Carbon storage in vineyards is ephemeral, and thus the project will not res in long-term storage of any carbon. The DEIR needs to expressly acknowledge these conditions in orde to accurately address impact significance.	13-10
Side-by-side comparisons of annual wildland carbon sequestration vs. annual vineyard carbon sequestration, vineyard emissions, and the emissions generated by project operation are necessary fo accurately assessing potential project impacts. The current draft fails to include relevant scientific data quantifying carbon storage in chaparral, grasslands, and vineyards, and inaccurately portrays vineyard as sequestering carbon.	a I3-11
Vineyard life-cycle assessments of all GHG emissions are not included, and they should be. As stated be Strong (2010), "Three energy use and GHG emissions hotspots in the [wine grape production] lifecycle were identified: pesticide manufacturing, on-farm truck use, and field N ₂ O emissions associated with cover crops." Pesticides and cover crops are key GHG emissions associated with the proposed conversion in land use, and assessments need to be included in the environmental Impact Reporting process.	
Long commutes that workers are likely to undertake are not represented in this analysis. Housing in Napa County locations near the project site is financially unattainable for vineyard workers. They are likely to commute long distances (20 to 40 miles) to work each way. Most of these workers will be migrating seasonally from distant locations, and the carbon impact of that travel is similarly not addressed.	I3-13
This project violates the Napa County Policy CON-65, wherein, "The County shall support efforts to reduce and offset GHG emissions and strive to maintain and enhance the County's current level of carbon sequestration functions through the following measures: b) Preserve and enhance the value of Napa County's plant life as carbon sequestration systems to recycle greenhouse gases." The DEIR claims that it is "consistent" with these regulations. The project will, however, convert this site from a long-term carbon sink to a long-term carbon source.	
The early impacts of climate change are already with us. The proposed project does not contribute to solutions for this emergent threat, rather, it exacerbates the problem. Determinations of significance are based predominantly on opinion, and are not presented with adequate context about state-wide climate planning goals, or the urgency with which those goals must be pursued. If we are to stave off t worst impacts of climate change, it is imperative that projects like this are not approved, as they are steadily reducing the resilience of our climate-regulating systems.	the I3-15
Biological Resources (3.3) The DEIR fails to fully assess downstream impacts of the proposed project, and must do so in order to appropriately assess impacts. Several special status species reliant on high-quality aquatic habitat to persist, including rainbow trout (<i>Oncorhynchus mykiss</i>), foothill yellow-legged frog (<i>Rana boylii</i>), and California giant salamander (<i>Dicamptodon ensatus</i>), are present downstream, and potential impacts of their populations must be assessed in this report.	I3-16
The project site includes a blueline creek on the western side and is the headwaters for a blueline cree on the eastern side. Both are tributaries to Rector Canyon with confluences 1.5 miles and 2.4 miles fro	
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the parcel, respectively. Development and land use practices on this parcel affect conditions in Rector Creek, and must be assessed.

Rector Canyon features numerous large, deep plunge pools and groundwater-fed perennial flow providing habitat for a wide array of native species, particularly those that require undisturbed and high-quality habitat.

Rector Creek in the vicinity of the project site provides excellent salmonid habitat, with rainbow trout always present in reaches near confluences of blueline creeks associated with the proposed project. Rainbow trout require cool (15° - 18°C optimal), clear, fast-flowing permanent water and are sensitive to competition and predation by nonnative invasive species (Moyle 2002). They are negatively impacted by agricultural development.

Rainbow trout are persisting as a wild population in this creek both up and downstream of probable natural fish passage barriers in Rector Canyon, despite having been dam-locked since the 1950s. Historically, Rector Canyon was excellent steelhead habitat. Rainbow trout were stocked in the reservoir in the 1980's but no trout have been stocked there at least since 2001. There is evidence that they persist and reproduce in the reservoir (Manfred Kittel, personal communication). Rainbow trout in Rector Canyon, particularly the ones found upstream of natural barriers, may be a relict population genetically. Studies are pending. If they are a relict population, this would heighten their importance as sources for locally adapted genetics.

Rector Creek provides habitat for foothill yellow-legged frog, a special status species (table 1). The yellow-legged frog requires high water quality (similar requirements as rainbow trout), non-scouring flow conditions and absence of fine sediment while eggs and tadpoles are maturing, and is sensitive to predation and competition from alien invasive species such as bullfrogs (*Lithobates catesbeianus* or *Rana catesbeian*), crayfish, sunfishes, and black bass. Pesticides from the agricultural fields have been identified as a likely threat to this species. Habitat loss, increased susceptibility to disease due to worsening environmental conditions, introduced crayfish, and stream alteration are also threats. As amphibians, foothill yellow-legged frogs have a terrestrial phase and move into adjacent landscapes to forage seasonally. The creek bed of Rector Canyon near confluences of creeks draining the project site provide key reproductive habitat. In addition, foothill yellow-legged frogs may be found anywhere in the Rector watershed during the rainy season, so that direct impacts may occur on the project site.

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I3-19

Organization	Status Listing	Notes
NatureServe Global Ranking	G3	Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
NatureServe State Ranking	53	Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
California Endangered Species Act (CESA)	Various	Refer to source
California Department of Fish and Wildlife	SSC	Species of Special Concern
Bureau of Land Management	S	Sensitive
USDA Forest Service	S	Sensitive
IUCN	NT	Near Threatened

Table 1. Foothill yellow-legged frog conservation status (California Herps 2021).

Like foothill yellow-legged frogs, California giant salamander can be found anywhere in the Rector Creek watershed, as conditions allow. Habitat requirements and threats are similar to rainbow trout and foothill yellow-legged frogs. California giant salamander eggs are laid in ... "water-filled nest chambers beneath logs and stones or in crevices." (Nussbaum et al. 1983), and juveniles are a common in Rector Canyon. This salamander is predominantly nocturnal, and active in daylight during wet conditions. Terrestrial adults emerge from underground retreats to forage on rainy nights and during daylight in wet periods in winter.

 Table 2. California giant salamander conservation status (California Herps 2021).

Organization	Status Listing	Notes	
NatureServe Global Ranking	G3	Vulnerable: At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.	
NatureServe State Ranking	S2S3	Imperiled - Vulnerable	
California Department of Fish and Wildlife	SSC	California Species of Special Concern	
IUCN	NT	Near Threatened	

Broad-scale landscape conversion has already incurred negative consequences for the Rector watershed. Alien invasive species including bullfrog, sunfishes, and black bass are becoming increasingly **I3-21**

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abundant in Rector Creek. Presumably these fish species are moving in from vineyard ponds and irrigation facilities, and are benefitting from eutrophication likely caused by fertilizers in agricultural runoff. All of these species prey on and compete with desirable natives species such as rainbow trout, yellow-legged frog, Western toad (<i>Anaxyrus boreas</i>), California giant salamander, roughskin newt (<i>Taricha granulosa</i>), and California newt (<i>Taricha torosa</i>). These biological indicators demonstrate that agricultural practices are having significant negative impacts on aquatic biological resources, and the proposed project will add to these impacts. This should be reflected in project planning documents.	I3-21 Cont. I3-22
Species observed by project biologists are a small subset of species present at the site. While a comprehensive list would be ideal, for the sake of brevity, a few additional species with high likelihood of presence include porcupine (<i>Erethizon dorsatum</i>), coyote (<i>Canis latrans</i>), gray fox (<i>Urocyon cinereoargenteus</i>), California kingsnake (<i>Lampropeltis californiae</i>), Pacific ring-necked snake (<i>Diadophis punctatus amabilis</i>), Northern Pacific rattlesnake (<i>Crotalus oreganus oreganus</i>), slender salamander (<i>Batrachoseps attenuatus</i>), California salamander (<i>Taricha torosa</i>), yellow-eyed ensatina (<i>Ensatina eschscholtzii xanthoptica</i>), and arboreal salamander (<i>Aneides lugubris</i>).	13-23
Potential impacts on wide-ranging species that are likely present on the project site occasionally, such as bobcat (<i>Lynx rufus</i>), American black bear (<i>Ursus americanus</i>), cougar (<i>Puma concolor</i>) should be discussed.	
Black-tailed deer (mule deer; <i>Odocoileus hemionus</i>) once numbered in the hundreds on Rector watershed, and could be seen congregating in meadows every fall. While the attention to fence design with the inclusion of exit gates is noted, it is not meaningful when the standard practice for addressing deer found inside fenced vineyard blocks in Rector watershed is for vineyard workers to shoot them. The remoteness of the project location (and all vineyards in the watershed) makes enforcement unfeasible. The DEIR mitigation measures are not meaningful unless they include specific language explicitly committing the applicant to different practices going forward, and there is routine follow-up by the Napa County Planning department or other agencies. As a result of the practice of killing deer caught inside vineyard fences, deer have become vanishingly rare in Rector watershed. An honest discussion of depredation practices by vineyard managers to inform the assessment of impacts is appropriate in this DEIR. The installation of exit gates is a gesture, not a management practice with monitored or measured results, not an assurance that deer will be allowed to exit vineyards unscathed.	13-24
Project impacts on biological resources in contingency with climate change impacts are not assessed in the DEIR, and they should be. Impacts on biological resources are not happening in isolation. Climate change is understood to be reducing resilience in natural systems, and this project will further reduce this resilience.	13-25
The environmental impact report for the proposed project must provide an accurate assessment of impacts the project will have on above described special status species, species of interest, and relevant climate change conditions. By all measures, it is preferable to prevent destruction rather than rehabilitate damaged habitat, and that can only be accomplished with accurate and thorough impact assessments.	13-26
Hydrology and Water Quality (3.7) The DEIR fails to assess future precipitation in accordance with currently available science on climate projections for the region the project is located in. Paleoclimate history in the San Francisco Bay region	13-27

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is characterized by long-term precipitation regimes either higher or lower than average tending to last hundreds of years (Malamud-Roam 2007). Since the gold rush, we have been experiencing a wetterthan-average climate regime, but research indicates that we are now entering a drier climate regime. Characterizing the low precipitation totals observed in the past few years as a "drought" is most likely wishful thinking as we slip into a different climate reality (Williams 2020). In addition to overall drier conditions, climate change is expected to cause more extreme storm events in the near and long term. Precipitation will likely arrive in more intense downpours, increasing erosion and flooding (Swain 2018). Water budgets for the proposed project must reflect future conditions (not past conditions), as these are the parameters that it will operate under.

Appendix K reports well logs for four of 20 wells. The amount of water being extracted by just the four wells reported is tremendous - it would be enough to support hundreds of additional single-family residences. However, this is only 20% of potentially available data. All available data should be provided so that impacts can be accurately and fully assessed. Although the DEIR claims that well levels respond readily to infiltration following precipitation, all wells show an overall downward trend in levels. This is concerning, and it is not discussed. It appears as though well number seven didn't bounce back after the drought ended, which is also concerning and should be discussed.

The project site is located above a municipal water supply watershed. Potential impacts on municipal water supply should be assessed, and they should also be considered cumulatively. Given the 0.5 acrefoot (AF) per acre water demand provided in the DEIR¹, the ~1,750 acres of vineyard currently planted in the Rector watershed requires ~875 SF of irrigation, annually. A large proportion of this is attributed to about 670 acres of existing Gallo vineyard, creating ~335 AF/year water demand. Placing additional pressure on groundwater resources should be done with extreme caution, especially considering that recharge potential is likely to be lower in the century ahead. This DEIR fails to assess groundwater recharge and demand with appropriate context.

The contribution of vineyard access roads to erosion needs to be assessed. The project proposes removal of 116.2 acres of native vegetation and 91.3 acres of vineyard, The balance, 25.9 acres, or over 22% of the site, will be converted to unpaved (most likely bare earth) roads and turn-arounds. In the Impact Conclusion for section 3.7 [pp 238] authors state, "the project proposes to use existing roads" immediately after pointing out that, "Road systems can ... be a source of sediment production and delivery to the stream system." The site presently has two wells in the corner nearest to existing roads. The more northern section of "existing road" is presently no more than a rough trace mostly covered by brush. Vineyards are typically ringed, and sometimes bisected, by bare earth access roads. While these might not be considered "roads" from a traffic standpoint, they are certainly "roads" from an erosion control standpoint. The perimeter of proposed vineyard blocks totals **8.8 miles**, so it is safe to assume this project proposes to build about that many miles of new road. The erosion potential of those roads needs to be considered, and possibly mitigated.

Authors state that, "setbacks from waters described above would act as a filter reducing the potential for pollutants to reach both onsite and offsite drainages," yet separately claim that vineyard runoff carries less sediment than native vegetation cover. This logic is inconsistent. If a few remnant patches of native vegetation can filter pollutants to such a high degree, how could contiguous native land cover produce more erosion than a vineyard in its place? Also, there are no local data provided to support

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¹ Young grape vines require extra water to thrive, and more water is required to cultivate grapes during drought, so 0.5 acre-feet per year is not equivalent to maximum demand.

are highly dependent on local conditions, this claim should be varified with local data or striction from	13-32 Cont.
Elevated levels of sediment in the Rector Reservoir drinking water supply have been observed. Turbidity data are available for the Department of Veterans Affairs upon request, and should be included in this assessment.	13-33
The project applicant should be required to monitor runoff volume and water quality indefinitely to ensure that negative impacts are known and can be addressed. If erosion control measures are as effective as promised, the applicant should be glad to demonstrate their success.	I3-34
Transportation (3.10) Traffic conditions on Soda Canyon Road are presently very poor, and the proposed project will incur additional significant impacts that cannot be mitigated. The project proposes a permanent diminution of public safety and welfare of Soda Canyon Road users. The draft environmental impact report (DEIR) does not adequately assess conditions on Soda Canyon Road, and mischaracterizes the road substantially. The DEIR states, minimally, "In the project vicinity, Soda Canyon Road has moderate horizontal and vertical curves, and the speed limit is 25 miles per hour" and follows with, "Access to the project site is available via a private road accessed from Soda Canyon Road, which crosses an adjacent property owned by the Applicant, Gallo Vineyards Inc." Indeed, they cannot say much more without admitting that the road is already over-burdened with industrial use, such that public safety is frequently at risk. The portion of Soda Canyon Road maintained by Napa County is 6.1 miles long (measured from Silverado Trail to the turnoff onto the private road the applicant will use), narrow, with numerous blind turns, no shoulder in most of its length, occasional floods and dense fog, infrequent pull-outs, and a dead-end. The road has a one-mile grade snaking up the side of steep-and-deep Soda Canyon. The grade has sharp turns at both the top and bottom, and has a very steep section at the top where large vehicles frequently become disabled, due to the hazardous nature of their size relative to the conditions of the road. The 25 mph speed limit is observed by no one, ever. Although the entire length of the road has a double-yellow line, indicating to drivers that they should not cross the road center line for any reason, cars routinely drift over the line, sometimes at high rates of speed and on blind turns. The road is not engineered for industrial traffic, as it was initially built to serve a sleepy community of a few dozen families. A review of the reports from the Napa She	I3-35
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vers to maneuver them around turns without crossing into the on-coming traffic lane. Large vehicles a frequently disabled on the road, forcing other drivers to cross into the lane of oncoming traffic to ntinue on their way. Large vehicles are sometimes left at the pullout adjacent to the volunteer fire use, just below the grade, blocking emergency vehicles parked in the garage. Large vehicles are both a disance and a danger on Soda Canyon Road, and that reality should be reflected in the report.							
For several reasons, the representative nature of traffic data presented is poor. The time period where traffic volumes were measured includes four total days, with two of them being Saturdays. Worker traffic is very low on Saturdays, even during crush, and resident traffic is likely below average on Fridays and very low on Saturdays. Authors do not describe the method by which they measured traffic, or assess/discuss the absolute accuracy of numbers presented.							
Authors compare project-related traffic of 24 worker vehicles and 4 trucks to a ±5% daily variation in traffic volume. The project would, of course, generate a steady traffic increase of up to 4% above and beyond any normal variation, ratcheting up the traffic that existing road users contend with during all active farming periods throughout the year. The safety of existing users is already at risk, and this project will increase that risk in ways that cannot be mitigated.							
Authors claim that traffic during harvest activities would occur during off-peak traffic hours. The authors clearly do not live on Soda Canyon Road, or they would be well-aware that peak traffic hours on this road are entirely determined by vineyard workers' schedules. Drivers headed in the opposite direction as commuting vineyard workers typically encounter steady streams of 50 to 100+ cars during busy times of year, and accidents are common (see Appendix 1).							
Current vineyard area accessed via Soda Canyon Road is 2,115 acres, and vineyard erosion control permits are underway for an additional 447 acres of wildland to vineyard conversion, aside from the proposed Stagecoach North project. By numbers provided in the DEIR, 2.6 workers per acre are present during harvest. This would suggest that there are currently up to 5,499 total workers present during harvest, and many more are anticipated in the near future. Using the ratio of workers to trips presented in the traffic section of this DEIR (34:24), we can calculate the current number of vineyard workers and the one-way trips they make (5,499:3,882) as well as the amount that near-term development will produce (6,897: 4,868). Currently 1,784 acres of vineyard are planted above the Soda Canyon Road. Table 3. Evaluating transportation impacts by assessing labor required to farm existing and planned vineyard acreage on Soda Canyon Road shows that the traffic assessment presented in this DEIR is flawed. Vineyard acreage, workers required during harvest, and associated one-way trips based on numbers supplied by DEIR authors.							
Area Vineyard Acres Worke	rs One-way Daily Trips						
Stagecoach North 91.3 34	24						
2021 above grade 1,784 4,638	3 3,274						
2021 total SCR 2,115 5,499	3,882						
Near-future total SCR2,6536,897	4,868						

While it is unlikely that every vineyard harvests on the exact same schedule and that worker participation in carpools may be higher than DEIR authors allow in their calculations, the numbers move us closer to the realm of reality. They underscore that the traffic study presented in the report is not

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comprehensive or accurate. Based solely on their flawed traffic study, authors conclude that, "current traffic volume on Soda Canyon Road is approximately 47 percent of practical capacity [re: 5,000 vehicles/day] near Silverado Trail and approximately 13 percent of practical capacity near the driveway leading to the project site (comparable to the "2021 above grade" row in the above table, or 3,882 trips).

Traffic thresholds are inappropriate, because they rely on generalizations and not specific local conditions. Ironically, report authors state that a "General rule-of-thumb estimates are that two-lane rural roadways have a capacity of at least 5,000 vehicles per day" before summarily dismissing traffic concerns with a series of "less than significant" findings. One can only imagine that this "rule of thumb" applies to flat, straight roads that are also through-roads such as those found in California's Central Valley farming communities or in the Midwestern Unites States, particularly when large swaths of agricultural land and their attendant services are involved. It certainly is not an appropriate threshold for traffic volume on a narrow, steep, winding mountain road with already unacceptably dangerous conditions. And in any case, if all development currently in the pipeline at Napa County Planning Department is approved, Soda Canyon Road will meet this wicked threshold in short order - an even stronger argument against the approval of this proposal.

Authors vaguely mention a "driveway leading to the project site." It is not a driveway, but rather a onelane private road shared by over 25 families, and servicing hundreds of acres of vineyard not owned by Gallo. The vineyard site is at the end of 3.5 miles of one-lane, mostly dirt road with few pull-outs, crossing a bridge that floods in major storm events. The "Left Fork" of Soda Canyon Road is in no way suited to handle additional traffic. Gallo does not own the entire road used to access their properties, as the DEIR insinuates. There are, at minimum, 0.7 miles of road not owned by Gallo, for which they rely on property easements held by various land owners to pass. Adding traffic to the County-maintained portion of Soda Canyon Road is a bad idea, and adding traffic to this private, shared, one-lane dirt road is even worse. During peak traffic, residents are routinely run off the road onto tiny pull-outs while workers determinedly drive past them in long lines of cars. A resident can be forced to wait 15 to 20 minutes or more, as the road is not suited for current traffic volumes. Similarly, two-way traffic with trucks and heavy equipment transport vehicles is extremely unsafe on this section of road. It is important to note that residents do not desire road widening or hardening (e.g., chip-seal and speed bumps were added by Gallo against the wishes of many residents). Residents prefer development commensurate with existing road conditions.

The DEIR completely fails to describe existing conditions in its Environmental Setting section, and even contradicts its own conclusions with numbers provided. Incident information from Napa Sheriff's Department, CHP, and CalFire should be included. More detailed data from the traffic study should be provided - including hourly totals for each day where data are available, especially including traffic counts spanning Monday through Thursday, when volumes are likely highest. Information on road engineering, current condition, and maintenance schedule, from the Napa County Transportation Department, should be included. How big are the grape trucks that will be used for hauling, and how heavy will they be when they maneuver down the grade, laden with grapes? How much wear-and-tear will construction and operational traffic cause on County roads? Who will pay for repairs? The report needs to mention that this is a dead-end road - that is an incredibly important point. Impacts on existing road users should be assessed in far greater detail, so that their significance can be fairly assessed.

In section 2.3 [pp 47], this DEIR states that the project will "provide opportunities for additional vineyard employment and economic development in Napa County," implying that these impacts are large enough 13-49

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to be beneficial to the county's enormous economy will meaningfully contribute to employment opportunities in an county which already has 50,680 acres of vineyard. In the traffic section, 24 daily one-way trips by workers in passenger vehicles and four one-way grape truck trips per day during harvest are dismissed as "less than significant," even though the relative increase in traffic (28:664) would be a far greater than the relative number of comparable jobs added to the economy (34:131,800) The relative impact of employing 34 seasonal workers to harvest 91 acres in a county with 50,700 acres of vineyard is miniscule. The authors have confused the relative importance of these impacts. Traffic matters a lot to existing users, while a handful of seasonal jobs that don't pay particularly well, thus requiring workers to commute great distances as housing is extremely unaffordable in Napa, are really more of a drawback than a benefit to the community at large. Speaking of commuting, workers do not live at the intersection of Silverado Trail and Soda Canyon Road. Additional pressure is added throughout the county with every wildland to vineyard conversion project built.

The transportation section concludes with a series of four "Less than significant" findings. At least two of these findings are incorrect. This project will result in significant, unmitigated impacts which will further compromise "safe and efficient movement" and "adequate service" (3.10-1), and adequate emergency access (3.10-4) for all the reasons described above. Considerations relating to emergency access are also discussed below in the "Wildfire" section.

Cumulative Impacts (4.1)

The cumulative impacts assessment area should include a traffic analysis covering the entirety of Soda Canyon Road. At present, the area includes only about one mile of the 6.1 mile stretch that this project will impact. Soda Canyon Road is a narrow and poorly maintained dead-end rural road which is the only access route for the project.

The aquatic invaders listed in Biological Resources comments (above) are indicators of habitats that have been degraded and/or are in close proximity to extensive development. The appearance of aquatic invaders in Rector Canyon indicates a tipping point in environmental quality, and suggests that the ecosystem is becoming less resilient. This would mean that impacts of new activities have relatively more impact than the same activities would if the system were not already damaged. The cumulative impacts section should accurately reflect how the proposed project will add to existing pressure on biological resources of the system.

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Wildfire

This DEIR declines to assess wildfire risk, despite five catastrophically large fires having burned in close proximity to the site in the past four years (2017 Atlas, 2017 Nuns, 2018 County, 2020 LNU Complex, 2020 Glass Fire). Fire risk is the single biggest reason this project should be rejected and the fact that it is not assessed at all shows disregard for community safety by the applicant.

About 95% of California wildfires are caused by human activity. This project will increase fire ignition risk due to the operation of mechanical equipment, the storage of fuel and chemicals, the burning of brush during development, burning of vines during replants, and by increasing the presence of humans. Vineyard development in upper Soda Canyon has resulted in the establishment of illegal marijuana grows in adjacent wildlands, including locations accessible only through Stagecoach vineyard parcels. While not intended by the developer, this accompanying use is impossible to separate from the initial development as the conversion of wildlands to vineyard will bring more people into this remote location, which lacks the presence of law enforcement, again increasing the risk of wildfire.

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The proposed project DEIR indicates that 34 workers per day will be required to work the 91.3 acres of vineyard at harvest time, which coincides with peak fire season (September and October). Extrapolating from the numbers supplied in the DEIR (2.6 workers per acre during harvest), considering current vineyard acreage (2,115 ac) and acreage with vineyard erosion control permits pending (447 ac) accessed by Soda Canyon Road, that would mean that, including the proposed project, 6,897 workers

² Napa County has begun to explore the installation of fire sirens, and has identified 29 prospective sites, however none are proposed in the upper Soda Canyon area. The closest sirens are proposed on Silverado Trail, miles away, on the other side of Haystack Mountain and Stag's Leap Mountain, which will block sound.

can be expected to be present on properties accessed by Soda Canyon Road during harvest on weekdays in the near future. If a fire were to break out during harvest, that would mean there would be an additional 6,897 evacuees above and beyond the average daily number of residents and workers. Per applicant's estimate of 0.7 cars per worker, this translates to as many as 4,868 worker vehicles. Current fire safely conditions, with thousands of workers present during high-risk periods, no comprehensive warning system, and a narrow, steep, winding road, are already completely unacceptable from a public safety standpoint, and the proposed project will only compound them. Any increase to existing levels of risk is reckless.

Impacts of fire on community safety have not been considered in this DEIR. Due to safety risk associated with the 2017 Atlas and 2020 LNU Complex fires, residents endured lengthy road closures, having to choose between leaving their homes without adequate fire crews in the area, or staying and defending their property without being able to leave for food or equipment. The roads were closed to allow emergency and work crews to do their jobs with minimal interruption. As the fires were during harvest season, and as the crop value is high, the exception to the road closure rule was workers driving in to pick grapes and large trucks hauling them down to processing facilities. This was not a good situation logistically for first responders or PG&E crews, who had to share the narrow, steep, and winding road with hundreds of workers and large trucks hauling many tons of fruit while conducting emergency response. Again, the conditions are already unacceptable and this project will exacerbate them.

Vineyards are not always fire breaks. Fires have burned whole vineyards and have burned completely around many others in Napa and Sonoma counties since 2017. Grapevines are subject to drought stress, and are especially at risk of carrying fire across a landscape when they are located at the edge of wildlands. The project parcel is surrounded on three sides by wildland and the proposed habitat corridors will also be corridors for fire. The proposed project has no basis for being considered as a fire prevention measure. To the contrary, it will become yet one more remote asset that oft-understaffed fire crews are expected to defend.

Increasing fire risk at this site increases risk to the wine industry, generally. For vineyards that survived fires, smoke taint in wine grapes was a common issue. Grapegrowers in the Atlas Peak AVA had crops rejected by buyers (Odyssey, Antica, likely others). The 2020 fires led to a 40% overall drop in Napa Valley wine production (California Department of Food and Agriculture). To quote an E & J Gallo spokesperson, speaking to The Drinks Business, "…while a fire can be put out, the damage to wineries can linger long after the smoke has dissipated."

Global climate change, in tandem with a shift to a warmer and drier climate period in California, is predicted to continue to increase fire risk severity and lengthen the fire season throughout Napa County (Westerling 2008). In the century ahead, we can expect the kinds of hot, dry, windy conditions that produce large wildfires to increase in frequency. It is unlikely that humans will be able to better control fires occurring in extreme conditions going forward. The only near-term points of leverage that could meaningfully limit wildfire risk are reducing ignitions and forgoing development in areas likely to burn.

It is important to note that wildfire itself is not the problem. Rather, the problem is that developers and planners continue to ignore wildfire risks, building and developing in locations which have a high probability of burning, and where human presence drastically increases the likelihood of fire ignitions. The project site is exactly such a location, at the interface of wildland and agricultural development, located at the end of a 6-mile dead-end county road and a three-mile dirt road. Emergency service response times are terrifically slow in this location.

I3-56 Cont.

13-58

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13-59

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I3-61

In 2020, the Mountain Peak Winery proposal was remanded to the Napa County Board of Supervisors by the courts for its failure to adequately consider fire risk. Both Stagecoach North and Mountain Peak Winery projects exacerbate fire and safety risks by increasing trips on Soda Canyon Road, increasing the number of people present in this remote location, and adding opportunities for fire ignition.	I3-62
Due to the severity of fire risk, the immense consequences of contemporary fires, and climactic conditions that are expected to increase catastrophic fires in the foreseeable future, even a small increase in risk is unacceptable. This project should be denied. And it most certainly must address wildfire risks in its Environmental Impact Report.	I3-63
Other DEIR Oversights Proposed blasting of over one acre acres of rock outcrops and relocating debris may qualify this project for compliance with Surface Mining and Reclamation Act of 1975. Under this act, projects which disturb more than one acre, or remove more than 1,000 cubic yards of material, including quarrying, are subject to reclamation rules. Converting native land cover to vineyard in the Sonoma Volcanics geologic formation typically produces an enormous amount of rock, on-par with mining impacts. This potentially relevant regulation should be considered in this report.	I3-64

In conclusion, this DEIR is insufficient in numerous sections, and does not correctly or adequately assess potential impacts of the proposed project. Thank you for considering my comments on the Gallo Stagecoach North Draft Environmental Impact Report. I look forward to your reply, and am available for questions and additional references.

AMBER MANFREE

Amber Manfree

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Appendix 1

APPELLANTS' SUPPLEMENTAL INFORMATION Appealing Mountain Peak Winery: P13-00320-UP (Appellants Kosta Arger, Cynthia Grupp, William Hocker, Glenn Schreuder)

April 3, 2017

Office of Napa County Counsel Attn: Laura J. Anderson, Deputy County Counsel 1195 Third Street, Suite 301 Napa, CA 94559-3035 *Via Email*: laura.anderson@countyofnapa.org Napa County Clerk of the Board's Office Attn: Gladys Coil 1195 Third Street, Suite 310 Napa, California 94559 Fax: (707) 253-4421 *Via Email:* gladys.coil@countyofnapa.org

I. INTRODUCTION

On March 6, 2017, Ms. Belia Ramos, Chair of the Board of Supervisors of the County of Napa ("Chair Ramos"), County counsel, counsel and representatives for Mountain Peak Winery (the "Applicant" or "Project"), and counsel and representatives for Appellants Kosta Arger, Cynthia Grupp, William Hocker, Glenn Schreuder (collectively "Appellants") held a pre-hearing conference ("Conference") to discuss standards and procedures relating to Appellants' appeal of the Project ("Appeal"). During the Conference, Chair Ramos and County counsel indicated that all "supplemental" information – that is, information pertaining to items and issues already raised – relating to the Project must be provided on or before April 3, 2017.

The supplemental information contained within and attached to this letter ("Supplement") relates to items and issues already raised by Appellants and other Opponents of the Project prior to the Planning Commission's approval of the Project, all of which was discussed and/or referenced in the Appeal.¹ Broadly, this Supplement addresses and provides supplemental information relating to: (A) adverse impacts of the Project on the public safety and welfare of all Soda Canyon Road users, (B) adverse environmental impacts posed by the Project, (C) comparative winery analyses conducted by the Applicant, the County, and Project Opponents, and (D) impacts of the recent news regarding the sale of Stagecoach Vineyards to E. & J. Gallo Winery ("Gallo Winery") on Mountain Peak's unsupported grape tonnage figures and production capacity.

In combination with all of the evidence and information already in the administrative record, the supplemental information contained herein leaves no doubt that the Planning Commission committed a prejudicial abuse of discretion when it determined the Project "will not have a significant effect on the environment," adopted a Negative Declaration ("ND"), and approved the Project for a: (1) 100,000 gallon per year (gpy) winery, (2) construction of 33,424 square feet (sf) of caves, (3) a marketing program that permits 14,575 annual visitors, and (4) an exception to the Napa County Road and Street Standards (RSS) to increase the maximum slope for a portion of the commercial and employee access road from 16% to 19.6%.

¹Appellants are also referred to as "Opponents," which includes all individuals/entities opposing the Project.

II. SUPPLEMENTAL INFORMATION

A. Adverse Impacts on the Public Safety & Welfare of Soda Canyon Road Users

Under Napa County Code ("NCC") section 18.124.070(C), the Planning Commission or Board of Supervisors "*shall* make" a written finding that "[t]he grant of the use permit, as conditioned will not adversely affect the public health, safety or welfare of the county." (emphasis added). As described in the Appeal, while the County did make an initial finding that the grant of the Mountain Peak use permit, "as conditioned, will not adversely affect the public health, safety or welfare of the County of Napa," *see Recommended Findings Planning Commission Hearing – January 4, 2017* at p. 3, such a finding is limited to "the proposed driveway, grading, drainage, the proposed septic system, parking, building permits, and fire protection," and appears to give no consideration whatsoever to the health, safety and welfare impacts of this project on the County or its residents, property owners, or visitors anywhere other than on the Project site itself.

In other words, the Project was evaluated in a vacuum and no consideration of the adverse impacts of this Project appears to have been given to other residents and property owners on Soda Canyon Road (or roads accessed by Soda Canyon Road), as well as any and all current and future users and visitors of Soda Canyon Road, which is required under NCC section 18.124.070(C) because all such individuals are within the "County of Napa."

Opponents of the Project have provided the County of Napa ("County") with numerous pieces of information regarding the existing dangerous conditions on Soda Canyon Road. Below and attached as exhibits are several pieces of supplemental information that further demonstrate that Soda Canyon Road, *under* existing *conditions*, is extremely dangerous and the addition of approximately 45,000 car trips, and thousands more commercial vehicle trips per year by Mountain Peak Project will severely exacerbate the abysmal existing conditions and pose a further threat to the public health, safety and welfare of the County.

1. Updated Sheriff's Calls for Service on Soda Canyon Road

Updated reports from the Napa County Sheriff's office for Soda Canyon Road further confirm the treacherous and incident-prone area in which Mountain Peak seeks to build its winery event center. Attached to this letter is an updated summary of "Calls for Service" from the Napa County Sheriff's office from January 9, 2014 to March 6, 2017.² (*See* Exhibit 1). Also attached are copies of the actual, updated Napa Sheriff's reports.³ (*See* Exhibit 2). *During that period of just three years and two months, there have been 498 "Calls for Service" on Soda Canyon Road*. This is an average of 13 calls per month and 157 calls per year, and that is just for the Napa

²Anthony Arger, Esq., attorney for Appellants compiled the original and the attached, updated summary reports from the Napa Sheriff's Department, the California Highway Patrol, and the California Department of Forestry and Fire. As with earlier summaries from these same agencies, Mr. Arger, as an officer of the court, declares under penalty of perjury under the laws of the State of California, that these summaries accurately reflect what is contained in the much longer, more detailed reports from each of the respective agencies.

³The attached copies of the Sheriff's Reports contain a stamp precluding duplication of the reports. However, Lauran Griffiths, the individual who obtained the reports from the Napa Sheriff's Department, received authorization to duplicate the reports for purposes of this Appeal.

Sheriff's Department. Importantly, the vast majority (366 of 498) took place during the daytime hours, which is precisely when the Applicant seeks to introduce the bulk of its additional traffic in the form of winery employees, wine-imbibing tourists, and other winery patrons to the road. A summary of these calls for service on Soda Canyon Road is as follows:

Brief Summary of Sheriff Calls for Service on Soda Canyon from Jan. 2014 to Mar. 2017

Total Number of Calls (1/9/14 to 3/6/17): 498 911 Hangup Call (CODE11): 40 **Abdominal Pain (ABDOM): 3** Agency Assist (AA): 3 Alarm (1033): 22 **Animal Control Callout (ASO): 73** Area Check (ACK): 3 Assault (ASSAU): 4 Attempt to Contact (ATC): 3 Barking Dog (1091B): 1 **Bite Animal Human Insect Reptile (BITE): 1 Bleeding Problem (BLEED): 1 Breathing Problem (BREATH): 2 Burglary (459): 4 Chest Pain (CHEST): 6** Choking (CHOKE): 1 Citizen Assist (CA): 10 **Civil Problem (CIVIL): 2** Coroner Case (1144): 3 **Disturbance of the Peace (415): 12 Drug Activity (DRUG): 2 Drunk Driver (23152): 28** Elder Abuse (EABUS): 2 **Embezzlement (EMBEZ): 1** Follow Up (FU): 25 Found (FOUND): 2 Fraud (FRAUD): 4 Garbage Dump (GDUMP): 2 Grand Theft over \$400 Loss (487): 3 Harassment (HARASS): 1 **Hazardous Condition (HAZCON): 2** Lost (LOST): 1 Mail Tampering/Theft (MAIL): 7 **Medical Needed (MEDIC): 8** Motorist Assist (MA): 2

Napa County Ordinance Violation (NCO): 1 Neighbor Problem (NPROB): 2 **NSIB Event (NSIB): 2 OCR: 1 Overdose (OVERD): 2** Patrol Check (PCK): 16 Patrol Info (PATROL): 31 Ped Check (PEDCK): 3 Person Down (PDOWN): 2 Petty Theft under \$400 Loss (488): 7 Phone Message: 1 Probation/Parole Search (SEARC): 3 Prowler (1070): 1 Reckless Driver (RECK): 19 Security Check (SCK): 1 Seizure (SEIZU): 5 Shots Fired (SHOTS): 4 Sick Person (SICK): 3 Stolen Vehicle (10851): 1 Stroke (STROK): 1 Suicide (1056): 1 Suspicious Situation (1030): 20 **Traffic Collision (TC): 13** Traffic Hazard (1125): 7 Traffic Stop (TS): 13 Trauma (TRAUM): 2 **Trespassing (TRES): 30 Unconscious Person (UNCON): 1** Vandalism (594): 6 Vehicle Check (VCK): 11 Welfare Check (WCK): 4

Daytime Incidents (6am-6pm): 366 Nighttime Incidents (6pm-6am): 132

2. Updated California Highway Patrol Reports for Soda Canyon Road

Updated reports from the California Highway Patrol ("CHP") provide additional insight and evidence into existing public safety issues and concerns on Soda Canyon Road, including at the intersection with Silverado Trail.⁴ Attached to this letter as **Exhibit 3** is an updated summary of the CHP Incident Reports from January 21, 2013 to March 22, 2017. Also attached as **Exhibit 4** are the individual incident reports from which the summary was compiled. Notably, *30 of the 65 incidents reported by the CHP during the roughly four-year period of reports provided have occurred during the last year* (between April 6, 2016 and March 22, 2017). This indicates that the *existing, increasing traffic levels on or near Soda Canyon Road have already led to a significant increase in the number of incidents that regularly occur on the road*. Furthermore, the vast majority of the incidents (43 of 65) took place during the daytime, precisely when the Applicant seeks to add tens of thousands of additional drivers, many of whom will have consumed alcohol, to the road on an annual basis.

Brief Summary of CHP Incidents on/near Soda Canyon from Jan. 2013 to Mar. 2017

Fotal Number of Incidents: 65	
Number of 2 car collisions: 9	Abandoned Vehicle: 2
Number of 1 car collisions: 15	Parking Violation: 1
(i.e. into tree, ditch, pole, etc.)	Shots Fired: 1
Traffic Hazards: 6	Hit & Run: 2
Reckless Driving: 7	Take a Report: 1
Animal in Roadway: 1	Unidentified: 1
Driving Under the Influence: 13	
2 Car Speed Contest: 1	Daytime Incidents (6am-6pm): 43
Fire: 3	Nighttime Incidents (6pm-6am): 22
Semi-Trucks Stalls/Accidents: 2	

3. Updated CalFire Reports for Soda Canyon Road

Updated reports from the California Department of Forestry and Fire Protection ("CalFire") further reveal that there are serious, existing public safety issues and concerns on Soda Canyon Road. Attached to this letter is an updated summary of the CalFire incident reports from January 29, 2007 to December 20, 2016.⁵ (*See* Exhibit 5). Also attached to this Supplement are the additional, individual CAIRS incident reports from which the updated summary was compiled. (*See* Exhibit 6). Similar to the Sheriff's and CHP reports, the majority (122 of 181) of all the CalFire incidents occurred during the daytime, which again is when the Applicant seeks to introduce the vast majority of additional traffic that will be created by the Project.

⁴Note that the Napa County Sheriff has primary jurisdiction over Soda Canyon Road and accordingly has the much larger record of the accidents and incidents that occur annually on Soda Canyon Road. Nonetheless, CHP still responds to calls for service on Soda Canyon Road, and particularly at the intersection with Silverado Trail.

⁵Incident reports provided by CalFire typically run a three-month lag, meaning that while Appellants recently requested updated CalFire reports, the provided reports only run through December 2016 and do *not* include any incidents from the first three months of 2017, during which there have been several incidents responded to by CalFire. Moreover, Appellants are still waiting for additional CalFire incident reports for Soda Canyon Road from 2008, 2009, 2010, and 2013, as the initial set of reports included only six incidents from 2008, ten incidents from 2010, and three incidents from 2013 (contrast to 62, 58, and 74 incidents in 2014, 2015, and 2016, respectively), and thus it does not appear to fully respond to the public records act request. Appellants will distribute any updated CalFire reports and incidents as soon as they become available.

Brief Summary of CalFire Incidents on Soda Canyon from Jan. 2007 to Dec. 2016 Total Number of Incident Calls/Responses: 181* Number of Calls/Incidents for Medical/EMS: 81 Number of Calls/Incidents for Residential Fires: 13 Number of Calls/Incidents for Wildland Fires: 20 Number of Calls/Incidents for Reported Fires/False Alarms/Smoke Checks: 32 Number of Calls/Incidents for Traffic Collisions: 11 Number of Calls/Incidents for Hazmat/Hazardous Condition: 10 Number of Calls/Incidents for PA/Other/No-Description: 15

Daytime Incidents (6am-6pm): 122 Nighttime Incidents (6pm-6am): 59 *Does not include all 2008, 2009, 2010, or 2013 incidents (see footnote above)

4. Analysis of Combined Incidents & Accidents on Soda Canyon Road

To provide an even better picture of existing incidents and accidents that occur on Soda Canyon Road, it is instructive to analyze the total number of incidents from each agency over the period of time during which the reports overlap, which is from January 2014 through December 2016. (*See* Exhibits 1, 3, and 5). Such an analysis is important for the Board of Supervisors to consider because it prevents piecemeal analyses and conclusions that could be drawn from only looking at a single agency, for example the CHP, which has a relatively low number of incidents as compared to the Sheriff's Department. A summary of the total number of combined agency incidents is as follows:

<u>Combined Agency Incidents January 2014 – December 2016:</u>

Sheriff's Department:

Daytime Incidents (6am-6pm) 2014-Present: 360 Nighttime Incidents (6pm-6am) 2014-Present: 129 Total Sheriff's Department Incidents 2014-2016: 489

CHP:

Daytime Incidents (6am-6pm) 2014-Present: 31 Nighttime Incidents (6pm-6am) 2014-Present: 21 Total CHP Incidents 2014-2016: 52

CalFire:

Daytime Incidents (6am-6pm) 2014-Present: 63 Nighttime Incidents (6pm-6am) 2014-Present: 34 Total CalFire Incidents 2014-2016: 97

Grand Total Daytime Incidents 2014-2017 (All Agencies Combined): 454 Grand Total Daytime Incidents 2014-2017 (All Agencies Combined): 184 Grand Total Incidents 2014-2017 (All Agencies Combined): 638

In summary, a review of the reports from the Napa Sheriff's Department, CHP, and CalFire confirm that Soda Canyon Road is not a quiet, uneventful road. In fact, it is quite the contrary. As is evident from above, over the course of just three years, from January 2014 to December 2016, there have been a total of 638 reported incidents and accidents on Soda Canyon Road. That is an average of 212.67 (rounded to 213) reported incidents and accidents per year, 17.7 (rounded to 18) reported incidents per month, and 4 reported incidents per week on Soda Canyon Road over the three-year period. Furthermore, the vast majority of the incidents (454 of 638) took place during the daytime hours, precisely when the Applicant seeks to add tens of thousands of annual drivers to the road in the form of winery employees, wine-imbibing tourists, vendors, contractors, and other normal patrons of a large-scale commercial operation such as this one. Yet, the Planning Commission's adopted findings appear to have given no consideration whatsoever to the increasing number of accidents on Soda Canyon Road, and instead focused solely on the Project site itself, effectively ignoring the public safety and welfare of all users of Soda Canyon Road. Given the Project's location 6.1 miles up the dead-end Soda Canyon Road, it was a complete abuse of discretion and a violation of local and State laws regarding the public safety and welfare for the County to have considered only the Project site, as opposed to the entire road, as it relates to the Project's impacts on the public safety and welfare. This Project, particularly considering its remote and rural location, cannot be considered in a vacuum. Soda Canyon Road, under current conditions, is a dangerous road. If the Project is permitted to move forward in its current form, it is very likely that the already large number of annual incidents on the road will increase dramatically, which is not only a serious threat to the public safety and welfare, but could expose the County to significant liability in the event of any accident resulting in serious injury or loss of life. (See California Government Code, § 835; see also Anthony G. Arger Opposition Letter re: Mountain Peak Winery (Use Permit #P13-00320-UP) dated July 19, 2016; Anthony G. Arger Supplemental Opposition re: Mountain Peak Winery (Use Permit #P13-00320-UP) (collectively, "Arger Opposition Letters")).

5. December 15, 2016 & January 8, 2017 Flooding of Soda Canyon Road

En route to the Project site at the end of Soda Canyon Road, the road ascends steadily and becomes extremely steep for an approximate one-mile stretch beginning around the 4.1-mile mark. As a result of the steepness, even a small rainstorm can lead to flooding of Soda Creek very quickly, which at many points along the road, has and will cause flooding. Particularly vulnerable parts of the road are (1) the hairpin turn at mile 3.95 and (2) the lower portion of the road near the 1.10-mile mark, both of which are well below the proposed Mountain Peak site. And, with rainstorms and flooding comes mudslides, of which there have also been many, some of which have closed the road for several days at a time.

Flooding and mudslide events on Soda Canyon Road relate to public safety and welfare because Soda Creek begins near the top of the steep hill on Soda Canyon Road and follows the road for the majority of the way down, meaning that the addition of Mountain Peak Winery employees and especially the potentially inebriated winery tourists who have no familiarity with road and its dangerous conditions, increase the risk of danger to residents, property owners, and other users of the road alike. Photos of such events and incidents have already been provided to the County. *See July 29, 2016 and January 4, 2017 Planning Commission Hearings* (collectively, *"MPW Hearings"*); *see also Arger Opposition Letters*.

At the January 4, 2017 hearing before the Planning Commission, two videos of the December 15, 2016 flooding on Soda Canyon Road were presented. Attached to this Supplement are additional photos and videos showing the December 15 flooding on lower Soda Canyon Road, as well as a video of flooding that took place on Soda Canyon Road on January 8, 2017. (*See* **Exhibits 7a-b; 8**; and **9**, respectively).⁶

6. Summer 2016 Video of Double Tanker Truck Going up Soda Canyon

In the MPW Hearings, and in various opposition letters, Opponents of the Project have repeatedly brought up the types of large, commercial trucks that frequent Soda Canyon Road, and the dangers those trucks pose to drivers on the road as a result of the narrow, steep, and serpentine configuration of the road. This is particularly true on the steepest part of the road between the 4 and 5-mile marks because there are *no guardrails* to prevent vehicles from going off the road and into the canyon. Attached to this Supplement as **Exhibit 10** is a video of a double tanker truck heading up the steepest part of Soda Canyon Road, which is before the Mountain Peak Project site.⁷ It does not take much imagination to envision how one wrong move by the driver of either truck in the attached video could quickly lead to devastating consequences, especially at this point in the road where there are no guardrails to prevent cars from going off the cliff and into the canyon. In fact, there have been numerous accidents on Soda Canyon Road involving large trucks, resulting in complete blockage of the road for hours at a time. (*See* Exhibit 3 – CHP Summary Report at September 10, 2014 where a semi-truck overturned on the steepest part of the road and blocked all traffic for more than 5 hours).

The existing commercial truck traffic on Soda Canyon already poses serious risks to the public safety and welfare given the nature of the road; permitting Mountain Peak to add tens of thousands more car, truck, and other commercial vehicle traffic on an annual basis to this deteriorating and poorly constructed road will result in increased incidents and accidents that could expose the County to significant liability. (See Arger Opposition Letters; see also July 18, 2016 Mountain Peak Winery Initial Study/Proposed Mitigated by Smith Engineering & Management (hereinafter "Smith Engineering Traffic Peer Review")).

7. November 4, 2016 Traffic Collision on Soda Canyon Road

Attached as **Exhibit 11** are photographs from the aftermath of yet another accident on Soda Canyon Road that occurred on November 4, 2016 near the two-mile mark. It appears that the Napa Sheriff's Department responded to this accident. (*See* **Exhibits 1 & 2** – Sheriff's Reports, confirming the date and time of accident).

⁶All video exhibits "attached" to the paper copy of this Supplement are merely placeholders; a flashdrive provided to the County in conjunction with this Supplement contains all of the actual video files. The **Exhibit 8** and **9** videos are also available on youtube at <u>https://youtu.be/OEL4VMOVuOU</u> and <u>https://www.youtube.com/watch?v=FzpaOmKdHNI&feature=youtu.be</u>, respectively).

⁷The Exhibit 10 video is also available on youtube at <u>https://youtu.be/Fj6gC8jO64U</u>.

8. January 26, 2017 Traffic Collision on Soda Canyon Road

Opponents of the Mountain Peak Project have provided numerous, specific examples of accidents, both reported and *un*-reported,⁸ that have occurred on Soda Canyon Road in recent years. On January 26, 2017, there was yet another accident on Soda Canyon Road, which involved a single car just past the 2.25 mile mark on the road. Attached as **Exhibit 12a-c** are photographs of the accident. (*See also* **Exhibits 1 & 2** – Sheriff's Reports, confirming the date and time of accident). In addition to providing further proof of how often incidents and accidents already occur on Soda Canyon Road, the position of the car off the roadway demonstrates how much speed cars and trucks alike carry on the road, and how dangerous that speed can be, even without unfamiliar tourists consuming alcohol at the very end of the road, due to the serpentine configuration of the road.

9. March 25, 2017 Bus Breakdown on Soda Canyon Road

The Applicant has indicated to the County and Opponents of the Project that the traffic impacts of 14,575 visitors per year will not be as severe because many visitors will travel in groups and utilize shuttle/limousine services. However, as pointed out by Project Opponents, Soda Canyon Road becomes so steep for approximately a one-mile stretch beginning around the 4.1-mile mark that many shuttles, and even large trucks, *literally cannot make it up the hill*. Over the years, innumerable trucks and buses have stalled, overheated, and otherwise been unable to make it up the steep grade, for which Opponents provided several specific examples. (*See MPW Hearings; Arger Opposition Letters*). On March 25, 2017, yet another bus carrying tourists stalled around the 4.3 mile mark on Soda Canyon Road. (*See Exhibit 13a*).

Not only do these types of tourist buses and large trucks pose serious fire danger during the summer months when there is dry vegetation along the road (there have been numerous recorded fires caused by overheating engines and/or sparks from vehicles carrying heavy loads – *see Arger Opposition Letters*), but they also pose severe public safety threats to other drivers on the road. As can be clearly seen from the photo of the March 25, 2017 incident, as well as the previously provided photos of the September 24, 2016 bus incident, *see Arger Opposition Letters*, there is no shoulder onto which these stalled vehicles can pull over and stop. The vehicles literally end up in the middle of the roadway, posing a safety risk to any and all other drivers on the road due to the many blind corners on Soda Canyon Road. In fact, where the stalled bus pulled over on March 25, 2017 is one of the worst possible places it could have happened because that driveway, which services 2431, 2435, and 2439 Soda Canyon Road, is on a downhill slope just past a completely blind corner on the right hand side of the road following the steepest part of Soda Canyon Road, meaning that cars and trucks coming around that corner carry significant rates of speed and could have easily plowed into the back of the bus, which is hanging well out into the road, injuring numerous members of the public. (*See* Exhibit 13b-c).

⁸As previously noted by Opponents, there are *many* accidents on Soda Canyon Road that go *un*-reported. (*See Arger Opposition Letters*).

10. March 27, 2017 Fallen Tree Blocking All Traffic on Soda Canyon Road

Among the many hazards that exist on Soda Canyon Road are falling branches and entire trees. A review of the CHP and CalFire reports for Soda Canyon reveals that since January 2014, there have been at least 10 incidents (including the March 27 incident) involving downed branches and trees.⁹ (See Exhibits 1, 3, and 5). And, just during this past fall and winter (October 2016 to March 2017), there have been four separate incidents involving downed trees blocking the entire roadway, the most recent of which occurred on March 27, 2017. (See Exhibit 3). Attached as Exhibit 14a-e are photos of the March 27 incident, which depict a tree blocking the entirety of Soda Canyon Road around the 2.6-mile mark. According to individuals at the scene, and supported by photos showing the significant number of stopped cars, the road was completely blocked for approximately an hour and a half while crews worked with chainsaws to cut and remove the large oak tree. Fortunately, nobody was injured, but this incident demonstrates how quickly and easily the dead-end road can and *does* become completely blocked for hours at a time. Had there been a medical emergency and/or a wildfire, rescue crews would not have been able to reach any victims; all residents and visitors of Soda Canyon above the 2.6-mile mark (which is well before the Applicant's proposed Project site at approximately mile 6.1) were trapped and would have been forced to "shelter in place" in the event of another devastating wildfire.

Moreover, the downed tree on March 27, 2017 knocked out both phone and power lines that affected numerous properties on Soda Canyon Road. In fact, as of the date of this letter, *a week after the incident occurred*, there are still several homes on Soda Canyon Road without a landline telephone connection, including Appellant Arger's home, which is directly across from the proposed Project site. Importantly, because there is *no cell service on nearly the entirety of Soda Canyon Road*, and particularly on upper Soda Canyon Road past the 5-mile mark, many home and property owners, and any visitors to the area do not have the ability to call for help in the event of an emergency, of which there are many on this road. Combine this fact with the past many instances in which the road has become blocked for hours at time (fallen trees, car and large truck accidents, fires, etc., see Exhibits 1, 3, and 5), and it is a recipe for disaster, especially when the Project seeks to introduce tens of thousands of vehicles and unfamiliar tourists to the road on an annual basis.

These types of incidents occur with regular frequency on Soda Canyon Road, demonstrating the existing dangers and public safety threats on the road *before* the Applicant seeks to add tens of thousands of wine-imbibing tourists and tens of thousands of car, truck, and other commercial traffic trips to the most remote reaches of Atlas Peak on an annual basis. Upholding the Planning Commission's approval of this Project in its current form poses a severe threat to the public safety and welfare, and cannot be ignored by the Board of Supervisors on appeal as was done by the Planning Commission during the MPW Hearings.

⁹The Sheriff's reports do not provide enough specificity to determine whether incidents, such as "Hazard," involve downed trees, and not all of the CHP or CalFire reports provide the amount of detail to determine exactly how many incidents involving downed trees have occurred over the years. Accordingly, it is likely that more than 10 downed tree incidents have occurred since January 2014, and many more in the years prior.

11. Updated Photos of Pavement Conditions on Soda Canyon Road

As previously described by Opponents of the Mountain Peak project, and plainly acknowledged by former Supervisor Dodd, Supervisor Dillon, Supervisor Pedroza, Commissioner Scott, and Deputy Director of County Engineering, Rick Marshall, the current physical condition of Soda Canyon Road is abysmal. (*See January 4, 2017 Hearing; Appeal*). To supplement previously provided photographs of Soda Canyon Road, attached are recent photos of particularly bad portions of Soda Canyon Road following the wet 2017 winter. (*See Exhibit 15a-t*). As is clearly visible from the photos, the road, in its current state, and without the addition of some 45,000 car trips from Mountain Peak visitor traffic and thousands more trips from employees, heavy trucks and other commercial vehicles necessary to run the commercial winery operation that Mountain Peak proposes, is a disaster.

Critically, and from a public safety and welfare standpoint, Mr. Marshall stated that there "really is no funding to do the kind of improvement that [Soda Canyon] or any other road would need in the foreseeable future." (*January 4, 2017 Hearing*). Additionally, Mr. Marshall acknowledged that "the collisions that we've had [on Soda Canyon Road] are not concentrated, they're distributed along the length of the road, so there isn't any specific, definite pattern." (*Id.*). Accordingly, it is simply incredible that the Planning Commission approved this Project *without any remediation measures* to the road and/or significant scaling back of the Project because there can be no question that the addition of tens of thousands of vehicle trips annually on the road will not only exacerbate the abysmal conditions of the road, but will also pose further safety risks along the entire length of the road.

B. Adverse Environmental Impacts Posed by the Mountain Peak Project

Section 18.108.010 of the Napa County Code maintains that

[t]he purpose and intent of these [conservation] regulations is to protect the public health, safety and community welfare, and to otherwise preserve the natural resources of the county of Napa. Further, these regulations are intended to ensure the continued long-term viability of county agricultural resources by protecting county lands from excessive soil loss which if unprotected could threaten local water quality and quantity and lead ultimately to loss of economic productivity.

See also Napa County General Plan ("*General Plan*") at CON-10. Section 18.108.010(B) of the Napa County Code goes on to state that the conservation regulations are intended to:

- 1. Minimize cut, fill, earthmoving, grading operations and other such man-made effects in the natural terrain;
- 2. Minimize soil erosion caused by human modifications to the natural terrain;
- 3. Maintain and improve, to the extent feasible, existing water quality by regulating the quantity and quality of runoff entering local watercourses;
- 4. Preserve riparian areas and other natural habitat by controlling development near streams and rivers;

- 5. Encourage development which minimizes impacts on existing land forms, avoids steep slopes, and preserves existing vegetation and unique geologic features; and
- 6. Protect drinking water supply reservoirs in sensitive domestic water supply drainages from sediment, turbidity, and pollution.

During her hearing testimony and letters to the County regarding the Project, Dr. Amber Manfree, who has a PhD in Geography at UC Davis with an emphasis in landscape change, a Masters degree in Geography with an emphasis in plant ecology, and a Bachelor of Arts in Environmental Studies from Sonoma State University, demonstrated that Mountain Peak will violate virtually every single one of the above-described regulations. *See Amber Manfree July 19*, 2016 Letter to the County; Amber Manfree October 11, 2016 Supplemental Letter to the County; Amber Manfree January 4, 2017 Speaking Notes; and Amber Manfree July 19, 2016 and January 4, 2017 Testimony (collectively, "Dr. Manfree Testimony"). Violation of several of these regulations is further demonstrated through the Greg Kamman Peer Review of Initial Study and Negative Declaration Mountain Peak Winery: Use Permit #P13-00320-UP (hereinafter "Kamman Hydrology Peer Review") and Mr. Kamman's January 2017 follow-up Review of Response to Public Comments by Richard C. Slade & Associates LLC in the Mountain Peak Winery matter, use permit #P13-00320-UP.

The information below and attached further supplements Opponents position that the Project will violate both Napa County Code and the *General Plan*.

1. Calculations of Mountain Peak's Earth Moving Activities

The Mountain Peak Project proposes to build 33,424 square feet of caves, which would be the twelfth largest of 174 caves ever approved in Napa County. (*See* Exhibit 16). An average Best Buy store measures approximately 28,000 square feet, meaning that the Project's proposed caves would be approximately 5,000 feet larger than the one of Best Buy's average retail stores. As it pertains to environmental concerns relating to the project, excavation of the caves will yield 29,498 cubic yards ("cy"), or 796,446 cubic feet ("cf") of spoils. To quantify that figure, if 29,498 cy of spoils were piled onto a football field, including the endzones, which measures approximately 57,600 square feet ("sf"), the spoils would measure approximately 14 feet high – the approximate height of a 1-story house.

Even more environmentally disconcerting than these figures is that after all of the cutting, filling, cave excavation, and topsoil removal, *the Project will be moving approximately 71,400 cy, or 1,927,800 cf, of earth and soil around the Project site during construction*. If this amount of earth were piled onto a football field, again including the endzones, it would measure approximately 33 feet high. (*See* Exhibit 17). An even more appropriate visual is that this amount of earth would fill approximately 3.25 Napa County Administration buildings (16,500 sf and 36 feet tall). (*See* Exhibit 18). Critically, the Applicant will keep *all of the cave spoils and mixed brew of top-soil and earth <u>on-site</u>, raising serious concerns of adverse environmental impacts, particularly without the benefit of an Environmental Impact Report ("EIR"), which the County, to date, has determined is not necessary.*

The calculations for these figures were performed by Appellant Bill Hocker, who is a retired architect. Mr. Hocker obtained and derived the 71,400 cy figure from Mountain Peak's own documents, including the Applicant's Civil Plans and Use Permit Drawings ("Civil Plans"), Updated Cave Plans ("Cave Plans"), and the Cave Feasibility Report ("Feasibility Report"), all of which are on file and publicly available on the County's website. Specifically, the calculations were made as follows:

Cut and Fill: 49,100 cy

The "cut" quantity, or total factored (loose) tunnel spoils of 29,498 (rounded here to 29,500) cubic yards (cy) is taken directly from UP2.0 of the Cave Plans, which multiplies the "raw tunnel volume" of 21,070 cubic yards (cy) by the 1.4 "bulking factor" (the soil expansion factor). Additional "cut" of 19,600 cy is derived by multiplying the figure of 14,000 cy (represented on UP4 of the Civil Plan for what is presumed to be the crush pad and parking lot areas) by the same 1.4 bulking factor. This means that the *total excavated spoils to be redistributed on -site is 49,098 cy* (rounded to 49,100 cy).

The spoils "fill" areas are shown on UP1 of the Applicant's *Civil Plans*. The *Civil Plans* indicate that 16,000 cy of spoils will be distributed near the two blue-line streams that run through or very near to the Applicant's parcel. Specifically, *5,900 cy of spoils will be distributed near the blue-line stream on the northeastern portion of the parcel, and 10,100 cy of spoils will be distributed near the blue-line stream on the northeastern portion of the parcel, and 10,100 cy of spoils will be distributed near the blue-line stream on the northwestern portion of the parcel. (See Exhibit 19a-b; see also Exhibit 20 – It Can Happen Again. Is the Rector Watershed Protected? The source of water for the Veteran's Home & Town of Yountville, A White Paper (hereinafter "White Paper") at p. 2; Civil Plans at UP1;). To put the cave spoils piles in perspective, the amount of earth to be dumped near two blue-line streams would measure <i>7.5 feet high if dumped on a football field, including the end zones*.

What is *not* noted in the plans is where the 33,098 (rounded to 33,100) cy of spoils, derived from subtracting the 16,000 cy from 49,100 cy, will be distributed. It appears from the plans that the 33,100 cy of spoils are destined for the service driveway and berms at the southernmost area of the Project site. However, that area is at most 3 acres. The height of 33,098 cy of spoils on 3 acres would average approximately 8 feet high. This begs the question of whether the service driveway and berms around the parking area actually require twice as much in spoils as the designated spoils areas (i.e. 16,000 cy is going to spoils areas, while 33,100 cy is destined for the service driveway and parking area)?

In short, an analysis of the amount of cut and fill shown on the Applicant's plans indicates unanswered questions about the ability of the Project site to accommodate all of said spoils.

Topsoil Removal: 22,300 cy

In addition to the above figures, it is important to note that the amount of dirt to be excavated and repositioned on the Project site is much larger than just the cuts that produce spoils. Approximately 2-3 feet of topsoil must be removed in all areas to receive spoils, then stored on the site and re-covered over the spoils. These additional tens of thousands of cubic yards that must be moved around the site are *not* accounted for anywhere in the Applicant's plans.

From the site plan it appears that approximately 7 acres (majority of the southernmost portion of the site, including the two fill areas and the wastewater tanks and holding pond) will have to be stripped of approximately 2 feet of topsoil and replaced after the distribution of spoils. (*See* Exhibit 21). Approximately 7 acres of topsoil, 2 feet deep, would produce *an additional 22,300 cy of earth that will have to be moved on/around the site*. This raises further concerns of potentially significant environmental impacts that may result from erosion and sedimentation into the Rector Watershed.

Total Soil to be Moved Around the Project Site: 71,400 cy

Putting the figures together – the 49,100 cy of accounted-for spoils and the 22,300 cy of unaccounted topsoil - the total amount of spoils, dirt, and earth that must be moved around the Project site amount to 71,400 cy (1,927,800 cf).¹⁰ Aside from the fact that this figure equates to a football field (including the endzones) being piled 33 feet high, or 3.25 County Administration buildings, the bigger questions are (1) how much additional earth (Appellants estimate ~22,300 cy) will be moved around the Project site, and (2) where any leftover earth from the 33,100 cy assumed to be going to the southern portion of the Project site, will end up on the project site? If there is any leftover spoils/mixed earth, will the leftover earth be dumped on top of the planned spoils piles near the two blue-line streams and the wetlands area? Under the current plans, 5,900 cy of spoils will be distributed near the blue-line stream on the northeastern portion of the parcel, and 10,100 cy of spoils will be distributed near the blue-line stream on the northwestern portion of the parcel. Will the applicant simply distribute another ~10,000 to 30,000 cy (rough estimate of leftover spoils) between the two spoil dump sites if in fact the southern portion of the site cannot handle the additional earth? With such a large amount of earth and spoils unaccounted for and the fact that the two current spoils piles are very near to two separate blueline streams, the County *must* require additional investigation, namely through an EIR, to ascertain the answers to these critical questions.¹¹

2. Impacts of Flooding & Sedimentation on/near the Mountain Peak Site

a. Sedimentation of Blue-Line Streams on/near Mountain Peak Parcel

The Project will dispose of "all cave spoils on-site within existing vineyards." (*See Recommended Conditions of Approval and Final Agency Approval Memos* at pg. 1.) The Applicant has designated two sites to dispose of the *at least* 16,000 cy (as indicated above, this figure could be much larger) of cave spoils on the property; one on the northwestern portion of the western part of the parcel, and the other on the southwestern portion of the northeastern part of the property parcel. Importantly, these proposed spoil locations are approximately 260 and 100 feet, respectively from separate blue-line streams that feed directly into Rector Canyon. (*See Civil Plans* at UP1; *see also County Graphics from January 4, 2017 Hearing* at pg. 4).

¹⁰In the Appeal docoument, the figure was 71,700 cy, or 1,935,900 cf. However, after further analysis, that figure has been slightly modified and reduced.

¹¹For additional calculations relating to cave spoils, please see Exhibit 22.

Between December 2016 and the date of this Supplement, heavy rains have caused the blue-line stream on the northeastern portion of the Mountain Peak parcel *to flood and overrun the gravel road on five (5) separate occasions*. Critically, during each of these events, and even during numerous other rain events of the 2017 winter season when the water did not run over the road, the blue-line stream has clearly demonstrated elevated levels of sediment and likely other contaminants contained in the water during said rain events.

For example, attached as **Exhibits 23a-l** are photographs and of the blue-line stream on the northeastern portion of Mountain Peak's parcel taken on January 3, January 4, and January 8, 2017, respectively.¹² Attached as **Exhibit 24a-b** are videos of the January 8, 2017 flooding of the blue-line stream located on the northeastern portion of the Mountain Peak parcel. As is plainly visible from the photos, over the course of a few short days, the water running through Mountain Peak's parcel goes from relatively clean and clear water, to obviously brown, muddy and sediment-filled water. The same is true for rain events around March 21, 2017. As is evident in **Exhibits 25a-k**, the photographs of the same blue-line stream show that on March 21, 2017 the water is relatively clean and clear, but that on March 22, 2017, the water is noticeably murkier and filled with sediment and likely other contaminants.

The takeaway from these sedimentary events is twofold. First, they refute Mr. Paul Bartelt's statements during the January 4, 2017 that the issue raised by Dr. Manfree that Mountain Peak violated County ordinances by bulldozing over the blue-line stream in 2013 has been remediated. (See Exhibit 26a-c). Specifically, during the January 4, 2017 hearing, Dr. Manfree explained and provided evidence that not only did Mountain Peak violate County and Environmental ordinances by illegally bulldozing over the blue-line stream when it first purchased the property in 2013, but that the issue has still not been properly remediated. (See January 4, 2017 Hearing). Mr. Bartelt then testified that following "part of the vineyard development going on at that time" his company "remediated the issue" by "plac[ing] rocks across there." (Id.). He then went on to state that he has "not been to the site recently, but it is [his] understanding in previous years that that has been remediated and restored to its original condition." (Id.). To begin, how is the placement of rocks on a blue-line stream that has been bulldozed proper remediation of the issue? If anything, that seems to be an admission of fault and failure to remediate the issue. It seems that remediation would require the Applicant to put the stream back into the condition before it was disturbed, *not* further disrupting the flow of the stream by placing rocks in it. Moreover, as can be clearly seen in **Exhibit 26c**, a picture of the parcel taken on January 2, 2017, the pile of earth leftover from Mountain Peak's unpermitted bulldozing activities has not been moved or remediated. In fact, that pile still sits immediately adjacent to the stream, and may be a primary reason why there is so much sedimentation of the water running in and through the blue-line stream located on Mountain Peak's parcel. This matter, especially because it has been contested by one of Appellants' experts, Dr. Manfree, and Mountain Peak's engineer, Mr. Bartelt, requires additional investigation by the County to determine if in fact the matter has been "remediated," and if not, what types of impacts the event has and will continue to have in terms of releasing additional sediment into the Rector Watershed.

¹²The **Exhibit 24a-b** videos are also available on youtube at <u>https://youtu.be/ZAT1pF9INj4</u> and <u>https://youtu.be/iK6-Vm1kwQI</u>, respectively.

Second, the repeated sedimentary events of early 2017 highlight how much sedimentation and pollution of the Rector Watershed, and ultimately the Rector Reservoir, is occurring before Mountain Peak's proposed placement of at least 16,000 cy of earth within 100 and 260 feet, respectively, of the two blue-line streams on or near the Mountain Peak parcel. As explained above, this amount of earth would pile 7.5 feet high on a football field, including the end zones. What does the County expect will happen once the cave spoils have been placed that close to the two blue-line streams and another heavy rain season arrives? No amount of "erosion control" will prevent this amount of earth from releasing large amounts of sediment and pollution into the blueline streams. The Applicant, for one, has already acknowledged through its own reports that when "a greater than 10-year storm event" does occur, the "stormwater runoff from the developed area to a detention basin near the western property line . . . will overflow the detention basin and sheet flow through natural terrain before entering an existing blue line stream on the neighboring parcel." See Bartelt Storm Water Control Plan at pg. 2 (emphasis added). In other words, the Applicant's own study admits that erosion into at least one of the blue-line streams that feeds the Rector Creek Watershed will occur during large storm events, such as those that have been occurring throughout the early part of 2017. Importantly, that particular study produced by the Applicant is referring to the blue-line stream to the northwest of the Project site, not the blue-line stream on the northeastern part of the parcel where all the sedimentary events of early 2017 have been clearly documented. In combination with the documented 2017 sedimentary events, this means that the County has been presented with ample evidence that the Project, even with erosion control measures, will likely cause sediment and other contaminants to be delivered into both blue-line streams feeding the Rector Watershed and the Rector Reservoir by normal weathering processes such as wind and precipitation runoff. Yet, the County is not requiring an EIR, which is contrary to local, state, and possibly even federal environmental and water laws. Given the magnitude of proposed excavation relative to the size of the site, the proximity of dump sites relative to streams, and the potential for Project cave spoil leachate to contain contaminants, environmental impacts of excavation must be rigorously evaluated through a full EIR.

b. Impacts of Sedimentation on Rector Watershed

The Mountain Peak Project site is located within the Rector Watershed, the most developed of all water supply watersheds in Napa County. The Rector Watershed feeds Rector Reservoir, the source of water for the Veteran's Home and the Town of Yountville. (*See* Exhibit 27 – *Rector Creek Reservoir Watershed Sanitary Survey 2009 Update*, hereinafter "2009 Rector Update," at p. 9, which provides a review of the Rector Reservoir "public water system for the purpose of evaluating the adequacy of water sources, facilities, equipment, operations and maintenance that together collect, treat, and distribute drinking water"). However, County Staff comments as part of the Project's application stated that the Project is *not* in a "municipal" watershed. (*See County's January 4, 2017 Supporting Document "S," Updated Winery Comparison Analysis*). This is wholly inaccurate.

The Rector Watershed above the Rector Dam covers 6,972 acres. Of this, 1,492 acres (21%) are planted in vineyard, with several additional wildland to vineyard conversion projects presently being considered by Napa County. There are 1,293 acres (19%) in reserve owned by the CA Department of Veterans Affairs, the Napa Land Trust, US Bureau of Land Management, and CA Department of Fish and Wildlife. Of the remaining lands, 1,794 acres (26% of watershed area)

would require a variance to develop due to excessively steep slopes as per Napa County ordinance (NCC section 18.108.040), and most of the remaining acreage is either steep enough to require slope-related permitting to develop, exempt from development as part of the Napa County 60-40 rule, or held privately by entities not currently pursuing development. (See Exhibit 20 – White Paper; see also Exhibit 28 – 2013 Rector Reservoir Water Yield Study at p. 3). As such, the watershed is nearing build-out in terms of wildland conversion to vineyard.

Atlas Peak frames the eastern boundary of Rector Watershed, catching storms as they move eastward. The Rector Watershed is ringed by steep mountains which drain through alluvial fans then across a small plateau before making an even more dramatic drop into Rector Canyon. (See **Exhibit 19a-b;** see also **Exhibit 20** – White Paper). This canyon is characterized by frequent waterfalls ranging from a few feet to 30 feet. (See **Exhibit 20** – White Paper at figures 4a-b). The overall steep topography of the watershed causes precipitation to move rapidly to Rector Reservoir, which is often the earliest reservoir to crest its spillway in Napa County. The complete lack of floodplains in this system means there is nowhere for material to settle out before reaching the reservoir. Accordingly, major storms have the potential to rapidly transport substantial volumes of loose material from throughout the watershed to the reservoir, as occurred after the 1981 Atlas Peak fire and following irresponsible wildland to vineyard conversion practices in the 1990s (see below). (See **Exhibit 27** at pp. 10-18, 37-38). The potential for Mountain Peak to degrade water quality, thereby exacerbating existing impairments, is high.

The Project represents a radically different development style from the two existing Rector Watershed wineries, and would set a bad precedent in the area. The main points of divergence are that it would be (1) permitted to produce far more wine than could be made from grapes grown on-site, and (2) the Applicant's business plan involves aggressive pursuit of direct to consumer sales (i.e. high volume tourism). While these are not in direct threats to Rector Watershed water supply catchment functions, development of Mountain Peak as proposed would set a meaningful standard in the Foss Valley region, paving the way for additional projects of similar size and scope from the perspective of the County. This could have devastating consequences on Rector Reservoir, as the unbridled vineyard expansion of upper Soda Canyon did in the late 1990s.

In the late 1990s, large parcels of land in the Rector Watershed were converted from wildland to vineyards. "Year by year, [Jan Krupp] removed the brush and boulders and planted grapevines. 'I think we removed about a billion tons of boulders,' [Jan Krupp] speculated."¹³ In February 1998, powerful storms hit Northern California and the Napa Valley.¹⁴ "State Water Resources Director David Kennedy said the most damage suffered…was along smaller streams."¹⁵ "Napa, with 33.6 inches so far this season, has received more than twice the normal rainfall of 15 inches for this time of year."¹⁶ This figure pales in comparison to the nearly 60 inches (58.80 inches as of March 23, 2017 to be exact) received by the Atlas Peak region thus far during the 2016-2017 season (October to September). (*See* Exhibit 30a-b – Summary of California Department of Water Resources historical rainfall data since 1990 for Atlas Peak).

¹³ Napa Valley Register, The evolution of Krupp, February 3, 2017, page C1, attached as Exhibit 29.

 ¹⁴ Napa Valley Register, Hang on tight It May Get Rough, February 5, 1998, page 1, attached as Exhibit 29.
 ¹⁵ Id, page 4A

¹⁶ Napa Valley Register, Monster Storm takes a detour, February 6, 1998, page 4A, attached as Exhibit 29.

On March 17, 1998, the *Napa Valley Register* headline read *Veterans' water system a threat to public health*, and went on to state that "[t]he Veterans Home's aging treatment plant . . . cannot reliably filter the water at Rector Reservoir to meet current drinking water standardsⁿ¹⁷ The article goes on to state that "[d]uring the heavy rains of early February, the plant produced water that exceeded turbidity limits. The facility was shut down immediately when inspectors discovered the water quality violation. The plant remains shut down while state officials plan corrective actions. . . . Yountville has offered to contribute \$50,000 to help the Veterans Home pay for additional water filtration, but the state hasn't accepted the offer.ⁿ¹⁸ The article continues: "Thompson . . . persuaded his budget subcommittee to set aside \$4.4 million in state's 1998-99 budget to pay for treatment plant improvementsⁿ¹⁹

On June 11, 1998, the *Napa Valley Register* published an article titled *Daily Briefing, Water supply still a problem*, wherein it was described that "during the heavy rains of early February, the plant produced water that was too muddy to meet standards and had to be shut down temporarily.... Sen. Mike Thompson, D-Napa Valley, has been pushing reservoir funding legislation through budget committee hearings, but nothing will be set in stone until the budget is signed by Gov. Pete Wilson."²⁰

On November 7, 1998, the Veterans Home of California received "[a] welcome appropriation of \$4.5 million from the Federal Government in 1998 [to] fund improvements in water treatment facilities at Rector Reservoir."²¹ According to the March 17, 1998 *Napa Register* article, the Department of Water Resources of Rector Reservoir water supply expected the renovations to Rector Reservoir to take approximately four months to complete. A new filtration system was eventually installed.

Fast forward to the present. The proposed Mountain Peak Project is likely to result in transportation of silt to the Rector Reservoir as a result of moving 71,400 cy (1,927,800 cf) of earth and soil of unknown composition on and around the Project site, and placing *at least* 16,000 cy (432,00 cf) near two blue-line streams. According to the 2009 Rector Survey, two of the sources "most likely to impact water quality in Rector Reservoir's contributing watershed area" include (1) fire, and (2) erosion and sedimentation. (**Exhibit 27** at p. 107). Specifically, "[e]arth materials delivered to stream systems can adversely impact water quality by causing rapid increases in turbidity levels after initial slope failure, and chronic increases in turbidity levels as disturbed soils are exposed to subsequent rainfall events prior to revegetation." (*Id.* at pp. 52). Additional sources of "moderate potential to impact water quality include" (3) growth and expansion of land uses in the watershed, (4) landsliding, and (5) incoming raw water quality. (*Id.*).

As outlined above and depicted in photographs and videos from the rain events of 2017, there is already erosion and sedimentation occurring on the Mountain Peak parcel. If the Project is approved, there will be an incredible growth and expansion of the land use in the form of moving

²⁰Exhibit 29.

¹⁷<u>The Veterans Home of California</u>, *A Sanctuary for Those Who Served…Veterans Home of California*, November 7, 1998, attached as **Exhibit 29**.

 $^{^{18}}$ *Id*.

¹⁹*Id*.

²¹<u>Napa Valley Register</u>, Veterans' water system a threat to public health, March 17, 1998, attached Exhibit 29.

some 1,927,800 cubic feet of earth on and around the site, and then dumping *at least* 432,000 cubic feet of spoils near not one, but *two*, blue-line streams that feed directly into Rector Canyon. This undoubtedly raises serious risks of additional erosion and sedimentation in to the Rector Watershed from the Applicant's site. Yet, the Planning Commission determined the Project will have no 'significant impact' on Rector Watershed or Rector Reservoir. Such a blind expectation by the Planning Commission, without the benefit of an EIR is incredibly irresponsible, and could serve as yet another avenue by which the County exposes itself to liability to the tune of several million dollars from Project Opponents, the City of Yountville, and/or the Veterans Home. Moreover, the failure to require an EIR in this instance goes against the County's own recent policies and practices. As described in the 2009 Rector Survey, the authors state that

Napa County has required an Environmental Impact Report for vineyards development and expansion in the last five years because of the Agricultural Watershed zoning in Rector Creek Watershed, the Yountville municipal and domestic water supply of Rector Reservoir, and the accelerated rate of vineyard expansion. . . An analysis of erosion, sedimentation, and hydrology is a required component in the CEQA and EIR processes.

(See Id. at p. 65).

In short, based on reliable, independent, and historical data and reports, the Project is likely to have potentially significant impacts on the environment, and specifically on the Rector Watershed. Not only could the erosion and sediment adversely impact various biological species in Rector Canyon, *see Dr. Manfree Testimony*, but it may also cause serious damage to Rector Dam, requiring millions of dollars in repairs, as was the case in the late 1990s. Accordingly, the Planning Commission's decision to approve the Project without the benefit of a full EIR was in error and must be corrected on appeal.

c. Impacts on Wetlands on Northern Portion of Mountain Peak Parcel

In addition to the potential impacts of sedimentation of the blue-line streams, another potentially significant environmental impact relates to a wetland area on the northernmost corner of the Project site. As of the date of this Supplement, there is a steady flow of water running from the wetlands area, across Appellant Hocker's property, and into Rector Canyon. According to a review of the Applicant's plans, this wetland area will be *surrounded on three sides by the spoils area on the northwestern portion of the parcel*. (*See Civil Plans* at UP1; **Exhibit 21**) To the best of Appellants' understanding and knowledge, the former owner of the Mountain Peak parcel, Dr. Jan Krupp was *not* allowed to plant vines in that area in his original vineyard development plan, and the proposed spoils area on that part of the site appear to just barely, but intentionally avoid the wetland area. This raises yet *another concern* as to potentially significant environmental impacts that this Project, as proposed, may cause, especially on the Rector Watershed.

C. A More Appropriate Comparative Winery Analysis of the Project

In letters opposing the Project, *see Arger Opposition Letters* (among others), as well as during the January 4, 2017 hearing, Opponents of Mountain Peak highlighted the glaring flaws in

(1) the Applicant's "Comparable" Winery analysis, and (2) the County's "Updated Winery Comparison Analysis," and provided a more appropriate list of wineries that should be used for comparison including those located on Atlas Peak Road and Soda Canyon Road. (*See* Exhibit 31). The conclusion from a review of the Applicant's, the County's, and Opponents' initial comparables is that there are *no* comparable wineries to the size and visitation requested by the Applicant on dead-end roads like Soda Canyon Road. The Applicant's examples included large wineries accessed directly off highways and major through roads. The 100,000-gallon "hillside" wineries presented by the County in fact were on state highways or had tasting rooms on the valley floor. Of the Atlas Peak Road examples provided by Appellant Schreuder during the January 4, 2017 hearing, the only winery with equivalent visitation (Hess Collection) was near the bottom, flat section of the road by the Silverado Country Club. Finally, the only winery with more than 30,000 gallons on Soda Canyon Road, Antica Napa Valley ("Antica"), has 1,200 acres of contiguous land parcels that amount to approximately 30 times the size of Mountain Peak's parcel, yet Antica has only slightly more than one third the annual visitation (5,200) being requested by Mountain Peak (14,575). (See Id.; see also Arger Opposition Letters).

During the January 4, 2017 hearing, when speaking about roads, Mr. Marshall made the following statement regarding comparable wineries: "I was trying to think of - you know as soon as I say it, likely somebody will disagree – an example to me that's similar is Diamond Mountain. It's a similar narrow windy, mountainous terrain, and it's a dead end." What Mr. Marshall did not know is that Diamond Mountain's permit only allows for 10,000-gallons in production and 1,520 visitors annually, meaning it is almost exactly one-tenth the size of the production capacity and annual visitation being sought by Mountain Peak. (See Exhibit 32b). Following Mr. Marshall's comments, and the comparisons noted above, Opponents of the Project conducted a more extensive winery comparison. Opponents of the Project have consistently maintained that given the access constraints of Soda Canyon Road, and the intensity of winery activities proposed, Mountain Peak is *not* appropriately scaled for the location in which it is being proposed. (See Napa County Resolution No. 2010-48, Interpretive Resolution to Ordinance No. 1340, Exhibit A, Section III (hereinafter the "2010 WDO Amendment"), which requires appropriate scaling of wine production, on-site marketing, and visitation programs based on the "remoteness of the location" and "access constraints"). In response to the Applicant's and the County's approach thus far of analyzing a very small subset of wineries as comparables, Opponents have taken a look at winery development in the watersheds as a whole in order to see how Mountain Peak compares. The results are quite stunning, and reveal that the Mountain Peak Project stands out as the largest winery ever proposed in Napa County when considering the remoteness of the location and access constraints posed a dead-end road. These indisputable facts must be given serious consideration and weight as part of the Board of Supervisors' decision on the Appeal, particularly in the light of the 2010 WDO Amendment.

Attached hereto as **Exhibit 32a-i** is a map and list(s) of the 72 "remote" wineries in Napa County, with the criteria for "remote" including those wineries that are (1) within the hilly areas of the watersheds, and (2) more than one mile from a major highway (for comparison, the average distance between Hwy 29 and Silverado Trail is two miles).²² For an interactive version of

²²The map and list of "remote" wineries exclude wineries on the Hwy 12 corridor, as it is outside of watershed areas. Additionally, the map and list have been made using data from the Napa Valley Vintner's ("NVV") Map, attached as **Exhibit 33**, and Napa County's December 15, 2016 Winery Database, attached as **Exhibit 34**.

Opponents' "remote wineries" map (i.e. users can zoom in/out) and list (users can sort list by name, roads. size. visitation. distance on dead-end etc.), please visit[.] http://sodacanyonroad.org/remotewineries.php?t=162. Immediately below is a table demonstrating the average and median figures for the existing 71 "remote wineries" (i.e. average and median figures exclude Mountain Peak because its approval is still pending the appeal) as compared to the Mountain Peak Project:

	Capacity (gal/yr)	Visitors/yr	Employees	^Trips/ day	Distance from Hwy (miles)	Distance on Dead-End Road (miles)
Average w/out Mountain Peak ("MP") Average w/out MP, Antica, Hess	52,344 31,921	- , -	6	36	4.4	° 3
Median	20,000	2,127	4	20	4.0	° 2.5
Mountain Peak Winery	100,000	14,575	19	105	6.1	6.1

^ Trips/day calculated from County weekday trip generation formulas

Null values excluded

An analysis of the Mountain Peak Project demonstrates that when it is compared against the 71-approved watershed, "remote" wineries, it falls in the *upper 10% for capacity and visitation*. Specifically, the Project:

- Has 2 x the average capacity (3 x if Antica and Hess, both pre-WDO wineries, are excluded);
- Has 5 x the median capacity (only 6 wineries have larger capacity, which are all pre-WDO);
- Has 2.5 x the average yearly visitation;
- Has over 7x the median yearly visitation (only 7 wineries have larger visitation, 4 of which are pre-WDO with public tastings);
- Is 2 miles further from a major highway than average, and 3 miles further up a dead-end road than average;
- Has 3 x the average trips per day generated;
- Has 9 x the median trips per day.

In addition, when the "remote winery" list is sorted by its various criteria/columns, the Project ranks among the highest in nearly every category. When the list is sorted by (1) "**Pre**/Post WDO," (*see* **Exhibit 32c**), Mountain Peak comes in as having the <u>largest production capacity</u> (100,000 gallons/year), and the *fourth largest visitation allowance <u>of all Post-WDO "remote"</u> <u>wineries</u>, of which there are 46 (including Mountain Peak). Notably, the three Post-WDO wineries with larger visitation allowances than Mountain Peak (Wools Ranch, Palmaz, and Vineyard 22) are <i>not* located on dead-end roads, meaning that <u>Mountain Peak is seeking the largest visitation</u> <u>allowance of any winery in the history of Napa County that is located on a dead-end road</u>. Additionally, of the seven Post-WDO wineries with (or seeking) more than 10,000 visitors per year (Mountain Peak, Arkenstone Vineyard 22), only three (Mountain Peak, Arkenstone Vineyard 32), only three (Mountain Peak, Arkenstone Vineyard 32), only three (Mountain Peak, Arkenstone Vineyards, and Lodestone Winery) are located on dead-end roads. Critically, both Lodestone Winery and Arkenstone Winery, both of which have *less* visitation than Mountain Peak seeks, are located only 2.5 miles and 0.3 miles up a dead-end road. (See Id.). In short, a project of this size, in the location it

is being proposed, is truly *un*-precedented in the Napa Valley, and completely ignores the requirements and considerations outlined in the 2010 WDO Amendment.

When the list is sorted by "Capacity Gallons/Year," Mountain Peak ranks as having the *seventh largest production* of the 72 "remote" wineries. (*See* Exhibit 32d). When sorted by "Visitors/Year," Mountain Peak also ranks as having the *eighth largest visitation allowance* of the 72 "remote" wineries. (*See* Exhibit 32e). When sorted by the number of full-time employees, the list reveals that Mountain Peak has the *sixth largest number of employees* of the 72 "remote" wineries. (*See* Exhibit 32f). When the list is sorted by "Trips/Day," Mountain Peak comes in as having the *fifth largest number of trips* that it will add to the road on which it is located/being proposed. (*See Id.*). When sorted by "Distance from Highway," the list demonstrates that Mountain Peak ranks as number 21. (*See* Exhibit 32g). Critically, however, Mountain Peak has the *largest amount of annual visitation of all 72 "remote" wineries in terms of distance from a highway* because of its remote location 6.1 miles up Soda Canyon Road. (*See Id.*). In other words, while there are 20 existing wineries in Napa that are located further up on a dead-end road, *all of them have less visitation than is being sought by Mountain Peak*. And, the further up these other wineries are located on a dead-end road, the less visitation they have. (*See Id.*)

Finally, when the list is sorted by "Distance on Dead-End Road," Mountain Peak ranks as number eight of the forty-three "remote" wineries located on dead-end roads, meaning it is located farther on a dead-end road than 35 of the other dead-end road "remote" wineries. (See Exhibit **32h**). Importantly, of those top eight, three of which do not allow any visitation (Kongsgaard, Astrale e Terra, and Amizetta), *Mountain Peak seeks the largest amount of visitation by nearly* three times as its closest visitation "competitor," Antica, which is located approximately 0.5 miles past Mountain Peak on Soda Canvon Road, has more than four times the production capacity at 450,000-gallons per year, and sits on approximately 1,200-acres of contiguous land (approximately 600 acres of which is planted in vine). (See Id.; see also Arger Opposition Letters). Moreover, with the exception of Antica, of the 8 existing wineries located on a dead-end road that have 5,000 annual visitors or more (Antica, Lodestone Winery, Black Sears Winery, Brand Napa Valley, Rogers Winery, Hess Collection, Outpost Winery, and Arkenstone Vineyards), all are located within 2.5 miles of the nearest outlet road. (See Exhibit 32h). Thus, even when compared to both the Pre- and Post-WDO "remote" wineries, Mountain Peak stands out as the largest Project ever proposed in Napa County when considering the remoteness of the location and access constraints.²³

The above, more extensive comparative analysis confirms that the Planning Commission's approval of this Project was a complete abuse of discretion, especially when the 2010 WDO Amendment requires appropriate scaling of wine production, on-site marketing, and visitation programs based on the "*remoteness of the location*" and "*access constraints*." The Project, in its current form, and precisely because of its extreme remoteness and access constraints, is clearly *inappropriate*, resulting in a blatant violation of the County's own policies.²⁴

²³The Project would also have the most – nearly three times the amount – of permitted visitation when compared to any of the existing wineries on Soda Canyon Road. (*See* Exhibit 32i).

²⁴See Exhibit 35 for additional information relating to the "remote" winery comparative analysis.

D. Mountain Peak's Phantom Tonnage Calculations Suffer Further Setback

As described in detail in the Arger Opposition Letters, as well as during the MPW Hearings, Mountain Peak's claim that "92 percent of the grapes will be grown on site" is without any support and is, frankly, illogical. As a brief recap, once the Project is completed, only 25 acres of the property will be planted in vine. As a result, the maximum amount of tonnage that can be produced "on-site," assuming a generous 3 tons/acre, is 75 tons of grapes. Even allowing for the 25% outside Napa grape sourcing, that means that Mountain Peak can only produce on-site and outsource a maximum of 100 tons of grapes. Mountain Peak is seeking a 100,000 gallon winery permit. This equates to approximately 700 tons of finished wine product. If Mountain Peak can only produce 75 tons, and outsources 25% of grapes, for a total of 100 tons, that means there is a 600-ton shortfall that Mountain Peak will have to truck in from other vineyards. As a percentage, this means that Mountain Peak can only produce 11% of grapes on-site, NOT 92% as it claims. And, even if for a moment, it is assumed that Mountain Peak could produce 5 tons to the acre as it claims it will be able to, which has been, and continues to be disputed by Project Opponents and numerous vineyard owners in the immediate vicinity of the Project, the most Mountain Peak could possibly produce "on-site" is 125 tons of grapes. Allowing for 25% outside grape sourcing, which is just over 30 tons (125 x .25), Mountain Peak can only supply approximately 155 tons of grapes "on-site," amounting to only 18% of on-site grapes (far less than 92%), which is 545 tons LESS than the approximately 700 tons needed to satisfy a 100,000-gallon permit.

Incredibly, despite Project Opponents' (1) clearly outlined and articulated arguments that the on-site grape production cannot support anywhere near the 100,000 gallon permit sought by the Applicant, and (2) repeated requests that the Applicant produce contracts and otherwise substantiate its claims that "92% of the grapes will be grown on-site," the County, to date, and to the best of Appellants' knowledge, has not required the Applicant to further support its absurd claim that it can almost entirely support a 100,000-gallon winery from on-site vineyards. Because the Project cannot support its 100,000-gallon permit, it means that the winery will be forced to utilize and otherwise import grapes from other vineyards throughout Napa Valley. Importantly, however, the recent sale of Stagecoach Vineyards indicates that such grapes will not be obtained from nearby vineyards on Atlas Peak, as has been repeatedly suggested by the Applicant.

According to the March 23, 2017 edition of the Napa Valley Register, Gallo Winery announced "that it has agreed to purchase Stagecoach Vineyard" from Dr. Jan Krupp, who is the same individual from whom the Mountain Peak owners purchased the proposed Project site. (*See* **Exhibit 36a-b**). The Gallo Winery purchase of the 1,300-acre property, 600 acres of which are planted to vine, further discredits any claims and representations made by Mountain Peak that the winery could or would cut down on the amount of truck traffic on Soda Canyon Road because Mountain Peak would serve as the site for processing grapes grown on upper Soda Canyon Road. To begin, the news articles indicate that Gallo will continue to honor the existing contracts, which to the best of Appellants' knowledge does not include Mountain Peak because, of course, Mountain Peak does not yet have a facility at which any grapes could be processed.

More importantly, Roger Nabedian, senior vice president and general manager of Gallo's premium wine division indicated that while Gallo does not have an immediate plan to use all of the grapes, it certainly may in the future, further precluding any notion that Mountain Peak may

obtain from Gallo's Stagecoach the significant amount of grapes needed to support a 100,000gallon permit. Such a protracted move by Gallo to eventually use all of the grapes from Stagecoach makes sense. The Gallo Winery owns numerous brands and large grape processing facilities both within and outside of the Napa Valley. From an economic standpoint, it makes no sense that it would sell or even custom crush any grapes at the Mountain Peak Facility.

Finally, the sale of Stagecoach Vineyard precisely affirms the concerns raised by Opponents that a separate parcel can be sold at any point in time, especially if it is not contiguous with the winery site, and a lease can be terminated at will. To support its application for a 100,000gallon permit, the Applicant relies very heavily on claims that grapes that will be sourced from (1) a separate, non-contiguous 84-acre parcel containing vineyards located a few miles from the Project site that was recently purchased by Mountain Peak's owner, and (2) leased vineyards somewhere near the Project site. (See MPW Hearings). However, the purchase of the Mountain Peak Winery site by the Applicant's owner(s), and of Stagecoach Vineyards by Gallo confirm these outside grape sources cannot be counted on for a winery permit that runs with the land forever. Before the above purchases took place, Dr. Jan Krupp owned both of these land areas/parcels, yet sold them to two completely unrelated and separate entities who in all likelihood will not be working together because of dissimilar business models and needs. This exact scenario could easily play out at any point in time with Mountain Peak - the owners could sell the Project site to one buyer, and the separate, 84-acre vineyard parcel to a completely separate buyer (perhaps even Gallo Winery), meaning that if the Mountain Peak Project parcel were to end up with a 100,000-gallon permit, the next owner would have only 25 acres of vineyards, producing an absolute maximum of 125 tons of grapes according to the Applicant's overly generous estimates (and much more likely closer to between 60 and 75 tons of grapes), from which to satisfy a production facility requiring 700 tons of grapes to reach capacity.

Opponents' substantiated concerns over Mountain Peak's inability to produce on-site or obtain from nearby vineyards (including Gallo's Stagecoach Vineyards) anywhere near the amount of grapes needed to support a 100,000 gallon winery, and the fact that Gallo Winery just purchased a significant portion of all the vineyards on Atlas Peak have a clear implication: *Mountain Peak, or any future owner of the parcel if/when Mountain Peak's owners decide to sell, would be forced to truck-in hundreds of tons of grapes up Soda Canyon Road if the sought-after permit is approved on appeal.* This, in turn, will result in further deterioration of the already dilapidated road, and increase the risk for accidents and incidents, posing further threats to the public safety and welfare of the County and all residents, property owners therein, and visitors thereto.

III. CONCLUSION

To date, the Applicant has done a commendable job of presenting itself to the County as a reasonably sized, environmentally friendly Project. This, in turn, has kept the County's attention focused on inconsequential components of the Project, such as LEED certification,²⁵ instead of on the numerous and irrefutable facts that this Project, in the remote and rural location where it is being proposed, will have devastating impacts on (1) the public safety and welfare of any user of Soda Canyon Road, (2) numerous aspects of the environment, and (3) the long-term sustainability of Napa County's wine industry because of the terrible precedent the Project will set.

²⁵See Exhibit 37 for additional rebuttal information to the Applicant's heavy reliance on LEED certification.

The information contained within and attached to this Supplement provides further proof and evidence that the Planning Commission committed a prejudicial abuse of discretion when it determined that the Mountain Peak Winery Project "will not have a significant effect on the environment," adopted a Negative Declaration ("ND"), and approved the Project with all requested conditions without any meaningful remediation or mitigation measures. The Planning Commission's approval of this truly *un*-precedented Project – literally the *largest Project ever proposed in Napa County when considering the remoteness of the location and access constraints* – violates the Napa County Code, the Winery Definition Ordinance, the *General Plan*, State law, and possibly even Federal law.

To correct this abuse of discretion, the Board of Supervisors must either deny the Project outright, or remand the Project to the Planning Commission with direction to County staff to retain the appropriate qualified experts to conduct an impartial EIR consistent with requirements of the California Environmental Quality Act, and further require the Project to comply with the Napa County Code, the WDO, the *General Plan*, and all other applicable State and Federal laws, as outlined above and in the Appeal.

Letter I3Amber Manfree, PhDResponseMarch 29, 2021

- **I3-1** The comment states that the proposed project would create significant impacts related to greenhouse gas (GHG) emissions, traffic, wildfire risk, water, and biological resources; that the Draft EIR is not adequate; and that the project should not go forward. Responses to this comment are provided in Responses to Comments I3-2 through I3-64.
- **13-2** The Draft EIR assesses the cumulative impacts of the proposed project with respect to past, current, and probable future projects in the region (Draft EIR Section 4.1, *Cumulative Impacts*). The criteria used to identify related projects in the area are listed in Draft EIR Sections 4.1 and 4.1.1 (page 4-2) and the list of related projects in the area is provided in Draft EIR Section 4.1.1 (Table 4-1, starting on page 4-5). The Draft EIR does not discount additional pressure on natural resources and community safety given existing cumulative conditions, as stated by the commenter. Mitigation measures and regulatory requirements are identified for impacts discussed in Draft EIR Section 4.1.2 to assess whether the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact.

The commenter's statement that levels of significance presented in the Draft EIR are opinions and are rarely supported by credible data is not accurate, as described in Responses to Comments I3-3 through I3-64. Additionally, each technical section in the Draft EIR describes the existing environmental setting on the project site and in the area, presents the regulatory setting pertinent to each technical section, and assesses the impacts of project construction and operation; impacts are then referenced in the cumulative impacts assessment in Draft EIR Section 4.1.2.

With respect to public trust resources (in particular streams that would also fall under the jurisdiction of the California Department of Fish and Wildlife) as indicated in Impact 3.5-1 in Draft EIR Section 3.5, *Geology and Soils*, and Impact 3.7-1 in Section 3.7, *Hydrology and Water Quality*, soil loss, sedimentation and runoff that could potentially negatively affect aquatic resources and associated water quality would not be increased and therefore are not anticipated to detrimentally affect this public trust resource.

I3-3 As stated on Draft EIR page 3-3, the standards of significance in the Draft EIR are the set of criteria used by Napa County to determine at what level or "threshold" an impact would be considered significant. Standards of significance used in the Draft EIR include those discussed in Appendix G of the State CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of federal, state, and local agencies; and criteria adopted by Napa County. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant federal, state, and local regulations.

The project's contribution to cumulative climate change effects is discussed in Draft EIR Section 3.2, *Air Quality and Greenhouse Gas Emissions*, Impacts 3.2-5 and 3.2-6. The proposed project's construction-related and operational GHG emissions would be less than significant, and the project includes several components to reduce emissions consistent with the goals of the County's Revised Draft Climate Action Plan and the 2017 Scoping Plan Update.

Regarding wildfire risk, Draft EIR page 1-7 (summarizing text from page 23 of the Wildfire section of the Initial Study, in Appendix B of the Draft EIR) states that project construction would require the presence of some vehicles and heavy equipment that could spark and ignite flammable vegetation, but that the risk of construction igniting a fire would be low because vegetation would be cleared before development of the vineyard. Page 1-7 of the Draft EIR also states that operations and maintenance activities would be similar to activities already occurring in the project area, which include operation of an existing vineyard.

Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant (see Final EIR Chapter 2, *Revisions to the Draft EIR*). This information describes practices currently implemented on the adjacent Stagecoach property and that would be implemented for the proposed project. See Global Comment Response 1 and Response to Comment I3-54.

- I3-4 As stated in Draft EIR Section 1.1, Purpose of the Environmental Impact Report, the Draft EIR was prepared in conformance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and Napa County's Local Procedures for Implementing the California Environmental Quality Act (Napa County 2015). The purpose of the EIR is to identify the significant effects of a project on the environment (California Public Resources Code Section 21002.1), not the effects of the environment on a project, as stated in the comment. See also Response to Comment 13-3.
- **13-5** The commenter appropriately notes that removal of existing vegetation on the site would reduce the project site's carbon sequestration potential. This is recognized in Draft EIR Impact 3.2-5, which states that removal of existing vegetation on the site would result in the one-time removal of carbon storage in plant material above and below ground and an ongoing reduction of the site's carbon sequestration potential. However, introducing a vineyard to the site would also replace some of these losses. The net change in carbon storage and carbon sequestration potential from the replacement of existing vegetation with vineyard is presented quantitatively in Draft EIR Impact 3.2-5.

To estimate lifetime carbon sequestration emissions, Draft EIR Impact 3.2-5 assumes a typical project life of 30 years. This is consistent with the project life assumed for amortization of construction emissions based on the South Coast Air Quality Management District's *Interim CEQA Greenhouse Gas Significance Threshold* guidance document (SCAQMD 2008). This assumption was used because neither the County nor the Bay Area Air Quality Management District (BAAQMD) has adopted a methodology or quantitative threshold, such as those that exist for criteria pollutants, for evaluating the significance of an individual project's construction-related contribution to GHG emissions.

This approach is consistent with industry practice for typical land use development projects. However, because carbon sequestration emissions are reported as an annual estimate, increasing the project's life to 100 years as suggested in the comment would not increase the annualized emissions from carbon sequestration. Rather, doing so would reduce the total annual average (carbon sequestration and storage), as it would distribute the one-time carbon storage loss over a period of 100 years instead of 30.

Therefore, the commenter improperly states that using a project life of 30 years would underestimate the potential loss of carbon sequestration. The County acknowledges that the life of a vineyard is greater than 30 years, but using a 30-year period provides a more conservative estimate. Updated carbon storage factors are discussed in Responses to Comments O1-9 through O1-13.

- **I3-6** As stated in Response to Comment I3-5, using a 100-year project life would actually reduce the total annual average emissions from carbon sequestration, as it would distribute the one-time carbon storage loss over a period of 100 years instead of 30; therefore, the Draft EIR analysis is more conservative. Further, the project site's future land use and sequestration potential 100 years in the future, if and when vineyard operations cease, is too speculative to analyze under CEQA (see Response to Comment I3-12).
- **13-7** All data sources for carbon storage and carbon sequestration factors, assumptions, and calculations are included in Draft EIR Appendix C, *Air Quality Modeling Results and Carbon Sequestration Analysis*.
- 13-8 The comment provides estimates of aboveground biomass in California chaparral but does not provide carbon storage factors. The Napa County Revised Draft Climate Action Plan, Appendix A (2016), was used to estimate carbon storage for grasslands and scrublands for the analysis described in Draft EIR Impact 3.2-5 (see Draft EIR Appendix C). Based on an updated literature review conducted in response to comments received on the Draft EIR, the County has found it adequate to update the carbon storage factor for the chamise alliance to reflect shrubland habitat rather than grassland. The analysis in the Draft EIR previously categorized chamise alliance as grassland and used a carbon storage factor from the Revised Draft Climate Action Plan of 2.6 metric

tons (MT) of carbon (C) per acre. However, because vegetation onsite is a mix of grassland and shrubland, the analysis has been updated to use a carbon storage factor of 12.8 MT C per year, also from the Revised Draft Climate Action Plan, that is more reflective of the higher carbon storage in shrublands. The sources for both factors are cited in the Revised Draft Climate Action Plan and Appendix C of the Draft EIR. See Response to Comment O1-13 for the revised estimates.

- **13-9** The comment is noted. The comment provides a comparison of aboveground and soil carbon storage in wildlands and vineyards. This is consistent with the carbon storage factors used in the Draft EIR analysis (Impact 3.2-5). The carbon sequestration analysis in the Draft EIR is based on specific carbon storage and sequestration factors for each vegetation type that would be affected by the proposed project. The study by Hollander and coauthors, cited in the comment, includes carbon storage factors for wildland in general and does not provide carbon sequestration rates. The methodology used in the Draft EIR analysis is more specific to the project site's vegetation and accounts for change in carbon sequestration in addition to carbon storage; therefore, this methodology is considered more accurate and appropriate.
- **I3-10** The analysis in the Draft EIR (Impact 3.2-5) recognizes that the carbon sequestration rate of vineyards is very low and uses a factor of 0.016 MT C per acre per year (Draft EIR Appendix C). In comparison, aboveground and belowground carbon storage factors for vineyards are 34 and 1.2 MT C per acre, respectively. Therefore, most of the carbon storage in vineyards is below ground. This is because once the vineyard is established, the vines go dormant in winter but the belowground matter remains intact. Therefore, the commenter improperly states that development of vineyards will not result in any long-term carbon storage.
- **13-11** The commenter requests a side-by-side analysis of annual wildland carbon sequestration and annual vineyard carbon sequestration, taking into account emissions from construction and operation of the vineyards. The Draft EIR provides this information, which has been revised with an updated carbon storage factor for chamise alliance, as stated in Response to Comment I3-8. Instead of classifying all vegetation on the project site as wildland as suggested by the comment, the analysis in the Draft EIR uses carbon storage and sequestration factors for the specific vegetation types found on the project site. The methodology used in the Draft EIR analysis is therefore more specific to the project site's vegetation and accounts for change in carbon sequestration in addition to carbon storage. As a result, this methodology is considered more accurate and appropriate. All carbon storage factors used in the Draft EIR's analysis are derived from published and verified sources that are included in Appendix C of the Draft EIR and the County's Revised Draft Climate Action Plan.
- **I3-12** The comment states that vineyard life-cycle assessments of all GHG emissions are not included in the Draft EIR analysis. The comment specifically addresses GHG emissions

from pesticide manufacturing and fields' nitrous oxide (N₂O) emissions associated with cover crops.

Generally agricultural cover crops are typically incorporated into crop rotations to reduce soil erosion and nitrate leaching and increase soil organic matter during fallow periods. However, when seasonal cover crops are used, the nitrogen in the decaying biomass from the cover crops at the end of the season, combined with the nitrogen in applied manure for the next crop in the rotation, is often too much for the soil to hold and is released as N_2O . N_2O is particularly an issue when legumes are used as cover crops in between plantings (Penn State University 2021).

The project, however, proposes to utilize a permanent cover crop strategy in which there would be no seasonal decay. The permanent cover crop would be generated during the first year by seeding with the specified cover crop seed mix and would be managed each year such that the required percentage of vegetative cover would be maintained throughout the vineyard area (see Draft EIR Chapter 2, *Project Description*, and the specific vegetative cover by block in Draft EIR Appendix A, page EC-5). Any areas that have less than the required percentage of vegetative cover would be reseeded and mulched until adequate coverage is achieved. Therefore, the permanent cover crop is not likely to be a major source of N_2O emissions, as the decay emissions would be minimized.

Estimating GHG emissions from the manufacturing of pesticides is beyond the scope of this analysis, as it would require data on the types of pesticides that would be used, the sources of raw materials and the manufacturing processes involved, and other data that are not readily available. With regard to the impacts of a project under CEQA, State CEQA Guidelines Section 15064(d) states that a lead agency "shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project." The State CEQA Guidelines define a direct physical change as "a physical change in the environment which is caused by and immediately related to the project." The State CEQA Guidelines define an *indirect physical change* as "a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project." However, the State CEQA Guidelines also advise against speculating on indirect changes, stating that "an indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable." Without the data needed for estimating GHG emissions from pesticide manufacturing, any assumptions and estimates would be considered speculative, and therefore are not included in the analysis.

I3-13 As shown in Table 3.2-9 of the Draft EIR, in Section 3.2, *Air Quality and Greenhouse Gas Emissions*, mobile sources (i.e., worker trips and truck trips) would contribute only a small percentage of the project's total operational emissions. Based on the revised

Table 3.2-9 presented in this Final EIR and described in Response to Comment O1-12, mobile-source emissions would account for 7 percent of the proposed project's total operational GHG emissions. For the estimate of GHG emissions from worker trips, the default one-way trip length of 10.8 miles in CalEEMod was increased to 14 miles based on information provided by the Applicant. Even if the trip length were to be further increased to 40 miles as suggested in the comment, the change in emissions would not affect any significance determinations in the EIR, as mobile-source emissions would represent a very small percentage of the proposed project's total GHG emissions.

Estimating emissions from migration of farmworkers to the project area would also be considered speculative, as there no data are available on where the workers would travel from and how far they would travel. As explained in Response to Comment I3-12, CEQA requires the inclusion of only those sources that are quantifiable with reasonably foreseeable assumptions. It is current best practice under CEQA to estimate emissions resulting from the direct activities of a project without engaging in speculation, for those activities under the influence and control of the county, using methods that are consistent with statewide accounting. Therefore, GHG emissions from any migration of workers that may or may not occur is considered speculative and not included in the analysis.

- **13-14** As noted in Draft EIR Section 2.6, *Vineyard Operations and Maintenance*, the proposed project would promote sustainable agricultural practices. The proposed project also includes a permanent no-till cover crop that would be maintained at between 75 and 85 percent density (see Draft EIR Appendix A page EC-5 for the specific vegetative cover by block). This is supported by both the Napa County General Plan and the County's Revised Draft Climate Action Plan and is part of the checklist of best management practices that projects are encouraged to use. Therefore, the proposed project is consistent with the policies in the General Plan, including Policy CON-65 cited in the comment. Additionally, implementation of Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5, which would reduce the project acreage by approximately 25.37 gross acres, would further reduce emissions as shown in Table 3.2-9 (see Final EIR Chapter 2, Revisions to the Draft EIR, and Response to Comment O1-13) and permanently protect the preservation area with a mitigation easement (Mitigation Measure 3.3-1a). Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative discussed in Draft EIR Chapter 5, Alternatives Analysis, also include the implementation of all mitigation measures and the reduced project acreage identified in the Draft EIR for the proposed project.
- I3-15 The significance determination for GHG impacts is based on comparison to the thresholds recommended by BAAQMD and on the consistency of the proposed project with applicable plans and policies in place to reduce GHG emissions. Draft EIR Impact 3.2-6 presents the project's consistency with not just the Napa County General Plan and Revised Draft Climate Action Plan, but also the California Air Resources Board's 2017

Scoping Plan Update designed to reduce statewide GHG emissions. See also Response to Comment I3-14.

I3-16 Potential impacts on biological resources are addressed in Draft EIR Section 3.3, *Biological Resources*. No habitat for rainbow trout, foothill yellow-legged frog, or California giant salamander occurs on the project site.

The blue lines shown on Draft EIR Figure 3.3-5 are ephemeral drainages mapped by LSA during surveys conducted for preparation of the proposed project's biological resources report (Draft EIR Appendix D). One dotted-blue-line stream occurs within the project site on the U.S. Geological Survey (USGS) map; as stated on page 3.3-18 of the Draft EIR, it runs north-south between proposed vineyard Blocks Y14, X12, X10, and Z20. Dotted blue lines on the USGS map indicate ephemeral drainages. No solid-blueline streams are mapped within the project site by USGS (https://livingatlas.arcgis.com/ topoexplorer/index.html) or the U.S. Fish and Wildlife Service (USFWS) online wetlands mapper (https://www.fws.gov/wetlands/data/mapper.html). As discussed in Draft EIR Chapter 2, Project Description, the proposed project design incorporates setbacks from all drainages on the project site, with the exception of crossings required for access (discussed under Impact 3.3-3). The two ephemeral streams on the project site that meet the County's definition of a stream (Draft EIR pages 3.3-17 and 3.3-18) have notouch setbacks ranging from 55 to 105 feet based on slope, in accordance with Section 18,108,025 of the Napa County Code. In addition, the proposed project would avoid other waters that are not defined by the County as streams and would maintain 50-foot buffers from these areas, consisting of 26 feet of undisturbed native vegetation and 24 feet of vegetated vineyard avenue.

These features would be affected during construction. However, as stated in Mitigation Measure 3.3-3, all necessary permits would be obtained before the construction of stream crossings and replacement of culverts, and the owner/permittee would comply with all permit minimization and mitigation measures. Impacts on waters of the United States would require a minimum mitigation ratio of 1:1 (mitigated:affected) to comply with the U.S. Army Corps of Engineers' no-net-loss policy; however, the San Francisco Bay Regional Water Quality Control Board may require a ratio of 2:1 (mitigated:affected) or more. During construction of rocked water crossings and culvert replacement, all necessary best management practices would be implemented to ensure that no soil or other materials would be discharged into the onsite stream courses. Before constructing and installing stream crossings and replacing culverts associated with #P18-00446-ECPA, and before developing vineyard blocks reliant on those crossings, the owner/ permittee would be required to obtain—and to demonstrate to Napa County that it has obtained—all required authorizations and/or permits from agencies with jurisdiction over waters of the United States or the state.

No impacts on downstream tributaries are anticipated to result from the minor impacts on the ephemeral drainages onsite. Ephemeral drainage features would be affected during construction, as described above and in Draft EIR Section 3.3; however, all permits would be obtained before construction to ensure no net loss of waterways, and best management practices would be installed to ensure that no soil or other materials would be discharged into the onsite stream courses. With the setbacks proposed, no impacts on downstream tributaries during vineyard operation are anticipated. Therefore, no assessment of potential impacts on downstream habitat for rainbow trout, foothill yellow-legged frog, or California giant salamander is warranted. See also Response to Comment I5-10.

I3-17 As stated in Response to Comment I3-16, no solid-blue-line streams are mapped within the project site by USGS (https://livingatlas.arcgis.com/topoexplorer/index.html) or the USFWS online wetlands mapper (https://www.fws.gov/wetlands/data/mapper.html). Although some of the ephemeral drainages onsite are tributary to the two offsite solid-blue-line drainages east and west of the project site boundaries, which are tributary to Rector Canyon, no downstream impacts associated with development or land use practices are anticipated.

Further, Impact 3.5-1 in Draft EIR Section 3.5, *Geology and Soils*, states that implementing the Erosion Control Plan for the proposed project would reduce annual soil loss from the development area by approximately 160.01 tons (29.78 percent) compared to existing conditions. Impact 3.7-3 in Draft EIR Section 3.7, *Hydrology and Water Quality*, states that there are no predicted net increases in peak runoff and no negative hydrologic impacts are expected to result from the proposed project. See also Response to Comment I5-11.

- **I3-18** The project site does not contain habitat for rainbow trout. As discussed in detail in Responses to Comments I3-16 and I3-17 and Draft EIR, no impacts on downstream tributaries would result from the proposed project. Therefore, no downstream impacts on habitat for potentially occurring special-status species and rainbow trout, which are currently not listed as a special-status by the USFWS or CDFW, would occur. See also Response to Comment I5-12.
- I3-19 The project site does not contain habitat for foothill yellow-legged frog. As discussed in detail in Responses to Comments I3-16 and I3-17 and Draft EIR, no impacts on downstream tributaries would result from the proposed project. Foothill yellow-legged frogs are found in permanent water sources year round. The project site contains small ephemeral drainages that transport water after storm events. The ephemeral drainages lack riparian corridors along the banks. Therefore, the ephemeral drainages onsite do not contain suitable habitat for foothill yellow-legged frog. See also Response to Comment I5-13.

- **13-20** The methodology in the Draft EIR's biological resources section (Section 3.3) evaluates special-status species based on the agency lists of regionally occurring species. California giant salamander is a California species of special concern. The California Department of Fish and Wildlife California Natural Diversity Database's list of species documented on the quadrangle of the project site and eight surrounding quadrangles does not list California giant salamander as occurring in the vicinity of the project site. Further, the project site does not provide suitable habitat for this species. As discussed in detail in Responses to Comments I3-16 and I3-17, no impacts on downstream tributaries would result from the proposed project.
- I3-21 The project site does not provide any suitable habitat for the native and/or special-status species identified in the comment. The watershed downstream would not be affected in any way by the proposed project (see Responses to Comments I3-16 and I3-17). Therefore, no discussion of invasive aquatic species is warranted in the project planning documents.
- **I3-22** See Responses to Comment I3-18 through I3-21.
- **I3-23** As documented on page 3.3-35 of the Draft EIR, exhaustive biological resources surveys were conducted on the project site: "LSA biologists and botanists conducted biological and botanical resource surveys on March 5 and 6, 2015; April 6, 8, and 22, 2015; May 8 and 20, 2015; June 17, 2015; August 8, 2015; March 16, 18, 23, 24, 25, and 29, 2016; and April 1, 4, and 5, 2016 (LSA 2018). LSA mapped potential waters of the United States on April 6 and 8, 2015. LSA conducted wildlife surveys on March 28, 2018, and June 5, 2018. LSA conducted protocol-level rare plant surveys on March 28 and 29, 2018; April 18 and 19, 2018; May 17, 2018; and June 5, 2018. ESA conducted botanical inventories and general biological resource surveys on May 14 and 15, 2019, that focused on ground-truthing the special-status plants and biological communities mapped by LSA (2018)."

The species mentioned in the comment, while potentially occurring in the area, are not classified or listed as special-status or sensitive species and therefore consideration under CEQA is not warranted. Furthermore, as disclosed and assessed in the Draft EIR, potential impacts to habitat that may support these species as well as special-status species discussed in the Draft EIR would be less than significant with the implementation of the identified mitigation measures; the project alternatives identified in Draft EIR Chapter 5 also protect these species as well as species.

Regarding California giant salamander, the project site does not provide a moist habitat for individuals to inhabit. See also Response to Comment I3-20.

Impact 3.3-4 includes a discussion of wildlife movement. Implementing Mitigation Measure 3.3-4 would ensure the maintenance of sufficiently sized wildlife corridors and the installation of fencing that would reduce potential negative effects on the movement of smaller animals, while effectively excluding deer and wild pigs from the vineyard. Thus, implementing this mitigation measure would reduce impacts on wildlife corridors to a less-than-significant level.

13-24 The purpose of the fencing is to prevent deer from entering the vineyards. Should deer or other wildlife be discovered within the fencing, the Applicant's management approach is to open the gates and allow the wildlife to leave on its own accord.

See also Response to Comment O6-18 for information on inspections, monitoring, security, and compliance provisions.

- **13-25** As stated in Response to Comment I3-3, a discussion of the project's contribution to cumulative climate change effects is included in Draft EIR Section 3.2, *Air Quality and Greenhouse Gas Emissions*, Impacts 3.2-5 and 3.2-6. The proposed project's construction-related and operational GHG emissions would be less than significant, and the project includes several components to reduce emissions consistent with the goals of the County's Revised Draft Climate Action Plan and the 2017 Scoping Plan Update.
- **I3-26** See Responses to Comments I3-16 through I3-25.
- **13-27** The water availability analysis for the proposed project prepared by Richard C. Slade and Associates, included as Draft EIR Appendix J, relied on the long-term annual average groundwater recharge volume and therefore generally includes some effects of climate change projected to occur in Northern California. In the *Guidance for Climate Change Data Use During Groundwater Sustainability Plan Development* published by the California Department of Water Resources (DWR 2018), "the northern and central regions of California are expected to experience an increase in precipitation" for both the 2030 and 2070 projected climate conditions. Average annual precipitation in the San Francisco Hydrologic Region is projected to increase by 4.6 percent and 10.2 percent in 2030 and 2070, respectively (Figures A-13 and A-14 in DWR 2018). The analyses presented in the referenced Swain et al. (2018) article found "statistically robust increases in the simulated frequency of extremely heavy precipitation events" and the results of the work "suggest that future multi-year droughts in California may exhibit an increased propensity to be interrupted by very wet interludes" (Swain et al. 2018).

The drought analysis presented in Draft EIR Appendix J (RCS 2020) is quite conservative. As described in that text, the theoretical drought envisioned for the analysis would last six years, during which only 50 percent of average rainfall would occur. The theoretical drought duration and rainfall total were chosen to represent a conservative drought based on details from historic rainfall records and prior drought periods. The theoretical rainfall volume of 50 percent of average is similar to the rainfall total during the two-year drought (Water Year [WY] 1975–76 to WY 1976–77), and a six-year drought duration is similar to WY 1986–87 to WY 1991–92, when total rainfall was 75 percent of average; see Table 5 of Draft EIR Appendix J (RCS 2018). Hence, the

theoretical drought conditions (magnitude and duration) are more conservative than the conditions recorded in the actual rainfall record.

The recharge calculations in Draft EIR Appendix J are based on average rainfall for the Stagecoach North property (RCS 2018). This means that years of above-average rainfall and below-average rainfall (drought periods) that have occurred during the period of record are inherently included in the calculations presented in Appendix J. Over the long term, the recharge calculated for the property is higher than the demand. Hence, more recharge is projected to occur than is required to be extracted for the proposed project in the future. To help address uncertainty regarding future rainfall total and projections, conservative estimates of rainfall recharge percentages were employed in Appendix J. See also Response to Comment I5-2 and Final EIR Appendix B (RCS 2021).

- **13-28** Monitoring data for the two wells proposed for use with operation of the proposed project exist within the footprint of the project parcel and are included in Draft EIR Appendix K. The proposed water supply from the Stagecoach North wells is not part of the Stagecoach South approved operating plan. To date, the wells in place on the Stagecoach North site have been operated occasionally to sustain function, monitor water quality, and maintain equipment. Only in that instance has water been applied to the Stagecoach South property, to prevent waste of the resource. Stagecoach South operates on wells within the boundaries of its approved operating plan and does not need supplemental water from any other sources. See also Response to Comment I5-3.
- **13-29** Draft EIR Appendix K, Figures 2B through 4B, show the water level data for the Stagecoach South mitigation monitoring wells plotted along with a "cumulative departure from mean rainfall" curve. These cumulative departure curves are shown to help define rainfall trends over the periods of rainfall record at the rain gages listed. In general, when the slope of a cumulative departure from the mean rainfall curve is negative (i.e., the curve slopes downward to the right over time), total rainfall in each water year during that period was at or below the long-term mean water year rainfall. Alternatively, when the slope of the departure curve is positive (i.e., sloped upward to the right over time), total rainfall in each water year during that period tended to be at or above the long-term mean water year rainfall.

In general, the water level changes over the period of water level record (roughly 2008 through 2019) depicted on Figures 2B through 4B follow the changes in the two cumulative departure curves, including the water levels in Well 7 (shown on Figure 4B). This suggests that changes in water levels in the wells are responding to changes in annual rainfall at the Stagecoach property.

On page 3 of Draft EIR Appendix K, it is noted that "after further review, Stagecoach Vineyards reports that the January 2015 to June 2016 dataset was erroneous due to possible transducer malfunction" (RCS 2020). This malfunction resulted in erroneous

reporting of water level measurements in late 2016, and the likely erroneous water levels are obscuring the trend of the graph. Ignoring the likely erroneous data, water levels in Well 7 do show some recovery as a result of the post-drought rain. The amount of recovery observed is commensurate with the trend in the cumulative rainfall departure curve, and similar to the water level trends in the other mitigation monitoring wells. See also Response to Comment I5-4 and Final EIR Appendix B (RCS 2021).

- 13-30 The Draft EIR assesses groundwater recharge and demand within the appropriate context. The Stagecoach North property is not located within a "groundwater basin" as defined by the State of California. Groundwater beneath the Stagecoach North property is stored in a fractured rock aquifer system (i.e., rocks of the Sonoma Volcanics). Therefore, the proposed project would not result in decreases in the availability of groundwater to the municipal water supply. See also Response to Comment I5-5 and Final EIR Appendix B (RCS 2021).
- **I3-31** The proposed project does not propose to develop the balance of the project site acreage remaining after vineyard conversion to roads and turnarounds, as stated by the commenter. Draft EIR Section 2.4, Description of the Proposed Project, states that the proposed project would upgrade 0.6 mile of Level 2 roads on the project site to Level 1 to provide primary access to the proposed vineyard blocks. These Level 1 roads would include erosion control features, such as outsloping, the removal of berms, and construction of frequent rolling dips or water bars where needed, and would be maintained with crushed rock. The proposed project would use 0.1 mile of existing Level 2 roads that would receive the same best management practices and road shaping as the Level 1 roads, except that the roads would not be surfaced with crushed rock. The Level 2 roads would be part of the vineyard avenues and turn around areas after implementation of the project and would be subject to the same vegetative cover crop requirements as the adjacent vineyard block pursuant to the Erosion Control Plan. In addition, the project would decommission 0.2 mile of existing dirt roads by incorporating them into the proposed vineyard blocks (see also the road plan in the Erosion Control Plan, Draft EIR Appendix A).

The contribution of vineyard access roads to erosion was assessed in the Draft EIR. As discussed in Draft EIR Section 3.5, *Geology and Soils*, Impact 3.5-1, increased traffic on existing roads during vineyard construction and operation may accelerate erosion and sedimentation, particularly on primary access roads at stream crossings. In areas of unstable slopes, further slope instability could result, which could pose the threat of erosion and sediment transport. By implementing the road plan included in the Erosion Control Plan, the proposed project would comply with the requirements of the San Francisco Bay Regional Water Quality Control Board's Farm Plan for vineyard properties in the Napa River watershed. Vineyard avenues are also included within the proposed clearing limits assessed in the Soil Loss Analysis (Draft EIR Appendix H) and discussed in Draft EIR Impact 3.5-1.

I3-32 As stated in Draft EIR Impact 3.7-1 on page 3.7-21, the tributaries in the development area that meet the County's definition of a stream (Napa County Code Section 18.108.030) have required setbacks of 55–150 feet depending on slope, as outlined in Napa County Code Section 18.108.025. All waters of the United States not requiring a County stream setback, and all wetlands, would be avoided and afforded a 50-foot buffer consisting of a 26-foot undisturbed area and a 24-foot vegetated vineyard avenue. The use of stream setbacks to reduce pollutant transfer and nutrient loading to receiving waters is an effective and appropriate mitigation measure that is consistent with the Napa County Code (Section 18.108.025), the State CEQA Guidelines (Section 15126.4[a]), and Napa County General Plan policies (CON-18, CON-45, and CON-50).

Separately, as discussed in Draft EIR Impact 3.7-3, incorporating the erosion and runoff control measures proposed in the Erosion Control Plan would result in an overall decrease in the volume and rate of runoff from project site watersheds during post-project conditions. Further, as stated in Draft EIR Impact 3.5-1 and detailed in Table 3.5-4 on Draft EIR page 3.5-22, implementing the Erosion Control Plan would reduce annual soil loss from the development area by approximately 160.01 tons (29.78 percent) compared to existing conditions.

The results of the Universal Soil Loss Equation calculations show soil loss decreasing during post-project conditions in all individual transect areas in the proposed vineyard blocks, with the exception of block transect Y16C. As noted in the soil loss analysis, the calculated increase in soil loss at block transect Y16C (0.09 ton per year) would be more than offset by the calculated soil loss decrease at block transect Y16D (11.33 tons per year), located upstream of block transect Y16C. Therefore, the proposed project would result in no impacts related to sediment erosion and yield. The project would be consistent with Napa County General Plan Policy CON-48 because it would maintain pre-development conditions for sediment erosion.

Pre-project land cover values were based on existing conditions verified by PPI Engineering and Napa County at a site visit on December 1, 2015, and a follow up visit by PPI on November 2, 2018, as stated in Draft EIR Section 3.5, *Geology and Soils* (page 3.5-20), and in Draft EIR Appendix H (PPI Engineering 2018). Post-project values were calculated using percent cover specified in the Erosion Control Plan. Pre- and postcover values are consistent with the U.S. Natural Resources Conservation Service publication *The Universal Soil Loss Equation Special Applications for Napa County, California* (May 1994).

By implementing the road plan included in the Erosion Control Plan, the proposed project would also comply with the requirements of the San Francisco Bay Regional Water Quality Control Board's Farm Plan for vineyard properties in the Napa River watershed (San Francisco Bay Regional Water Board 2018).

- I3-33 As discussed in Response to Comment I3-32, Draft EIR Impact 3.7-3 states that incorporating the erosion and runoff control measures proposed in the Erosion Control Plan would result in an overall decrease in the volume and rate of runoff from project site watersheds during post-project conditions. See also Comment Letter S1 from the Department of Veterans Affairs and Response to Comment S1-1.
- **13-34** The proposed project would satisfy all state and local requirements for erosion control to protect the watershed from increased and/or polluted runoff and erosion as a result of the project.

The subject property is located within a Sensitive Domestic Water Supply Drainage (Rector Reservoir). Therefore, the project, if approved, would be subject to the security provisions of Napa County Code Section 18.108.140(A) to ensure the proper installation and ongoing maintenance of the required erosion and runoff control measures, implemented through the condition below.

Security (Sensitive Domestic Water Supply Drainage): The Owner/Permittee shall submit within ten (10) days of the effective date of this approval or prior to the commencement of earthmoving activities (whichever comes first) the following securities required pursuant to Napa County Code Section (NCC) 18.108.140(A) for the purpose of ensuring the proper installation and ongoing maintenance of the required erosion and runoff control measures in the manner specified in erosion control plan #P18-00446-ECPA. Securities may be posted in one or more of the forms specified NCC Section 17.38.030.

- a. Security in the amount of the estimated cost of original installation of the required erosion control measures.
- b. Security in the amount of twenty-five percent of the estimated costs of original installation of the required erosion control measures.

The project, if approved, would also be subject to the standard condition and applicable Conservation Regulations provisions identified below that are associated with ongoing monitoring, inspection, and compliance of Erosion Control Plan Application and vineyard development and operations:

Erosion and Runoff Control (i.e. Hydromodification) Installation and Operation: The following conditions shall be incorporated by reference into #P18-00446-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

a) Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to straw wattles, rock-filled avenue/level spreader, rocked crossing, and permanent no-till cover, shall be installed by September 1 during the same year that initial vineyard development occurs. These requirements shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan (#P18-00446-ECPA) shall oversee its implementation throughout the duration of the project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have be installed and are function correctly. Prior to the first winter rains after construction begins, and each year thereafter until the project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.

- b) All temporary and permanent erosion control measures shall be free of plastic monofilament netting (e.g., straw wattles wrapped in black plastic mesh) and should generally be composed of biodegradable or compostable materials, and/or utilize biodegradable or compostable materials in their construction, so that reptiles, amphibians, or animals do not become entangled within them.
- c) Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 90 percent within the vineyard and vineyard avenues. The cover crop may be strip sprayed, with a strip no wider than 1 foot (12 inches) wide at the base of vines, with postemergent herbicides: no pre-emergent sprays shall be used. Should the permanent no till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.
- 13-35 The proposed project would not cause significant impacts on traffic conditions on Soda Canyon Road that cannot be mitigated, as stated by the commenter. The County acknowledges the commenter's concerns related to the existing functionality of Soda Canyon Road. The comment addresses an existing condition, not the adequacy of the Draft EIR. The proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions. As discussed on page 3.10-8 of Section 3.10, *Transportation,* of the Draft EIR, the analysis of proposed project impacts considered the roadway geometrics of the existing driveway off Soda Canyon Road that would be used to access the private roadways within the project site. The Draft EIR concluded that sight distances are adequate to allow trucks and passenger vehicles to safely turn into and out of the driveway that leads to the project site.

The County acknowledges the commenter's concerns related to collisions on Soda Canyon Road. This comment refers to an existing condition, not the potential for the proposed project to result in an impact on traffic operating conditions on Soda Canyon Road; therefore, it does not address the adequacy of the Draft EIR. As stated above, the proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions.

Vehicle classification (i.e., number of axles) was not specified in the traffic counts conducted for the project in October 2019; therefore, the Draft EIR did not provide a characterization of the mix of heavy trucks and passenger vehicles. However, based on the existing volume–capacity comparisons on Soda Canyon Road provided on page 3.10-6 of the Draft EIR (i.e., 47 percent near Silverado Trail and 13 percent near the driveway leading to the project site), any adjustments made to account for the presence of a large number of heavy trucks would not change the conclusion that operating conditions on Soda Canyon Road would remain substantially similar to current conditions.

I3-36 As stated on page 3.10-1 of Draft EIR Section 3.10, *Transportation,* 24-hour traffic counts were collected on Soda Canyon Road on four days in fall 2019: October 4, 5, 11, and 12. These dates were selected in accordance with direction from the County's Public Works Department, which states that for wineries (including vineyards):

[T]rip counts shall be collected for two Fridays and two Saturday under normal traffic conditions (e.g., without road closures, not during significant regional or weather events, and outside of school breaks). Weekday trips on the roadway network can be determined by averaging the trips from the two Fridays (for weekday volumes) and from the two Saturdays (for weekend volumes). Counts shall be for 24 consecutive hours on each day that counts are taken.

The dates selected by the County are intended to represent a maximum level of vehicle activity on Soda Canyon Road based on the actual grape harvest period in 2019. These traffic data were used as a basis for the analysis of the proposed project's transportation impacts related to traffic circulation (Impact 3.10-1), which considered the proposed project's contribution to existing traffic volumes during the harvest, and the capacity of the roadway. Therefore, the Draft EIR accurately reflects a worst-case scenario for traffic conditions with and without the proposed project.

Traffic counts were conducted using pneumatic tubes placed across the roadway. The County is in possession of the raw traffic data collected for the proposed project, which can be reviewed as part of the administrative record. Draft EIR Section 3.10, *Transportation,* adequately summarizes the data collection process and provides all relevant information needed to support the impact discussion and conclusions. Therefore, the absence of this level of detail in the Draft EIR is immaterial and does not change any of the impact conclusions. See Responses to Comments I3-37 and I5-15 regarding project-related traffic.

13-37 The commenter states that the project would "generate a steady traffic increase of up to 4% above and beyond any normal variation," but does not provide any evidence that this would be the case. The analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project construction would generate up to 24 one-way daily vehicle trips, while project operation would generate up to 28 one-way daily vehicle trips. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than

1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that the impact would be less than significant. This conclusion is based on facts and analysis, rather than opinions.

Further, should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. This would reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. The mitigation measures are summarized in Draft EIR Table ES-2, and Table 3.3-5A shows the mitigated proposed project acreage with implementation of the biological resources mitigation measures identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage). Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, Alternatives Analysis. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include implementation of all mitigation measures identified in the Draft EIR for the proposed project and would also reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. See also Responses to Comments I5-15 and O6-3, and see Final EIR Chapters 2 and 4 and Final EIR Appendix D for the updated mitigation measures and conditions of approval.

I3-38 The County acknowledges the commenter's disagreement with the statement on page 3.10-5 of the Draft EIR regarding the times of the day when workers associated with harvest activities would travel to and from the project site. The commenter does not provide any evidence that this statement is incorrect, other than referencing patterns experienced by existing commuting vineyard workers.

As a point of clarification, the statement in the Draft EIR refers only to harvest activities, and not to any other operation and/or maintenance activities that may occur at other times of the year. The harvest is the most labor intensive period for vineyards, generating the most traffic, which is why it is the focus of the analysis of project operation transportation impacts in the Draft EIR.

Based on the Applicant's past vineyard operations experience adjacent to the project site, the time of day that harvest activities typically occur would correspond to inbound vehicle trips occurring before 6 a.m. and outbound vehicle trips between 2 and 3 p.m. The peak period of traffic, according to the 2019 traffic counts conducted for the proposed project, occurred between 6 and 7:15 a.m. in the eastbound direction (inbound) and between 2:45 and 4:30 p.m. in the westbound direction (outbound) on Fridays during the harvest period. On Saturdays, the peak hours of traffic were between 5:30 and 6:45 a.m. in the eastbound direction (inbound) and between 12:30 and 1:45 p.m.

in the westbound direction (outbound). Therefore, although some overlap with peak traffic conditions on Soda Canyon Road could occur, the majority of vehicle trips would occur during off-peak hours. Furthermore, as stated on page 3.10-5 of the Draft EIR, harvest operations would generate only 28 one-way daily vehicle trips, meaning that the incremental increase of project-generated vehicle trips compared to existing traffic volumes would not be substantial during both peak- and off-peak travel times. Vehicle trips would be further reduced with the mitigated proposed project or alternatives (as stated in Response to Comment I3-37), given the reduced acreage that would be developed and operated.

13-39 The County acknowledges the commenter's disagreement with the transportation impact analysis and conclusions of the Draft EIR. This disagreement, however, does not undermine the validity of the data or analysis in the Draft EIR, or the conclusions reached. The transportation analysis was performed using the methodology described in Draft EIR Section 3.10.3 (beginning on page 3.10-4) and environmental standards. It considers input received during scoping (Draft EIR Appendix B), the reference materials cited on pages 7-11 and 7-12 of Draft EIR Chapter 7, *References*, and the professional technical resource expertise of the EIR preparers (Draft EIR Chapter 6). Conclusions are based on facts and analysis, rather than opinions. While acknowledging the commenter's disagreement, the County chooses to rely on the data and other information and analysis documented in the Draft EIR.

The commenter offers an alternate approach to establishing trip generation for the proposed project, using the ratio of vineyard acres:workers:daily trips. This proposed methodology is not accurate, as it relies on assumptions that are not based on substantial evidence. The methodology used in the Draft EIR to evaluate the potential impact of project-generated vehicle trips on traffic operating conditions on Soda Canyon Road is based on actual traffic counts conducted for the project in 2019, and on estimates of the maximum number of worker vehicle and truck haul trips required during project construction and operation, as informed by the Applicant's previous vineyard operations experience at the project site.

13-40 The analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project construction would generate up to 24 one-way daily vehicle trips, while project operation would generate up to 28 one-way daily vehicle trips. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Sand Canyon Road. Even if the actual capacity of Soda Canyon Road is lower than the 5,000-vehicles-per-day benchmark noted on page 3.10-6 of the Draft EIR, this nominal increase in traffic volumes with implementation of the proposed project would still result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that both the project and the cumulative impact would be less than significant. This conclusion is based on facts and analysis, rather than opinions.

Vehicle trips would be further reduced with the mitigated proposed project or alternatives (as stated in Response to Comment I3-37), given the reduced acreage that would be developed and operated.

- **13-41** The County acknowledges the commenter's concerns related to the existing functionality of Soda Canyon Road or the private roadway. The comment relates to an existing condition, and does not address the adequacy of the Draft EIR. The proposed project would not modify Soda Canyon Road or the private roadway, nor does it include any other design feature that would result in hazardous conditions. As discussed on page 3.10-8 of Draft EIR Section 3.10, *Transportation*, the analysis of proposed project impacts considered the roadway geometrics of the existing driveway off Soda Canyon Road that would be used to access the private roadways within the project site. The Draft EIR concluded that sight distances are adequate to allow trucks and passenger vehicles to safely turn into and out of the driveway that leads to the project site.
- **13-42** The County acknowledges the commenter's concerns related to collisions on Soda Canyon Road. This comment refers to an existing condition and not the potential for the proposed project to result in an impact to traffic operating conditions on Soda Canyon Road; therefore, it does not address the adequacy of the Draft EIR. As stated in Response to Comment I3-35, the proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions.
- **I3-43** See Response to Comment I3-36, which discusses the dates selected for the traffic counts.
- **13-44** The regional and local roadway network is described in Draft EIR Section 3.10.1, *Environmental Setting*. The County acknowledges the commenter's request for additional setting information; however, setting information over and above the information provided is not required for the impact discussion and conclusions, which are structured according to the State CEQA Guidelines (Appendix G) and *Napa County's Local Procedures for Implementing the California Environmental Quality Act.*
- **13-45** As stated on page 2-2 of the Draft EIR, two grape-hauling trucks weighing 12 tons each would be used during the harvest. In most cases, a load is considered an oversize load, or an oversize/overweight load requiring a State or county oversize load permit when: the load's height exceeds 13 feet 6 inches; the load's width exceeds 8 feet 6 inches; the load's length exceeds 48 feet, and the load's weight exceeds 80,000 pounds (40 tons).
- 13-46 The contribution to overall wear and tear on Soda Canyon Road from infrequent, seasonal haul trips that would occur during the harvest season, as described in Response to Comment I3-37, would be minimal. Truck trips generated during project construction would be limited to four one-way truck trips per day during the first two weeks and last two weeks of project construction, which would also result in a minimal contribution to wear and tear on Soda Canyon Road. The County regularly reviews

pavement conditions on County roadways and addresses deficiencies as part of its Pavement Management Program through funding allocated in the annual budget.

- **13-47** As stated in Response to Comment I3-44, the regional and local roadway network is described in Draft EIR Section 3.10.1, *Environmental Setting*.
- I3-48 As stated in Response to Comment I3-39, the transportation analysis was performed using the methodology described in Draft EIR Section 3.10.3 (beginning on page 3.10-4) and environmental standards. It considers input received during scoping (Draft EIR Appendix B), the reference materials cited on pages 7-11 and 7-12 of Draft EIR Chapter 7, and the professional technical resource expertise of the EIR preparers (Draft EIR Chapter 6). The level of detail of the analysis is sufficient to inform the impact discussion and conclusions, which are structured according to the State CEQA Guidelines (Appendix G) and Napa County's Local Procedures for Implementing the California Environmental Quality Act.

The analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project construction would generate up to 24 one-way daily vehicle trips, while project operation would generate up to 28 one-way daily vehicle trips. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that the impact would be less than significant.

Vehicle trips would be further reduced with the mitigated proposed project or alternatives (as stated in Response to Comment I3-37), given the reduced acreage that would be developed and operated.

- **13-49** Economic benefits from vineyards are not relevant to the Draft EIR traffic analysis. As stated in Response to Comment I3-39, the methodology used in the Draft EIR to evaluate the potential impact of project-generated vehicle trips on traffic operating conditions on Soda Canyon Road is based on actual traffic counts conducted for the project in 2019, and on estimates of the maximum number of worker vehicle and truck haul trips required during project construction and operation, as informed by the Applicant's previous vineyard operations experience adjacent to the project site.
- **13-50** The Draft EIR assesses the impact of daily worker vehicle trips on local roadways with construction and operation of the proposed project. Vineyard development in Napa County is consistent with the goals and policy guidelines of the Napa County General Plan.
- **I3-51** The proposed project would not cause significant impacts on traffic conditions on Soda Canyon Road that cannot be mitigated, as stated by the commenter. The County acknowledges the commenter's disagreement with the transportation impact analysis

and conclusions of the Draft EIR. This disagreement, however, does not undermine the validity of the data or analysis in the Draft EIR, or the conclusions reached. The transportation analysis was performed using the methodology described in Draft EIR Section 3.10.3 (beginning on page 3.10-4) and environmental standards. It considers input received during scoping (Draft EIR Appendix B), the reference materials cited on pages 7-11 and 7-12 of Draft EIR Chapter 7, and the professional technical resource expertise of the EIR preparers (Draft EIR Chapter 6). Conclusions are based on facts and analysis, rather than opinions. While acknowledging the commenter's disagreement, the County chooses to rely on the data and other information and analysis documented in the Draft EIR.

13-52 The commenter improperly states that the cumulative impact analysis only considers part of the segment of Soda Canyon Road that would be affected by the proposed project. The evaluation of traffic operating conditions includes an assessment of the project's contribution to existing traffic volumes at two locations on Soda Canyon Road that, when combined, cover a distance of 6.1 miles: (1) east of the intersection with Silverado Trail; and (2) west of the private road leading to the project site.

The County acknowledges the commenter's concerns related to the existing functionality of Soda Canyon Road. The comment addresses an existing condition, not the adequacy of the Draft EIR. The proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions. The analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project construction would generate up to 24 one-way daily vehicle trips and project operation would generate up to 28 one-way daily vehicle trips. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that the cumulative impact would be less than significant.

Vehicle trips would be further reduced with the mitigated proposed project or alternatives (as stated in Response to Comment I3-37), given the reduced acreage that would be developed and operated. See also Response to Comment I5-14.

13-53 As stated in Draft EIR Section 4.1.2, the analysis of cumulative impacts on biological resources consists of a 3-mile radius around the project site, which includes the Rector Reservoir watershed. The discussion considers cumulative impacts on special-status species with the potential to occur or that are known to occur in the project area. The proposed project would not have a cumulative impact on aquatic invaders. The project site contains few ephemeral drainages, and the small impacts on them that would result from road crossings/culvert replacements would not result in any impact on aquatic

invaders, either on the project site or downstream within Rector Reservoir. See also Responses to Comments I3-21 and I3-22.

I3-54 See Global Comment Response 1. As stated in Response to Comment I3-3, Draft EIR page 1-7 (summarizing text from page 23 of the Wildfire section of the Initial Study, in Appendix B of the Draft EIR) states that project construction would require the presence of some vehicles and heavy equipment that could spark and ignite flammable vegetation, but that the risk of construction igniting a fire would be low because vegetation would be cleared before development of the vineyard. Page 1-7 of the Draft EIR also states that operations and maintenance activities would be similar to activities already occurring in the project area, which include operation of an existing vineyard.

Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant (see Final EIR Chapter 2, *Revisions to the Draft EIR*). This information describes practices currently implemented on the adjacent Stagecoach property owned by the Applicant that would be implemented for the proposed project. See also Response to Comments I1-3 through I1-7, I1-9, I2-3, I3-3, I3-55 through I3-63, I5-6 through I5-9, I5-15, I5-16, and O6-2 through O6-6.

- **13-55** The information provided in the comment about wildfire in the vicinity of the project site is noted. As stated in Global Comment Response 1 and Response to Comment I3-54, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.
- **13-56** As stated in Global Comment Response 1 and Response to Comment I3-54, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant. This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project.

All current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach EAP (Final EIR Appendix A), which includes safety measures that would be implemented during an incident. These measures include an evacuation plan and communication procedures and reporting and communication protocols with management and emergency officials (as described in Global Comment Response 1 and Response to Comment I3-54).

The transportation analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project operation would generate up to 28 one-way daily vehicle trips. The harvest is the most labor intensive period for vineyards, generating the most traffic, which is why it is the focus of the analysis of project operation transportation impacts in the Draft EIR. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that the impact would be less than significant.

Further, should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. This would reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. The mitigation measures are summarized in Draft EIR Table ES-2, and Table 3.3-5A shows the mitigated proposed project acreage with implementation of the biological resources mitigation measures identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage). Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, *Alternatives Analysis*. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include implementation of all mitigation measures identified in the Draft EIR for the proposed project and would also reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated.

Also, based on the Applicant's past vineyard operations experience adjacent to the project site, the time of day that harvest activities typically occur would correspond to inbound vehicle trips occurring before 6 a.m. and outbound vehicle trips between 2 and 3 p.m. The peak period of traffic, according to the 2019 traffic counts conducted for the proposed project, occurred between 6 and 7:15 a.m. in the eastbound direction (inbound) and between 2:45 and 4:30 p.m. in the westbound direction (outbound) on Fridays during the harvest period. On Saturdays, the peak hours of traffic were between 5:30 and 6:45 a.m. in the eastbound direction (inbound). Therefore, although some overlap with peak traffic conditions on Soda Canyon Road could occur, the majority of vehicle trips would occur during off-peak hours.

13-57 The County acknowledges the commenter's concerns related to the existing functionality and safety of Soda Canyon Road. As stated in Response to Comment I3-56, the majority of vehicle trips during harvest would occur during off-peak hours, and the proposed project would result in an increase of less than 1 percent at both count locations on Soda Canyon Road compared to existing daily traffic volumes on Soda Canyon Road. This

nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions.

As stated in Global Comment Response 1 and Response to Comment I3-54, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*. All current Stagecoach employees are trained, and any future employees would be trained, on the Stagecoach EAP (Final EIR Appendix A), which includes safety measures that would be implemented during an incident including an evacuation plan and communication procedures and reporting and communication protocols with management and emergency officials (as described in Global Comment Response 1).

- **13-58** The Stagecoach EAP (Final EIR Appendix A and described in Global Comment Response 1) includes preventive measures such as establishment and maintenance of firebreaks around the perimeter of the property and establishment of safe work zones as necessary. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*. See also Response to Comment I5-6.
- I3-59 See Global Comment Response 1. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, as described in Global Comment Response 1 and Response to Comment I3-54. Information provided in the comment about risk to the wine industry is noted. See also Response to Comment I5-7.
- I3-60 Information provided in the comment about climate change and fire risk is noted. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, as described in Global Comment Response 1 and Response to Comment I3-54. See also Response to Comment I5-8.
- I3-61 The comment is noted. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, as described in Global Comment Response 1 and Response to Comment I3-54. See also Response to Comment I5-9.
- **13-62** As stated in Response to Comment I3-56, the majority of vehicle trips during harvest would occur during off-peak hours, and the proposed project would result in an increase of less than 1 percent at both count locations on Soda Canyon Road compared to existing daily traffic volumes on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions. As stated in Global Comment Response 1 and Response to Comment I3-54, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project

Description under Section 2.6, *Vineyard Operations and Maintenance*. See also Response to Comment I5-15.

- **13-63** The commenter's opinion that the project should be denied is noted and forwarded to the County decision makers for their consideration. See Responses to Comments I3-54 through I3-62 and I5-16.
- **13-64** As shown in Draft EIR Table 3.3-4 on page 3.3-39, approximately 1.06 acres of rock outcrop would be disturbed as part of the proposed project. If the County were to approve the Increased Preservation Area Alternative, approximately 0.98 acre of rock outcrop would be disturbed (see Table 5-1B on Draft EIR page 5-7). The exact amount of rock that would be generated is unknown until development occurs.

The Surface Mining and Reclamation Act's (SMRA) requirements apply to anyone, including government agencies, engaged in surface mining operations in California (including those on federally managed lands) that disturb more than one acre or remove more than 1,000 cubic yards of material. This includes but is not limited to prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials. The proposed project does not include surface mining operations; therefore, the requirements do not apply. Furthermore, activities associated with farming are exempt from SMARA (Public Resources Code Section 2714[a] and California Code of Regulations Section 3505[a][3]). If the Applicant were intending on selling the rock generated from agricultural development then SMARA may apply. See also Response to Comment I5-17.

13-65 Napa County thanks the commenter for the Draft EIR comments provided. Responses to these comments are provided in Responses to Comments I3-2 through I3-64.

Re: Stagecoach North DEIR

Bill Hocker | Mar 29, 2021

Donald Barrella, Planner III Napa County Planning, Building, and Environmental Services Department 1195 Third Street Suite 210 Napa, CA 94559

Re: Stagecoach North Vineyard Conversion Erosion Control Plan Application #P18-00446-ECPA Draft Environmental Impact Report

Mr. Barrella,

Many thanks of the opportunity to respond to the Stagecoach North DEIR.

The No Project Alternative

I would like to express opposition to the project and ask you to consider accepting the No Project Alternative to the proposal. It is, at least in my mind, the superior environmental alternative.

The DEIR states more clearly than I could why this alternative should be considered. I will take the liberty of repeating some of the conclusions here:

"Unlike the proposed project, the No Project Alternative would not require construction equipment and materials, vehicles, and crews; ground-disturbing construction activities; or operation and maintenance activities. For this reason, the No Project Alternative would result in less severe impacts than the proposed project related to air quality and greenhouse gas (GHG) emissions, biological resources, cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, and transportation. Mitigation measures identified for the proposed project also would not apply to the No Project Alternative.

Vegetation removal, implementation of the Erosion Control Plan, and vineyard conversion would not occur under the No Project Alternative. The environmental setting would remain identical to conditions that existed at the time of the Notice of Preparation.

Unlike the proposed project, the No Project Alternative would not generate project construction emissions or result in a cumulatively considerable net increase in criteria pollutants, and this alternative would be consistent with the 2017 Clean Air Plan. Therefore, the No Project Alternative would not require implementation of Mitigation Measures 3.2-1a through 3.2-1c or the open burning condition of approval, as identified for the proposed project, to reduce impacts on air quality to less-than-significant levels. The No Project Alternative would not include activities that would expose sensitive receptors to substantial pollutant concentrations or result in other emissions (such as those leading to odors), adversely affecting a substantial number of people.

In addition, because this alternative would not involve any construction work or operation and maintenance activities, the No Project Alternative would not generate GHG emissions that would have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for reducing GHGs. No impacts would occur in these areas under the No Project Alternative, compared to the less-than-significant impacts that would result from the proposed project.

Because ground-disturbing activities would not occur under the No Project Alternative,

impacts on biological resources, potential impacts on previously unrecorded cultural and tribal cultural resources, and conflicts with applicable sections of the Napa County Code and Napa County General Plan would not occur. The approximately 75.17 acres that provide habitat for approximately 1,912 holly-leaved ceanothus individuals, consisting of chamise alliance (48.85 acres), mixed manzanita (3.77 acres), and scrub interior live oak (22.55 acres), would remain on the project site. Populations of Franciscan onion, narrowflowered California brodiaea, small-flowered calycadenia, two-carpellate western flax, nodding harmonia, Napa lomatium, and green monardella on the project site would not be removed and/or replanted. The 31.63 acres of California bay forest and 0.75 acre of black oak forest would remain on the project site. The approximately 2,790 total trees on the project site with a stem diameter at breast height of 5 inches or more would remain undisturbed. Therefore, the No Project Alternative would not require implementation of Mitigation Measures 3.3-1a through 3.3-k, 3.3-2a, 3.3-2b, 3.3-3, 3.3-4, 3.3-5, 3.4-1a, 3.4-Ib, 3.4-2, and 3.4-3 as identified for the proposed project to reduce impacts on biological resources, cultural and tribal cultural resources, and land use and planning to less-than-significant levels.

With the No Project Alternative, proposed erosion and runoff control measures would not be implemented. Therefore, unlike the proposed project, this alternative would not cause a reduction in soil loss of approximately 29.78 percent (160.01 tons) or a net decrease in peak- flow rates relative to existing conditions. The No Project Alternative would not affect water quality and groundwater supplies.

Because construction and maintenance activities for the vineyard would not occur, the No Project Alternative would avoid potential impacts of the proposed project related to hazards and the use of hazardous materials on the project site and temporary, less-than-significant impacts associated with noise and transportation-related construction activities."

A better case to protect an environment would be hard to make. Additionally, there are a few other impacts the No Project Alternative would avoid:

No cars would be added to the 50 or so that caravan up and down the road each day, increasing the danger of its blind curves and backing up the junction at the Trail. Traffic on the road, which has more than doubled since 2014, would not be increased further.

No more service vehicles, large dump trucks, grape trucks, or other large equipment would add to the danger and the maintenance of an already dangerous road and grade. Nor would the No Project Alternative add to the number of large vehicles that tend to get stuck trying to make it up the grade.

In the No Project Alternative, wildfire danger in this high wildfire severity zone would not be increased by the addition of more people and vehicles, (and possibly power lines if other wells are developed). Nor would it add to the number of people needing to evacuated by helicopter in the event of another fire, like that in 2017, blocking the exit down the road.

At the macro scale, the No Project Alternative would not add to the need for more affordable housing and infrastructure to accommodate a larger work force. Nor would it add to the glut of grapes that the industry seems to be experiencing.

For all the positive benefits to the environment that the No Project Alternative would sustain, the one negative that it posits is the larger amount of siltation that would occur by not doing anything. Perhaps. But the DEIR seems to assume normal rain events and a retention system that must be maintained in perpetuity. In 1997-8 an exceptionally rainy season caused massive amounts of sediment from the newly begun Stagecoach vineyard to wash down canyon walls into Rector reservoir causing filtration failure and substantial repairs. Despite the DEIR's many pages of elaborate calculations, the notion that churning up 42-60 inches of topsoil and rock over 100 acres of land, and the ongoing use of farming equipment on miles of new block perimeters, will result in an ultimate decrease of soil erosion seems very hopeful engineering. Forgive me for being skeptical.

I4-2 Cont.

14-5

Perhaps an alternative could be proposed that would stem the most egregious current erosion, replanting unused roads for example, while retaining the other environmental benefits of the No Project Alternative.

Rector Watershed Development

It is late now to get worked up over another vineyard diminishing the remaining natural landscape in the Rector watershed. The fire that ravished the project site last year even reduces some concern about the potential loss of the natural landscape. And certainly new vineyards are far superior to housing tracts, vineyard estate development or winery tourist attractions. But a look at the amount of acreage developed on the Rector plateau shows that the entire watershed is coming closer to being completely developed. It is already the most heavily developed watershed in the county by far. The Stagecoach North project is the first to push up



to the ridge that surrounds the watershed, and a harbinger for further development along the ridge lines.

In that regard the county should again address the potential cumulative impacts of further development of the watershed. It is a shame that developers are forced to spend over \$300,000 on a report that is predetermined to conclude that what the developer's proposal will have less-than-significant impacts.

The money would be better spent on a study of the impacts as a watershed area is maxed out in vines. The Rector watershed, and the Stagecoach vineyard occupying a very hefty portion of it, would be the perfect subject for a case study in changes in water availability, siltation, animal habitat and traffic generation from its inception in 1995 though the present. It would give everyone a data-based view of the continuing efforts throughout the county to convert raw land to more profitable uses.

Suggested project inclusions

Whichever alternative is finally decided upon, I would like to see two issues considered in the final EIR for the project:

First that a vanpool arrangement be included not just for the proposed project but for Stagecoach as a whole, so that it might set a precedent in reducing GHG's and dangers on the road through a more environmentally-friendly worker transport system.

Second, that an additional northern access road to Stagecoach Vineyards be established connecting it to Hwy. 128, both as a fire security measure and to reduce the traffic load on Soda Canyon Road.

Finally

It should be mentioned, with or without this project, that Gallo will remain by far the largest producer of wine in the world. Its revenues, with the acquisition of Constellation, are now over 60 times greater than its next closest competitor. There is a point at which the growth mentality of capitalism begins to defy the logic of maintaining a livable world, indeed of maintaining our species. Oil companies will always want 100 more acres of tundra, cattle companies 100 more acres of rainforest, and in Napa, warehouse builders 100 more acres of wetlands or gravel companies 100 more acres of wooded knolls.

I4-6

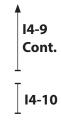
I4-7

I4-8

For all of the "less severe impacts" listed in the No Project Alternative, it is beyond time to recognize that the natural world is not just an infinite resource to be consumed for financial growth. And for those same reasons, it is beyond time that governments begin to accept the No Project Alternatives in front of them, and I ask you to do so here.

Again thank you for the opportunity to comment.

Bill Hocker 3460 Soda Canyon Rd Napa, CA



- **14-1** The commenter's opposition to the project and request to consider the No Project Alternative are noted.
- **14-2** The comment includes text from the No Project Alternative description in Draft EIR Section 5.3.1, *No Project Alternative*, pages 5-3 and 5-4.
- **14-3** The Draft EIR assesses the No Project Alternative's transportation impacts from construction equipment and vehicles in Section 5.3.1, *No Project Alternative*, pages 5-3 and 5-4, and states that the No Project Alternative would avoid the temporary, less-than-significant impacts of the proposed project associated with transportation-related construction activities. The comment adds that the No Project Alternative would also avoid wildfire and housing impacts. The comment is noted.

The analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project construction would generate up to 24 one-way daily vehicle trips, while project operation would generate up to 28 one-way daily vehicle trips. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions.

Further, should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. This would reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, *Alternatives Analysis*. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include implementation of all mitigation measures identified in the Draft EIR for the proposed project and would also reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. See also Response to Comment I3-37.

The proposed project includes minimal transport of heavy equipment to the project site, thereby reducing potential conflicts and impacts of project-related construction traffic. As stated on pages 2-9 and 2-10 of Chapter 2, *Project Description*, of the Draft EIR, all equipment, except one D6 and one D9 bulldozer, is already on the adjacent property owned by the Applicant and would not require transport to the project site for project construction.

I4-4 The commenter's disagreement with the findings of the Universal Soil Loss Equation calculations (Draft EIR Appendix H) of pre-project and post-project conditions to determine the potential of the proposed project to increase soil loss, as described in Draft EIR Section 3.5, *Geology and Soils*, is noted. Napa County requires a soil loss study for an erosion control plan application to demonstrate that the project meets the County's standards of no net increase in erosion and runoff. The Universal Soil Loss Equation is the model approved by the County to measure and quantify pre- and post-project rates of soil loss. The Napa County Engineering Division reviewed the Universal Soil Loss Equation calculations for the proposed project before preparation of the Draft EIR and found them to be technically adequate (Basore, pers. comm., 2019). Furthermore, the commenter does not provide any evidence, calculations, or citations/ references that alter the plausibility of the project's soil loss modeling.

As stated on Draft EIR page 3.5-20, the vegetation clearing, grading, and earthmoving activities proposed by the project would remove obstacles to sediment transport and expose new soils. Soil ripping and other earthmoving could loosen soils onsite, increasing their susceptibility to erosion, especially in areas of overland flow. Conversion and decommissioning of existing roads could also result in sedimentation impacts. The Universal Soil Loss Equation analysis of pre-project versus post-project conditions evaluated these changes to determine the potential of the proposed project to increase soil loss.

Potential soil loss and sedimentation caused by the proposed project would be controlled primarily by using a no-till cover crop with vegetative cover densities ranging from 75 to 85 percent. Vineyard avenues would also include vegetative cover at densities consistent with the Erosion Control Plan. As detailed in Draft EIR Table 3.5-4, implementing the Erosion Control Plan would reduce annual soil loss from the development area by approximately 160.01 tons (29.78 percent) compared to existing conditions. Hydrologic conditions after development of the proposed project are anticipated to be rated as good, based on the positive effects of soil ripping on certain soil types, and assuming that the project achieves and maintains the proposed vegetative cover specifications. See also Response to Comment O1-24.

- **I4-5** Napa County thanks the commenter for the suggested alternative.
- **14-6** The commenter's opinions on the Draft EIR and development in the Rector Reservoir watershed are noted.

Draft EIR Section 4.1, *Cumulative Impacts*, addresses cumulative impacts of the proposed project. As stated on page 4-2, a 3-mile radius (shown in Figure 4-1) was generally selected as the outer geographic limit for assessing the potential extent of cumulatively considerable impacts of the proposed project. However, effects on other resource areas (e.g., cultural and tribal cultural resources, geology and soils, hazards,

and hydrology and water quality) are limited by the local area's topography, drainage, and other physical features. Thus, the geographic scope for these other resource areas was reduced to the Rector Reservoir watershed, or to the immediate vicinity of the project site for resource areas like noise.

As stated in Draft EIR Chapter 1, *Introduction*, the Draft EIR was prepared in conformance with CEQA (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.), and *Napa County's Local Procedures for Implementing the California Environmental Quality Act* (Napa County 2015). Consistent with Section 15121(a) of the State CEQA Guidelines, the Draft EIR is a public information document that objectively assesses and discloses the potential environmental impacts of the proposed project. The findings of the document and any future decisions by the County to approve or not approve the project are not predetermined, as stated in the comment.

- **14-7** The comment is noted. All current Stagecoach employees are encouraged to carpool from a central location and the property owner is currently vetting an option for carpooling from a facility in Napa.
- **14-8** The commenter's request for consideration of an additional northern access road from State Route 128 to Stagecoach Vineyards is noted.
- **14-9** The commenter's opinion about Gallo and request to consider the No Project Alternative are noted and forwarded to the County decision makers for their consideration.
- **I4-10** Napa County thanks the commenter for the Draft EIR comments provided.

March 30, 2021

Donald Barrella, Planner III Napa County Planning, Building, and Environmental Services Department 1195 Third Street Suite 210 Napa, CA 94559

Re: Opposition to Stagecoach North Vineyard Conversion Erosion Control Plan Application #P18-00446-ECPA Draft Environmental Impact Report

Dear Mr. Barrella,

I am a resident of upper Soda Canyon road, about 2 miles from the proposed vineyard conversation project.

Truly, I find it unbelievable that such a project could even be considered right now due to many factors, but the four that I believe should be reviewed are Environmental, Wildfire, Traffic and Drought!

The DEIR fails to assess future precipitation in accordance with currently available science on climate projections for the region the project is located in. Paleoclimate history in the San Francisco Bay region is characterized by long-term precipitation regimes either higher or lower than average tending to last hundreds of years (Malamud-Roam 2007). Since the gold rush, we have been experiencing a wetter-than-average climate regime, but research indicates that we are now entering a drier climate regime. Characterizing the low precipitation totals observed in the past few years as a "drought" is most likely wishful thinking as we slip into a different climate reality (Williams 2020). In addition to overall drier conditions, climate change is expected to cause more extreme storm events in the near and long term. Precipitation will likely arrive in more intense downpours, increasing erosion and flooding (Swain 2018). Water budgets for the proposed project must reflect future conditions (not past conditions), as these are the parameters that it will operate under.

Appendix K reports well logs for four of 20 wells. The amount of water being extracted by just the four wells reported is tremendous - it would be enough to support hundreds of additional single-family residences. However, this is only 20% of potentially available data. All available data should be provided so that impacts can be accurately and fully assessed. Although the DEIR claims that well levels respond readily to infiltration following precipitation, all wells show an overall downward trend in levels. This is concerning, and it is not discussed. It appears as though well number seven didn't bounce back after the drought ended, which is also concerning and should be discussed.

The project site is located above a municipal water supply watershed. Potential impacts on municipal water supply should be assessed, and they should also be considered cumulatively.

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Given the 0.5 acre-foot (AF) per acre water demand provided in the DEIR¹, the ~1,750 acres of vineyard currently planted in the Rector watershed requires ~875 SF of irrigation, annually. A large proportion of this is attributed to about 670 acres of existing Gallo vineyard, creating ~335 AF/year water demand. Placing additional pressure on groundwater resources should be done with extreme caution, especially considering that recharge potential is likely to be lower in the century ahead. This DEIR fails to assess groundwater recharge and demand with appropriate context.

Our local resident water resources are already at risk from the vineyard development and drought. PLEASE do not add more of a burden to our water availability.

Vineyards should not be considered fire breaks. Fires have burned whole vineyards and have burned completely around many others in Napa and Sonoma counties since 2017. Grapevines are subject to drought stress, and are especially at risk of carrying fire across a landscape when they are located at the edge of wildlands. The project parcel is surrounded on three sides by wildland and the proposed habitat corridors will also be corridors for fire. The proposed project has no basis for being considered as a fire prevention measure. To the contrary, it will become yet one more remote asset that oft-understaffed fire crews are expected to defend.

Increasing fire risk at this site increases risk to the wine industry, generally. For vineyards that survived fires, smoke taint in wine grapes was a common issue. Grapegrowers in the Atlas Peak AVA had crops rejected by buyers (Odyssey, Antica, likely others). The 2020 fires led to a 40% overall drop in Napa Valley wine production (California Department of Food and Agriculture). To quote an E & J Gallo spokesperson, speaking to The Drinks Business, "...while a fire can be put out, the damage to wineries can linger long after the smoke has dissipated."

Global climate change, in tandem with a shift to a warmer and drier climate period in California, is predicted to continue to increase fire risk severity and lengthen the fire season throughout Napa County (Westerling 2008). In the century ahead, we can expect the kinds of hot, dry, windy conditions that produce large wildfires to increase in frequency. It is unlikely that humans will be able to better control fires occurring in extreme conditions going forward. The only near-term points of leverage that could meaningfully limit wildfire risk are reducing ignitions and forgoing development in areas likely to burn.

It is important to note that wildfire itself is not the problem. Rather, the problem is that developers and planners continue to ignore wildfire risks, building and developing in locations which have a high probability of burning, and where human presence drastically increases the likelihood of fire ignitions. The project site is exactly such a location, at the interface of wildland and agricultural development, located at the end of a 6-mile dead-end county road and a three-mile dirt road. Emergency service response times are terrifically slow in this location.

l5-5 cont.

15-6

L

The DEIR fails to fully assess downstream impacts of the proposed project, and must do so in order to appropriately assess impacts. Several special status species reliant on high-quality aquatic habitat to persist, including rainbow trout (*Oncorhynchus mykiss*), foothill yellow-legged frog (*Rana boylii*), and California giant salamander (*Dicamptodon ensatus*), are present downstream, and potential impacts on their populations must be assessed in this report.

The project site includes a blueline creek on the western side and is the headwaters for a blueline creek on the eastern side. Both are tributaries to Rector Canyon with confluences 1.5 miles and 2.4 miles from the parcel, respectively. Development and land use practices on this parcel affect conditions in Rector Creek, and must be assessed.

Rector Canyon features numerous large, deep plunge pools and groundwater-fed perennial flow providing habitat for a wide array of native species, particularly those that require undisturbed and high-quality habitat.

Rector Creek in the vicinity of the project site provides excellent salmonid habitat, with rainbow trout always present in reaches near confluences of blueline creeks associated with the proposed project. Rainbow trout require cool (15° - 18°C optimal), clear, fast-flowing permanent water and are sensitive to competition and predation by nonnative invasive species (Moyle 2002). They are negatively impacted by agricultural development.

Rainbow trout are persisting as a wild population in this creek both up and downstream of probable natural fish passage barriers in Rector Canyon, despite having been dam-locked since the 1950s. Historically, Rector Canyon was excellent steelhead habitat. Rainbow trout were stocked in the reservoir in the 1980's but no trout have been stocked there at least since 2001. There is evidence that they persist and reproduce in the reservoir (Manfred Kittel, personal communication). Rainbow trout in Rector Canyon, particularly the ones found upstream of natural barriers, may be a relict population genetically. Studies are pending. If they are a relict population, this would heighten their importance as sources for locally adapted genetics.

Rector Creek provides habitat for foothill yellow-legged frog, a special status species (table 1). The yellow-legged frog requires high water quality (similar requirements as rainbow trout), non-scouring flow conditions and absence of fine sediment while eggs and tadpoles are maturing, and is sensitive to predation and competition from alien invasive species such as bullfrogs (*Lithobates catesbeianus* or *Rana catesbeian*), crayfish, sunfishes, and black bass. Pesticides from the agricultural fields have been identified as a likely threat to this species. Habitat loss, increased susceptibility to disease due to worsening environmental conditions, introduced crayfish, and stream alteration are also threats. As amphibians, foothill yellow-legged frogs have a terrestrial phase and move into adjacent landscapes to forage seasonally. The creek bed of Rector Canyon near confluences of creeks draining the project site provide key reproductive habitat. In addition, foothill yellow-legged frogs may be found anywhere in the Rector watershed during the rainy season, so that direct impacts may occur on the project site.

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The cumulative impacts assessment area should include a traffic analysis covering the entirety of Soda Canyon Road. At present, the area includes only about one mile of the 6.1 mile stretch that this project will impact. Soda Canyon Road is a narrow and poorly maintained dead-end rural road, which is the only access route for the project.

This road is NOT safe! The small sample of photos attached have been taken over the last couple of years. The addition of more large grape hauling trucks + employees will significantly impact the safety of residents. During 'commuter hour', the speeders that cross over into oncoming traffic create major hazards.

In closing, in 2020, the Mountain Peak Winery proposal was remanded to the Napa County Board of Supervisors by the courts for its failure to adequately consider fire risk. Both Stagecoach North and Mountain Peak Winery projects exacerbate fire and safety risks by increasing trips on Soda Canyon Road, increasing the number of people present in this remote location, and adding opportunities for fire ignition.

Due to the severity of fire risk, the immense consequences of contemporary fires, and climactic conditions that are expected to increase catastrophic fires in the foreseeable future, even a small increase in risk is unacceptable. This project should be denied. And it most certainly must address wildfire risks in its Environmental Impact Report.

Other DEIR Oversights

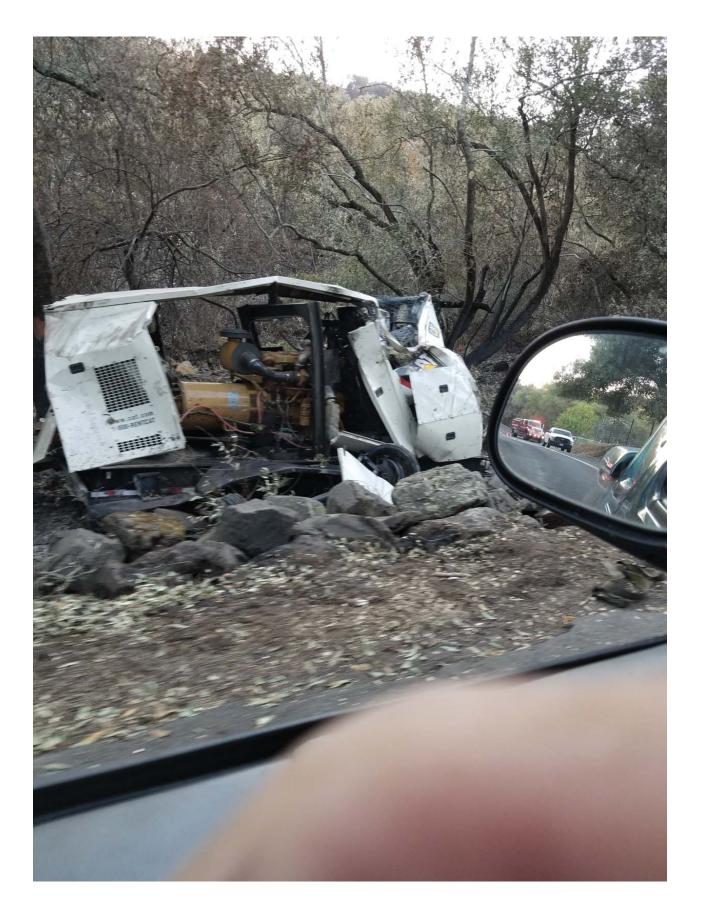
Proposed blasting of over one acre acres of rock outcrops and relocating debris may qualify this project for compliance with Surface Mining and Reclamation Act of 1975. Under this act, projects which disturb more than one acre, or remove more than 1,000 cubic yards of material, including quarrying, are subject to reclamation rules. Converting native land cover to vineyard in the Sonoma Volcanics geologic formation typically produces an enormous amount of rock, on-par with mining impacts. This potentially relevant regulation should be considered in this report.

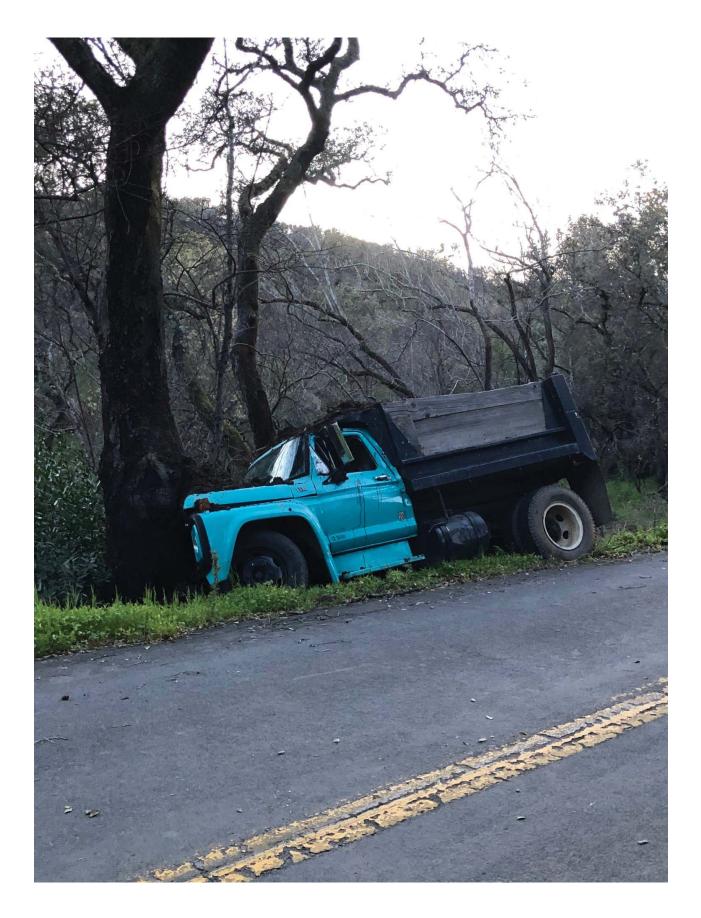
In conclusion, this DEIR is insufficient in numerous sections, and does not correctly or adequately assess potential impacts of the proposed project. Thank you for considering my comments on the Gallo Stagecoach North Draft Environmental Impact Report. I look forward to your reply.

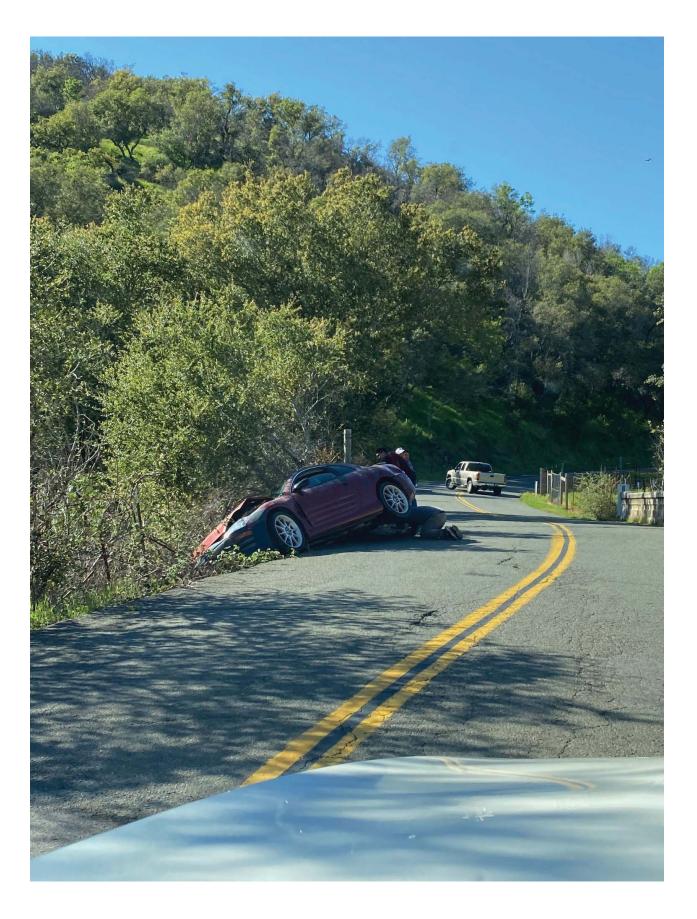
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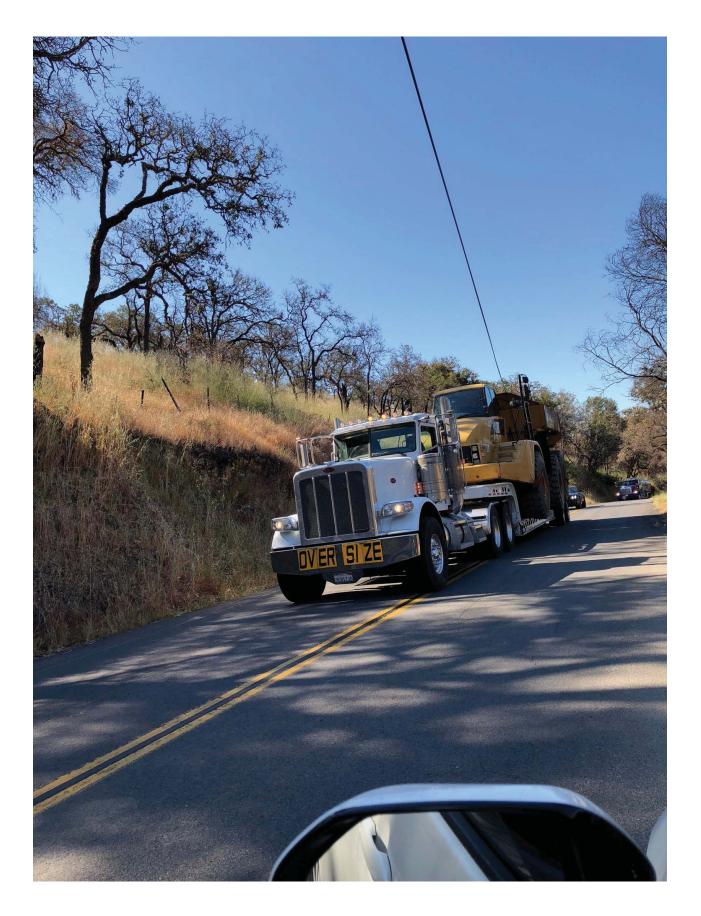
15-18

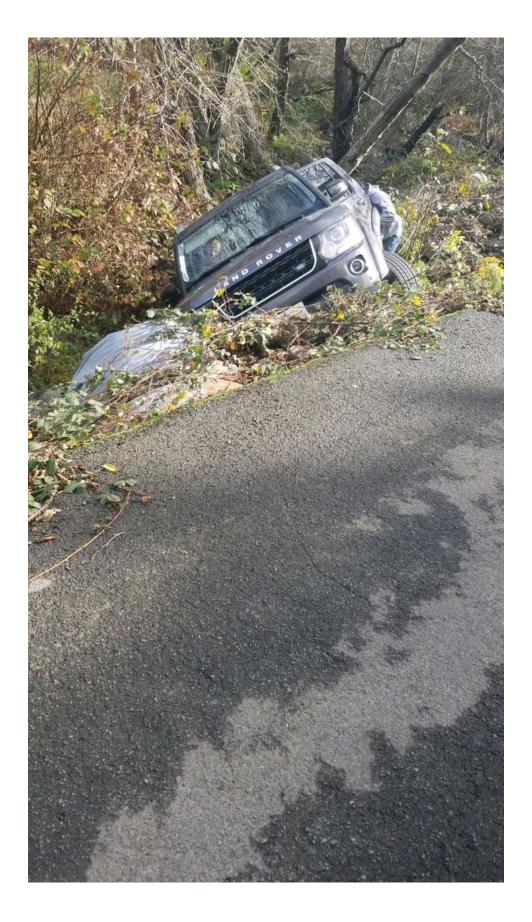
Shelley Wolfe 3240 Soda Canyon Road 707-738-8068 ~~~

















Letter I5	Shelley Wolfe
Response	March 30, 2021

- **I5-1** Napa County thanks the commenter for the Draft EIR comments provided. The commenter's topics of Environmental, Wildfire, Traffic and Drought are responded to in Responses to Comments I5-2 through I5-17.
- 15-2 The water availability analysis for the proposed project prepared by Richard C. Slade and Associates, included as Draft EIR Appendix J, relied on the long-term annual average groundwater recharge volume and therefore may already include some effects of climate change projected to occur in Northern California. In the Guidance for Climate Change Data Use During Groundwater Sustainability Plan Development published by the California Department of Water Resources (DWR 2018), "the northern and central regions of California are expected to experience an increase in precipitation" for both the 2030 and 2070 projected climate conditions. Average annual precipitation in the San Francisco Hydrologic Region is projected to increase by 4.6 percent and 10.2 percent in 2030 and 2070, respectively (Figures A-13 and A-14 in DWR 2018). The analyses presented in the referenced Swain et al. (2018) article found "statistically robust increases in the simulated frequency of extremely heavy precipitation events" and the results of the work "suggest that future multi-year droughts in California may exhibit an increased propensity to be interrupted by very wet interludes" (Swain et al. 2018) (Final EIR Appendix B; RCS 2021).

The drought analysis in Draft EIR Appendix J (RCS 2020) is quite conservative (Final EIR Appendix B; RCS 2022). As described in that text, the theoretical drought envisioned for the analysis would last six years, during which only approximately 50 percent of average rainfall would occur. The theoretical drought duration and rainfall total were chosen to represent a conservative drought based on details from historic rainfall records and prior drought periods. The theoretical rainfall volume of 50 percent of average is similar to the rainfall total during the two-year drought (Water Year [WY] 1975–76 to WY 1976–77), and a six-year drought duration is similar to WY 1986–87 to WY 1991–92, when total rainfall was 75 percent of average; see Table 5 of Draft EIR Appendix J (RCS 2018). Hence, the theoretical drought conditions (magnitude and duration) are more conservative than the conditions recorded in the actual rainfall record.

The recharge calculations in Draft EIR Appendix J are based on average rainfall for the Stagecoach North property (RCS 2018). This means that years of above-average rainfall and below-average rainfall (drought periods) that have occurred during the period of record are inherently included in the calculations presented in Appendix J. Over the long term, the recharge calculated for the property is higher than the demand. Hence, more recharge is projected to occur than is required to be extracted for the proposed project in the future. To help address uncertainty regarding future rainfall total and projections,

conservative estimates of rainfall recharge percentages were employed in Appendix J. See also Response to Comments I3-27 and O1-44.

- **15-3** Monitoring data for the two wells proposed for use with operation of the proposed project exist within the footprint of the project parcel and are included in Draft EIR Appendix K. The proposed water supply from the Stagecoach North wells is not part of the Stagecoach South approved operating plan. To date, the wells in place on the Stagecoach North site have been operated occasionally to sustain function, monitor water quality, and maintain equipment. Only in that instance has water been applied to the Stagecoach South property, to prevent waste of the resource. Stagecoach South operates on wells within the boundaries of its approved operating plan and does not need supplemental water from any other sources. See also Response to Comments I3-28 and O1-45.
- **15-4** Draft EIR Appendix K, Figures 2B through 4B, show the water level data for the Stagecoach South mitigation monitoring wells plotted along with a "cumulative departure from mean rainfall" curve. These cumulative departure curves are shown to help define rainfall trends over the periods of rainfall record at the rain gages listed. In general, when the slope of a cumulative departure from the mean rainfall curve is negative (i.e., the curve slopes downward to the right over time), total rainfall in each water year during that period was at or below the long-term mean water year rainfall. Alternatively, when the slope of the departure curve is positive (i.e., sloped upward to the right over time), total rainfall in each water year during that period tended to be at or above the long-term mean water year rainfall.

In general, the water level changes over the period of water level record (roughly 2008 through 2019) depicted on Figures 2B through 4B follow the changes in the two cumulative departure curves, including the water levels in Well 7 (shown on Figure 4B). This suggests that changes in water levels in the wells are responding to changes in annual rainfall at the Stagecoach property.

On page 3 of Draft EIR Appendix K, it is noted that "after further review, Stagecoach Vineyards reports that the January 2015 to June 2016 dataset was erroneous due to possible transducer malfunction" (RCS 2020). This malfunction resulted in erroneous reporting of water level measurements in late 2016, and the likely erroneous water levels are obscuring the trend of the graph. Ignoring the likely erroneous data, water levels in Well 7 do show some recovery as a result of the post-drought rain. The amount of recovery observed is commensurate with the trend in the cumulative rainfall departure curve, and similar to the water level trends in the other mitigation monitoring wells. See also Response to Comment I3-29 and Final EIR Appendix B (RCS 2021).

15-5 The Draft EIR assesses groundwater recharge and demand within the appropriate context. The Stagecoach North property is not located within a "groundwater basin" as defined by the State of California. Groundwater beneath the Stagecoach North property

is stored in a fractured rock aquifer system (i.e., rocks of the Sonoma Volcanics). Therefore, the proposed project would not result in decreases in the availability of groundwater to the municipal water supply. See also Response to Comment I3-30 and Final EIR Appendix B (RCS 2021).

- I5-6 See Global Comment Response 1. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, based on information provided by the Applicant (see Final EIR Chapter 2, *Revisions to the Draft EIR*). This information describes practices currently implemented on the adjacent Stagecoach property that would be implemented for the proposed project. See also Response to Comments I1-2 through I1-7, I1-9, I3-3, I3-54 through I3-63, I5-7 through I5-9, I5-15, I5-16, and O6-2 through O6-6.
- I5-7 Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, as described in Global Comment Response 1 and Response to Comment I5-6. Information provided in the comment about risk to the wine industry is noted. See also Response to Comment I3-59.
- I5-8 Information provided in the comment about climate change and fire risk is noted. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, as described in Global Comment Response 1 and Response to Comment I5-6. See also Response to Comment I3-60.
- I5-9 The comment is noted. Additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*, as described in Global Comment Response 1 and Response to Comment I5-6. See also Response to Comment I3-61.
- **I5-10** Potential impacts on biological resources are addressed in Draft EIR Section 3.3, *Biological Resources*. No habitat for rainbow trout, foothill yellow-legged frog, or California giant salamander occurs on the project site.

The blue lines shown on Draft EIR Figure 3.3-5 are ephemeral drainages mapped by LSA during surveys associated with the preparation of the biological report for the proposed project (Draft EIR Appendix D). One dotted-blue-line stream occurs within the project site on the U.S. Geological Survey (USGS) map; as stated on page 3.3-18 of the Draft EIR, it runs north-south between proposed vineyard Blocks Y14, X12, X10, and Z20. Dotted blue lines on the USGS map indicate ephemeral drainages. No solid-blue-line streams are mapped within the project site by USGS (https://livingatlas.arcgis.com/topoexplorer/index.html) or the U.S. Fish and Wildlife Service (USFWS) online wetlands mapper (https://www.fws.gov/wetlands/data/mapper.html). As discussed in Draft EIR

Chapter 2, *Project Description*, the proposed project design incorporates setbacks from all drainages on the project site, with the exception of crossings required for access (discussed under Impact 3.3-3). The two ephemeral streams on the project site that meet the County's definition of a stream (Draft EIR pages 3.3-17 and 3.3-18) have notouch setbacks ranging from 55 to 105 feet based on slope, in accordance with Section 18.108.025 of the Napa County Code. In addition, the proposed project would avoid other waters that are not defined by the County as streams and would maintain 50-foot buffers from these areas, consisting of 26 feet of undisturbed native vegetation and 24 feet of vegetated vineyard avenue.

These features would be affected during construction. However, as stated in Mitigation Measure 3.3-3, all necessary permits would be obtained before the construction of stream crossings and replacement of culverts, and the owner/permittee would comply with all permit minimization and mitigation measures. Impacts on waters of the United States would require a minimum mitigation ratio of 1:1 (mitigated:affected) to comply with the U.S. Army Corps of Engineers' no-net-loss policy; however, the San Francisco Bay Regional Water Quality Control Board may require a ratio of 2:1 (mitigated:affected) or more. During construction of rocked water crossings and culvert replacement, all necessary best management practices would be implemented to ensure that no soil or other materials would be discharged into the onsite stream courses. Before constructing and installing stream crossings and replacing culverts associated with #P18-00446-ECPA, and before developing vineyard blocks reliant on those crossings, the owner/ permittee would be required to obtain—and to demonstrate to Napa County that it has obtained—all required authorizations and/or permits from agencies with jurisdiction over waters of the United States or the state.

No impacts on downstream tributaries are anticipated to result from the minor impacts on the ephemeral drainages onsite. Ephemeral drainage features would be affected during construction, as described above and in Draft EIR Section 3.3; however, all permits would be obtained before construction to ensure no net loss of waterways, and best management practices would be installed to ensure that no soil or other materials would be discharged into the onsite stream courses. With the setbacks proposed, no impacts on downstream tributaries during vineyard operation are anticipated. Therefore, no assessment of potential impacts on downstream habitat for rainbow trout, foothill yellow-legged frog, or California giant salamander is relevant. See also Response to Comment I3-16.

I5-11 As stated in Responses to Comments I5-10 and I3-16, no solid-blue-line streams are mapped within the project site by USGS (https://livingatlas.arcgis.com/topoexplorer/ index.html) or the USFWS online wetlands mapper (https://www.fws.gov/wetlands/data/ mapper.html). Although some of the ephemeral drainages onsite are tributary to the two offsite solid-blue-line drainages east and west of the project site boundaries, which are

tributary to Rector Canyon, no downstream impacts associated with development or land use practices are anticipated.

Further, Impact 3.5-1 in Draft EIR Section 3.5, *Geology and Soils*, states that implementing the Erosion Control Plan for the proposed project would reduce annual soil loss from the development area by approximately 160.01 tons (29.78 percent) compared to existing conditions. Impact 3.7-3 in Draft EIR Section 3.7, *Hydrology and Water Quality*, states that there are no predicted net increases in peak runoff and no negative hydrologic impacts are expected to result from the proposed project. See also Response to Comment I3-17.

- **15-12** The project site does not contain habitat for rainbow trout. As discussed in detail in Responses to Comments I5-10 and I5-11 and Draft EIR, no impacts on downstream tributaries would result from the proposed project. Therefore, downstream impacts on habitat for potentially occurring special-status species and rainbow trout, which are currently not listed as a special-status by the USFWS or CDFW, would occur. See also Response to Comment I3-18.
- **15-13** The project site does not contain habitat for foothill yellow-legged frog. As discussed in detail in Responses to Comments I5-10 and I5-11 and Draft EIR, no impacts on downstream tributaries would result from the proposed project. Foothill yellow-legged frogs are found in permanent water sources year round. The project site contains small ephemeral drainages that transport water after storm events. The ephemeral drainages lack riparian corridors along the banks. Therefore, the ephemeral drainages onsite do not contain suitable habitat for foothill yellow-legged frog. See also Response to Comment I3-19.
- **15-14** The commenter falsely asserts that the cumulative impact analysis only considers part of the segment of Soda Canyon Road that would be affected by the proposed project. The evaluation of traffic operating conditions includes an assessment of the project's contribution to existing traffic volumes at two locations on Soda Canyon Road that, when combined, cover a distance of 6.1 miles: (1) east of the intersection with Silverado Trail; and (2) west of the private road leading to the project site.

The County acknowledges the commenter's concerns related to the existing functionality and safety of Soda Canyon Road. However, the existing design and safety of Soda Canyon Road are not the subject of this Draft EIR. The proposed project would not modify Soda Canyon Road, nor does it include any other design feature that would result in hazardous conditions. The analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project construction would generate up to 24 one-way daily vehicle trips and project operation would generate up to 28 one-way daily vehicle trips. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that the cumulative impact would be less than significant.

Further, should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. This would reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. The mitigation measures are summarized in Draft EIR Table ES-2, and Table 3.3-5A shows the mitigated proposed project acreage with implementation of the biological resources mitigation measures identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage). Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, Alternatives Analysis. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include implementation of all mitigation measures identified in the Draft EIR for the proposed project and would also reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. See also Response to Comment I3-52, and see Final EIR Chapters 2 and 4 and Final EIR Appendix D for the updated mitigation measures and conditions of approval.

I5-15 The transportation analysis on pages 3.10-5 and 3.10-6 of the Draft EIR states that project operation would generate up to 28 one-way daily vehicle trips. The harvest is the most labor intensive period for vineyards, generating the most traffic, which is why it is the focus of the analysis of project operation transportation impacts in the Draft EIR. Compared to existing daily traffic volumes on Soda Canyon Road, this represents an increase of less than 1 percent at both count locations on Soda Canyon Road. This nominal increase in traffic volumes with implementation of the proposed project would result in roadway operating conditions substantially similar to existing conditions, which is why the Draft EIR concludes that the impact would be less than significant.

Further, should the County certify the EIR and make a determination to approve the proposed project as mitigated, all mitigation measures and conditions of approval described in the Draft EIR would apply to the proposed project. This would reduce the number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated. The mitigation measures are summarized in Draft EIR Table ES-2, and Table 3.3-5A shows the mitigated proposed project acreage with implementation of the biological resources mitigation measures identified in the Draft EIR (the only mitigation measures that would reduce the vineyard acreage). Alternatively, the County may make a determination to approve one of the alternatives described in Draft EIR Chapter 5, *Alternatives Analysis*. Both the Increased Preservation Alternative and the Increased Watercourse Setbacks Alternative include implementation of all mitigation measures identified in the Draft EIR for the proposed project and would also reduce the

number of workers needed and associated vehicle trips, given the reduced acreage that would be developed and operated.

Also, based on the Applicant's past vineyard operations experience adjacent to the project site, the time of day that harvest activities typically occur would correspond to inbound vehicle trips occurring before 6 a.m. and outbound vehicle trips between 2 and 3 p.m. The peak period of traffic, according to the 2019 traffic counts conducted for the proposed project, occurred between 6 and 7:15 a.m. in the eastbound direction (inbound) and between 2:45 and 4:30 p.m. in the westbound direction (outbound) on Fridays during the harvest period. On Saturdays, the peak hours of traffic were between 5:30 and 6:45 a.m. in the eastbound direction (inbound). Therefore, although some overlap with peak traffic conditions on Soda Canyon Road could occur, the majority of vehicle trips would occur during off-peak hours. See also Responses to Comments I3-36, I3-37, I5-15 and 06-3.

As stated in Global Comment Response 1 and Response to Comment I5-6, additional information regarding wildfire risk procedures and management has been incorporated into the Draft EIR Project Description under Section 2.6, *Vineyard Operations and Maintenance*. See also Response to Comment I3-62.

- **I5-16** The commenter's opinion that the project should be denied is noted and forwarded to the County decision makers for their consideration. See Responses to Comments I5-6 through I5-9, I5-15 and I3-63.
- **I5-17** As shown in Draft EIR Table 3.3-4 on page 3.3-39, approximately 1.06 acres of rock outcrop would be disturbed as part of the proposed project. If the County were to approve the Increased Preservation Area Alternative, approximately 0.98 acre of rock outcrop would be disturbed (see Table 5-1B on Draft EIR page 5-7). The exact amount of rock that would be generated is unknown until development occurs.

SMRA's requirements apply to anyone, including government agencies, engaged in surface mining operations in California (including those on federally managed lands) that disturb more than one acre or remove more than 1,000 cubic yards of material. This includes but is not limited to prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials. The proposed project does not include surface mining operations; therefore, the requirements do not apply. Furthermore, activities associated with farming are exempt from SMARA (Public Resources Code Section 2714[a] and California Code of Regulations Section 3505[a][3]). If the Applicant were intending on selling the rock generated from agricultural development then SMARA may apply. See also Response to Comment I3-64.

I5-18 As discussed in Responses to Comments I5-2 through I5-17, the Draft EIR is complete and sufficiently assesses the potential impacts of the proposed project. Napa County thanks the commenter for the Draft EIR comments provided.

CHAPTER 4 MITIGATION MONITORING AND REPORTING PROGRAM

4.1 INTRODUCTION

Public Resources Code Section 21081.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines) require public agencies to establish monitoring or reporting programs for projects they approve whenever approval involves adopting either a mitigated negative declaration or specified environmental findings related to environmental impact reports (EIRs).

This Mitigation Monitoring and Reporting Program (MMRP) has been developed to help ensure that Napa County carries out the adopted measures to mitigate and/or avoid significant environmental impacts associated with the implementation of the Stagecoach North Vineyard Conversion Erosion Control Plan Application Project (#P18-00446-ECPA) (proposed project).

This MMRP is intended to be used by Napa County to ensure compliance with mitigation measures during project implementation. The mitigation measures identified in this MMRP were developed as part of the EIR process for the proposed project. Conditions of approval that were included in the Draft EIR are listed in Final EIR Appendix B.

4.2 MMRP COMPONENTS

The components of **Table 4-1**, which contains applicable mitigation measures, are addressed briefly below.

Impact: This column summarizes the impact stated in the Draft EIR.

Mitigation Measure: All mitigation measures identified in the Stagecoach North Vineyard Conversion Erosion Control Plan Application Project (#P18-00446-ECPA) Draft EIR are presented, as revised in the Final EIR, and numbered accordingly. Note that some of the text for the mitigation measures in Table 4-1 has been edited (relative to the Draft EIR) for clarity/completeness and non-substantive revisions are not reflected in Final EIR Chapter 2.

Responsibility for Implementing: This item identifies the entity that will undertake the required mitigation.

Responsibility for Monitoring: Napa County is primarily responsible for ensuring that mitigation measures are successfully implemented. Napa County may contract out for these

services and/or make them part of the construction specifications, and other agencies may also be responsible for monitoring the implementation of mitigation measures. As a result, more than one monitoring party may be identified.

Monitoring and Reporting Actions: For every mitigation measure, one or more actions are described. The actions delineate the means by which the mitigation measures will be implemented, and, in some instances, the criteria for determining whether a measure has been successfully implemented. Where mitigation measures are particularly detailed, the action may refer back to the measure.

Timing: Implementation of the action must occur before or during some part of project approval, project design, or construction, or on an ongoing basis. The timing for each measure is identified.

 Table 4-1

 Stagecoach North Vineyard Conversion #P18-00446-ECPA Mitigation Monitoring and Reporting Program

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Monitoring and Reporting Actions	Timing
3.2 Air Quality and Greenhouse Gas Emissions	Greenhouse Gas operation of the proposed project	Mitigation Measure 3.2-1a (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Implement Mitigation Measures 3.3-1a through 3.3-1j, 3.3-2a, 3.3-2b, 3.3-4, and 3.3-5 detailed in Section 3.3, <i>Biological Resources</i> .	See below.	See below.	See below.	See below.
		Mitigation Measure 3.2-1b (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Construction contractors shall be required to implement the following measures consistent with the BAAQMD-recommended basic control measures during construction:	Construction contractor	Napa County, construction contractor	Implement measures consistent with the BAAQMD-recommended basic control measures.	During construction
		(1) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.				
		(2) All haul trucks transporting soil, sand, or other loose material offsite shall be covered.				
		(3) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.				
		(4) All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.				
		(5) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.				
		(6) Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure, 13 CCR Section 2485). Clear signage shall be provided for construction workers at all access points.				
		(7) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition before operation.				
		(8) A publicly visible sign shall be posted with the telephone number and person to contact at Napa County regarding dust complaints. This person shall respond and take corrective action within 48 hours. To ensure compliance with applicable regulations, BAAQMD's phone number shall also be visible.				
		Mitigation Measure 3.2-1c (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Blasting operations shall be conducted as specified below:	Construction contractor, owner/permittee	Napa County, owner/permittee	Follow guidelines for blasting, including notifying Napa County and others that requested such notices at least 48 hours in	During construction
		(1) Year-round, Monday through Friday only from 10 a.m. to 3 p.m. Blasting shall not occur outside of these hours, or on the weekends, or on any major holidays.			advance of blasting events.	
		(2) Blasting shall be prohibited during high wind conditions. High wind conditions are deemed to occur when the 2-minute average wind speed exceeds 20 miles per hour.				
		(3) The owner/permittee shall measure and record wind speeds continually throughout the day during blast events to ensure compliance. Wind speed measurements, including average wind speeds shall be included in blasting logs.				
		(4) The owner/permittee shall notify via email Napa County, and any agencies, businesses, and local residents requiring or requesting such notice via email, at least 48 hours in advance of any blasting events.				
		(5) The owner/permittee shall record each blast event and maintain blasting logs for the duration of vineyard development activities. Blasting logs/ records shall be submitted to Napa County upon request.				

 Table 4-1

 Stagecoach North Vineyard Conversion #P18-00446-ECPA Mitigation Monitoring and Reporting Program

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Monitoring and Reporting Actions	Timing
3.2 Air Quality and Greenhouse Gas Emissions (cont.)	3.2-2: Construction and operation of the proposed project could result in a cumulatively considerable net increase of a criteria air pollutant for which the Bay Area is nonattainment under an applicable federal or state air quality standard.	Implement Mitigation Measures 3.2-1a and 3.2-1b (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative)	See above.	See above.	See above.	See above.
3.3 Biological Resources	3.3-1: Construction and operation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	 Mitigation Measure 3.3-1a (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): In order to mitigate impacts to special-status plants resulting from development of the proposed project, the Applicant shall place in permanent protection a Preservation Area (Figure 3.3-6 of the Draft EIR) of no less than 79.3 acres of equal or greater habitat value than the locations of the special-status plants impacted by the proposed project, as determined by a qualified professional knowledgeable and experienced in the local botany and habitats with the potential to occur at the project site. All acreage designated for preservation shall be identified as such in a mitigation easement, with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection acceptable to Napa County. The mitigation easement shall be prepared in a form acceptable to County Counsel and entered into and recorded with the Napa County Recorder's office prior to any earth disturbing activities, grading or vegetation removal, or within 12 months of project approval, whichever occurs first. In no case shall earthmoving activities be initiated until said mitigation easement is recorded. Any request by the Applicant for an extension of time to record the mitigation easement shall be considered by the Planning, Building and Environmental Services Department (PBES) Director and shall be submitted to Napa County prior to the 12 month deadline, and shall provide sufficient justification for the extension. The land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should be otherwise restricted by the existing goals and policies of Napa County with the exception	Qualified botanist, owner/permittee	Napa County, CDFW	Designate a 79.68-acre Preservation Area that is restricted from development and other uses that would degrade the quality of the habitat. Revise Erosion Control Plan #P18-00446- ECPA before approval to increase the Preservation Area to 79.68 acres. Record the mitigation easement within 60 days of approval of ECPA #P18-00446-ECPA by the County. Prepare and implement a Long-Term Management Plan and Mitigation and Monitoring Plans.	Before commencement of earthmoving activities

 Table 4-1

 Stagecoach North Vineyard Conversion #P18-00446-ECPA Mitigation Monitoring and Reporting Program

Issue Area	Impact	STAGECOACH NORTH VINEYARD CONVERSION #P18			Monitoring and Peporting Actions	Timing
Issue Area 3.3 Biological Resources (cont.)	3.3-1 (cont.)	Mitigation Measure Mitigation Measure 3.3-1b (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): The owner/permittee shall replace the 1,595 holly-leaved ceanothus affected by the project at a 1.2:1 ratio (mitigated:affected). Therefore, this would result in the replacement of 1,914 holly-leaved ceanothus. This shall be accomplished by one of four options, or a combination thereof, to produce the 1,914 transplants to satisfy the required mitigation for this species: (1) assisted seedling recruitment in replanting areas; (2) propagating cuttings from shrubs from the adjacent Stagecoach property; (3) propagating cuttings from shrubs from the adjacent Stagecoach property; (3) propagating cuttings from shrubs from the development areas into pots for later transplantation. The techniques for each of these options shall be discussed in detail in the Holly-leaved Ceanothus would require a minimum planting/ cutting/transplanting of 1,914 plants to achieve the 1.2:1 ratio. To establish 1,914 plants, about 46 individuals per acre shall be planted in a 42-acre portion of the Preservation Area containing chamise alliance, mixed manzanita, and scrub interior live oak (Figure 3.3-6). If it is not feasible to plant 1,914 holly-leaved ceanothus in the Preservation Area, suitable areas on adjacent lands may be utilized, at the discretion of Napa County. Before the start of vegetation clearing and earth-disturbing activities on the project site, a qualified botanist shall prepare a detailed Holly-leaved Ceanothus Mitigation and Monitoring Plan for review and written approval by the County. The Holly-leaved Ceanothus Mitigation and Monitoring Plan shall include details on the four replacement options identified above. In addition, the plan shall include, but not be limited to: (1) an onsite habitat enhancement and planting plan, and offsite plantings, at the discretion of the County, if there is not enough suitable habitat within the proposed Pre	Responsibility for Implementing Owner/permittee, qualified botanist	Responsibility for Monitoring Napa County, qualified botanist	Monitoring and Reporting Actions Replace the affected holly-leaved ceanothus. Prepare and implement a Mitigation and Monitoring Plan. Monitor replanting area for a minimum of 5 years to achieve a minimum 80 percent survival rate.	Timing Before commencement of earthmoving activities and after construction
		Mitigation Measure 3.3-1c (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the population of six Franciscan onion individuals from vineyard Block Y14 and maintain a 20-foot buffer from the avoided population, consistent with the modified block configurations detailed in Figure 3.3-6. These avoided populations shall be demarcated with construction flagging/fencing before commencement of earthmoving activities. The precise locations of these fences shall be inspected and approved by Napa County before the start of any earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance area/boundary.	Owner/permittee, qualified botanist	Napa County	Revise ECPA #P18-00446-ECPA before approval to avoid the population of six Franciscan onion individuals from vineyard Block Y14 and maintain a 20-foot buffer from the avoided population. Mark avoided populations with flagging/fencing and get field locations inspected and approved by Napa County.	Before commencement of earthmoving activities

TABLE 4-1
STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM

	STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM						
Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Monitoring and Reporting Actions	Timing	
3.3 Biological Resources (cont.)	3.3-1 (cont.)	 Mitigation Measure 3.3-1d (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): To avoid impacts on the narrow-flowered California brodiaea located outside the project area, the clearing limits shall be clearly and accurately flagged by an engineer using GPS equipment. The narrow-flowered California brodiaea to be retained adjacent to the clearing limits and roadways shall be demarcated with construction flagging/fencing. The precise locations of these fences shall be inspected and approved by Napa County before the start of any earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance area/ boundary. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any narrow-flowered California brodiaea plants inadvertently removed that are not located within the approved boundaries or clearing limits of #P18-00446-ECPA shall be replaced on-site at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, location of suitable habitat on the project parcel, the locations of replacement plantings, and success criteria of at least 80 percent, including monitoring schedule and activities. Any replaced plants shall be implemented before vineyard planting activities. Any replaced plants shall be monitored for at least 5 years to ensure an 80 percent survival rate. 	Owner/permittee, qualified botanist	Napa County, qualified botanist	Flag/fence clearing limits to avoid impacts on the narrow-flowered California brodiaea to be retained and get field locations inspected and approved by Napa County. Prepare and implement a replacement plan for any narrow-flowered California brodiaea plants inadvertently removed that are not located within the approved boundaries or clearing limits of #P18-00446-ECPA. Monitor replanting area for a minimum of 5 years to achieve a minimum 80 percent survival rate.	Before commencement of earthmoving activities and after construction	
		Mitigation Measure 3.3-1e (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the population of small-flowered 4-6alycadenia within proposed vineyard Block V4 and maintain a 20-foot buffer from the avoided population, consistent with the modified block configurations detailed in Figure 3.3-6. These avoided populations shall be demarcated with construction flagging/ fencing before commencement of earthmoving activities. The precise locations of these fences shall be inspected and approved by Napa County before the start of any earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance area/boundary.	Owner/permittee, qualified botanist	Napa County	Revise ECPA #P18-00446-ECPA before approval to avoid the population of small- flowered calycadenia within proposed vineyard Block V4 and maintain a 20-foot buffer from the avoided population. Mark avoided populations with flagging/fencing and get field locations inspected and approved by Napa County.	Before commencement of earthmoving activities	
		 Mitigation Measure 3.3-1f (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Replacement of two-carpellate western flax plants/populations removed shall be at a minimum 1.2:1 ratio (mitigate:affected) for the approximately 2,472 plants being removed. To mitigate impacts on two-carpellate western flax plants, the top 3 inches of soil shall be removed with hand shovels within all areas where flax individuals would be removed by the proposed development. The soil shall be transported to areas where suitable habitat occurs in the Preservation Area (Figure 3.3-6) and scattered across open areas. The locations where the soil comprising two-carpellate western flax seeds is relocated shall be mapped and their boundaries delineated with flagging. Before the start of vegetation clearing and earth-disturbing activities on the project site, a qualified botanist shall prepare a detailed Two-carpellate Western Flax Mitigation and Monitoring Plan for review and written approval by Napa County. The Two-carpellate Western Flax Mitigation and Monitoring Plan shall document collaboration with CDFW on plan preparation. The plan shall include details on flax soil collection area, and preparation of soil relocation areas. In addition, the plan shall include, but not be limited to: (1) an onsite habitat enhancement and planting plan, and offsite plantings, at the discretion of the County, if there is not enough suitable habitat within the proposed Preservation Area on the property to support a 1.2:1 ratio of individual plants planted to individual plants removed for perennial plants; 	Owner/permittee, qualified botanist	Napa County, qualified botanist	Remove the top 3 inches of soil within all areas where flax individuals would be removed by the proposed development, transport the soil to areas where suitable habitat occurs in the Preservation Area, and scatter across open areas. Map and flag the locations where the soil comprising two-carpellate western flax seeds is relocated. Prepare and implement a Mitigation and Monitoring Plan. Monitor the replanting area for a minimum of 5 years to achieve a minimum 80 percent survival rate.	Before commencement of earthmoving activities and after construction	

TABLE 4-1
STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM

	luciost	STAGECOACH NORTH VINEYARD CONVERSION #P18			Monitoring and Danastics Action	Timin
Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Monitoring and Reporting Actions	Timing
3.3 Biological Resources (cont.)	3.3-1 (cont.)	 (2) the success criteria with a minimum 80 percent survival rate; (3) a minimum of 5 years of monitoring activities for the populations; and (4) control of invasive species and any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a mitigation easement with the same requirements as outlined in Mitigation Measure 3.3-1a. After relocation of the soil containing flax seed, the soil relocation areas shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary. If the success criteria have not been met at the county shall be designated to fund the mitigation and monitoring effort, which shall be included in the endowment identified in Mitigation Measure 3.3-1a. 				
		Mitigation Measure 3.3-1g (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the populations of Napa Iomatium Iocated on the eastern edge of proposed vineyard Block Z19 and within proposed vineyard Blocks V1 and Y16 and to maintain a 20-foot buffer from the avoided populations, consistent with the modified block configurations detailed in Figure 3.3-6. These avoided populations shall be demarcated in the field with construction flagging/fencing before commencement of earthmoving activities. The precise locations of these fences shall be inspected and approved by Napa County before the commencement of earthmoving activities. Any incursions into the avoidance boundary shall be conducted only by qualified personnel and only at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance boundary.	Owner/permittee, qualified botanist	Napa County	Revise ECPA #P18-00446-ECPA before approval to avoid the populations of Napa lomatium located on the eastern edge of proposed vineyard Block Z19 and within proposed vineyard Blocks V1 and Y16 and to maintain a 20-foot buffer from the avoided populations. Mark avoided populations with flagging/fencing and get field locations inspected and approved by Napa County.	Before commencement of earthmoving activities
		 Mitigation Measure 3.3-1h (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the green monardella populations adjacent to vineyard Blocks Z19, Z20, and V6 and maintain a 20-foot buffer from the avoided populations/areas, consistent with the modified block configurations detailed in Figure 3.3-6. These avoided populations shall be demarcated with construction flagging/fencing. The precise locations of these fences shall be inspected and approved by Napa County before commencement of earthmoving activities. Any incursions into the avoidance boundary shall be conducted only by qualified personnel and only at the discretion of the County. No equipment or materials shall be laid down in or near the boundary. Replacement of green monardella plants/populations removed shall be at a minimum 1.2:1 ratio (mitigated:affected) for the approximately 1,162 plants being removed. This plant can be propagated from seeds, cuttings, and by dividing existing clumps. The cuttings or seeds shall be collected from a minimum of 100 individual plants present onsite to ensure diversity. The seeds or cuttings shall be collected and propagated by a nursery with experience propagating chaparral plants. Propagated replacement seeds and/or cuttings shall be planted in suitable habitat in the Preservation Area (Figure 3.3-6), subject to the Green Monardella Mitigation and Monitoring Plan outlined below. Before the start of vegetation clearing and earth-disturbing activities on the project site, a qualified botanist shall prepare a detailed Green Monardella Mitigation and Monitoring Plan for review and written approval by the County. The Green Monardella Mitigation and Monitoring Plan shall document collaboration with CDFW on plan preparation. The plan shall include details on collection and propagation of seeds, cuttings, or clump divisions, seed spreading and planting of	Owner/permittee, qualified botanist	Napa County	Revise ECPA #P18-00446-ECPA before approval to avoid the green monardella populations adjacent to vineyard Blocks Z19, Z20, and V6 and maintain a 20-foot buffer from the avoided populations/areas. Mark avoided populations with flagging/fencing and get field locations inspected and approved by Napa County. Replace green monardella plants/populations removed at a minimum 1.2:1 ratio. Prepare and implement a Mitigation and Monitoring Plan. Monitor replanting area for a minimum of 5 years to achieve a minimum 80 percent survival rate.	Before commencement of earthmoving activities and after construction

TABLE 4-1
STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Monit
3.3 Biological Resources (cont.)	3.3-1 (cont.)	In addition, the plan shall include, but not be limited to: (1) an onsite habitat enhancement and planting plan, and offsite plantings, at the discretion of the County, if there is not enough suitable habitat within the proposed Preservation Area on the property to support a 1.2:1 ratio of individual plants planted to individual plants removed for perennial plants; (2) the success criteria with a minimum 80 percent survival rate; (3) a minimum of 5 years of monitoring activities for the populations; and (4) control of invasive species and any other maintenance to ensure plantings achieve success criteria. Any offsite habitat shall also be placed under a mitigation easement with the same requirements as outlined in Mitigation Measure 3.3-1a.			
		After replanting, the replanting area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary.			
		If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be determined by the County shall be designated to fund the mitigation and monitoring effort, which shall be included in the endowment identified in Mitigation Measure 3.3-1a.			
		Mitigation Measure 3.3-1i (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the population of nodding harmonia located in proposed vineyard Block X12 and maintain a 20-foot buffer from the avoided population, consistent with the modified block configurations detailed in Figure 3.3-6. These avoided populations shall be demarcated with construction flagging/fencing before commencement of earthmoving activities. The precise locations of these fences shall be inspected and approved by Napa County before commencement of earthmoving activities. Any incursions into the avoidance area shall be conducted only by qualified personnel and only at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance area/boundary.	Owner/permittee, qualified botanist	Napa County	Revise EC approval t harmonia X12 and r avoided p with flaggi inspected
		Mitigation Measure 3.3-1j (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Prior to approval, Erosion Control Plan #P18-00446-ECPA shall be revised to show that the project will be implemented in two phases with a maximum of 75 gross acres in Phase 1, and with Phase 1 being designed to avoid removal of any two-carpellate western flax or green monardella. The phasing is intended to demonstrate that the special-status plants removed and replaced as result of the project (i.e., holly-leaved ceanothus, two-carpellate western flax, and green monardella) can be successfully replaced and reestablished consistent with Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h prior to commencement of Phase 2 by requiring that all replacement plantings for the entirety of the project be installed in Phase 1 and successfully established before commencement of Phase 2. A Phasing Plan shall be provided to Napa County for review and approval before its incorporation into #P18-00446-ECPA and shall at a minimum include the following:	Owner/permittee	Napa County	Revise EC approval t implemen 75 gross a to avoid re California flax, and g plant spec leaved ce Provide a review an into #P18
		 Phase 1: Revised project area boundaries (i.e., clearing limits) to achieve a maximum of 75 gross acres of vineyard development. Phase 1 shall be designed to avoid removal of any two-carpellate western flax or green monardella and provide them with a minimum 20-foot buffer (and in a manner such that no plants or populations become isolated (i.e., vineyard development surrounding plants/populations on all sides): Phase 1 shall include the planting and establishment of all mitigatory replacement plants required for the entirety of the vineyard development project in conformance with the Mitigation Monitoring Plans required by Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h. 			

Ionitoring and Reporting Actions	Timing
se ECPA #P18-00446-ECPA before oval to avoid the population of nodding ionia located in proposed vineyard Block and maintain a 20-foot buffer from the ded population. Mark avoided populations flagging/fencing and get field locations acted and approved by Napa County.	Before commencement of earthmoving activities and after construction
se ECPA #P18-00446-ECPA before oval to state that the project will be emented in two phases with a maximum of ross acres in either phase. Design Phase 1 oid removal of any narrow-flowered ornia brodiaea, two-carpellate western and green monardella. Limit special-status species removed in Phase 1 to holly- ed ceanothus. ide a Phasing Plan to Napa County for w and approval before its incorporation #P18-00446-ECPA.	Before commencement of earthmoving activities

 Table 4-1

 Stagecoach North Vineyard Conversion #P18-00446-ECPA Mitigation Monitoring and Reporting Program

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Monitoring and Reporting Actions	Timing
3.3 Biological Resources (cont.)	3.3-1 (cont.)	 ii. The project replacement plants required pursuant to this measure, and the '<i>Mitigation and Monitoring Plans</i>' per Measures 3.3-1b, 3.3-1f, and 3.3-1h, shall be planted/installed no later than the spring (i.e., March 20th) following the year of initiation of construction of the project (#P18-00446-ECPA). 2) Phase 2: Revised project boundaries (i.e., clearing limits) that includes the remainder of the approved project's development area (clearing limits), and does not exceed the approved project's total gross acres when combined with Phase 1 acreage. 3) After a minimum of five (5) years from the planting of all project/mitigatory 				
		replacement plantings required in Phase 1, the Applicant shall provide written documentation to the County from a qualified biologist confirming that the project replacement plantings have achieved the success criteria in the plant Mitigation and Monitoring Plans required by Mitigation Measures 3.3-1b, 3.3-1f, and 3.3-1h. If the success criteria fails to be achieved after reasonable efforts, commencement of Phase 2 vineyard development shall not occur, and monitoring shall continue annually thereafter until the success criteria has been achieved.				
		4) Upon the County's receipt of written confirmation from the project biologist that the success criteria has been achieved for project's replacement mitigatory plantings installed during Phase 1, the Applicant may proceed with vegetation removal or earthmoving activities associated with the development of vineyard in Phase 2, provided that any other applicable and required preconstruction requirements, conditions, or mitigation measure have been met to initiate Phase 2. In no event shall the Applicant commence any activities associated with Phase 2 unless and until the County has received the biologist's confirmation that the project replacement plantings have achieved the success criteria.				
		Mitigation Measure 3.3-1k (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): For earth-disturbing activities occurring between February 1 and August 31 (coinciding with the grading season of April 1 through October 15 [Napa County Code Section 18.108.070.L] and the bird breeding and nesting seasons), a qualified biologist shall conduct a preconstruction survey for nesting birds in all suitable habitat in the development area, and within a minimum of 500 feet from the project area. A qualified biologist is defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site. The preconstruction survey shall be conducted no earlier than 7 days before vegetation removal and the start of ground-disturbing activities. Should ground disturbance begin later than 7 days from the survey date, the survey shall be repeated. A copy of the survey results shall be provided to the Napa County Conservation Division and CDFW for review and written acceptance before the start of work.	Qualified biologist	Napa County, CDFW	Conduct preconstruction survey for nesting birds in all suitable habitat in the development area, and within a minimum of 500 feet from the project area. Provide Napa County and CDFW with a copy of the survey results for review and written acceptance. If nesting birds are found, identify appropriate avoidance methods and exclusion buffers in consultation with the County and USFWS and/or CDFW before the start of project activities.	Before commencement of earthmoving activities
		After work begins, if there is a period of no work activity of 7 days or longer during the bird breeding season, the survey shall be repeated to ensure that birds have not established nests during the period of inactivity. If nesting birds are found, a qualified biologist shall identify appropriate avoidance methods and exclusion buffers in consultation with the County's Conservation Division and USFWS and/or CDFW before the start of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species, as				
		determined by a qualified biologist in consultation with the County's Conservation Division and USFWS and/or CDFW. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County before the start of any vegetation removal or earthmoving activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.				

TABLE 4-1
STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Moni
3.3 Biological Resources (cont.)	3.3-1 (cont.)	Active nests discovered during the survey shall be monitored daily during construction activities by a qualified biologist for 1 week, and weekly thereafter, to ensure that established no-disturbance buffers are adequate in avoiding impacts on nesting birds. Monitoring shall continue in this manner until the nest is no longer active, as determined by a qualified biologist. If the qualified biologist observes nesting birds displaying potential disturbance behaviors, the qualified biologist shall cease all construction activities, and CDFW shall be consulted with regarding avoidance and minimization measures prior to the resumption of construction activities. In this event, construction activities shall not resume without CDFW's written permission. Using alternative methods to flush out nesting birds before preconstruction surveys shall be prohibited.			
	3.3-2: Construction and operation of the proposed project could have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW or USFWS.	Mitigation Measure 3.3-2a (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): The owner/permittee shall enhance 0.89 acres of California bay forest within the 79.3-acre Preservation Area (Figure 3.3-6). This shall be accomplished by planting California bay trees at a density similar to that occurring in the California bay forest mapped on the project site (Figure 3.3-2), about 50 trees per acre. Before vegetation clearing commences on the project site, a qualified professional knowledgeable and experienced with the habitats and trees at the project site shall prepare a detailed California Bay Mitigation and Monitoring Plan for review and approval by Napa County. The plan shall include details on replanting, techniques to avoid introducing plant pathogens to the replanting area, and preparation of the area for planting; a revegetation monitoring plan; success criteria with a minimum 80 percent survival rate; and reporting requirements. After replanting, the area shall be monitored for a minimum of 5 years. Annual reports shall be prepared and submitted to the County, with interim success criteria included to ensure that the plan is on track to meet the mitigation goals. After the 5-year monitoring period, a report shall be prepared and submitted to the County evaluating the success of the mitigation program and recommending further actions if necessary. If the success criteria have not been met at the conclusion of the 5-year monitoring period, monitoring shall continue until the success criteria have been achieved. An amount to be determined by the County shall be designated to fund the mitigation and monitoring effort.	Owner/permittee, qualified botanist/biologist	Napa County	Enhance Preserva trees at a California site. Prepare a Monitorin Monitor ti 5 years to survival r
		Mitigation Measure 3.3-2b (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid 14 acres of California bay forest from the development area, consistent with the modified block configurations detailed in Figure 3.3-6. This avoided area shall be demarcated with construction flagging/fencing before commencement of earthmoving activities. The precise locations of these fences shall be inspected and approved by Napa County before commencement of earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the boundary.	Owner/permittee, qualified botanist/biologist	Napa County	Revise E approval forest fro avoided p get field I Napa Co
	3.3-3: Construction and operation of the proposed project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Mitigation Measure 3.3-3 (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): All necessary permits shall be obtained before the construction of stream crossings and culvert replacement, and the owner/permittee shall comply with all permit minimization and mitigation measures. Impacts on waters of the United States would require a minimum mitigation ratio of 1:1 (mitigated:affected) to comply with USACE's no net loss policy; however, the Regional Water Board may require a ratio of 2:1 (mitigated:affected) or more. During construction of rocked water crossings and culvert replacement, all necessary best management practices shall be implemented to ensure that no soil or other materials are discharged into the onsite stream courses.	Owner/permittee	Napa County, USACE, Regional Water Board, CDFW	Obtain ne permit mi

Ionitoring and Reporting Actions	Timing
ance California bay forest within the pervation Area by planting California bay s at a density similar to that occurring in the fornia bay forest mapped on the project ware and implement a Mitigation and itoring Plan. itor the replanting area for a minimum of ars to achieve a minimum 80 percent ival rate.	Before commencement of earthmoving activities and after construction
se ECPA #P18-00446-ECPA before oval to avoid 13.98 acres of California bay st from the development area. Mark ded populations with flagging/fencing and ield locations inspected and approved by a County.	Before commencement of earthmoving activities
in necessary permits and comply with all nit minimization and mitigation measures.	Before commencement of earthmoving activities

 Table 4-1

 Stagecoach North Vineyard Conversion #P18-00446-ECPA Mitigation Monitoring and Reporting Program

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Mon
3.3 Biological Resources (cont.)	3.3-3 (cont.)	Before commencement of earthmoving activities and installation of stream crossings and culvert replacement associated with #P18-00446-ECPA, and before development of vineyard blocks reliant on those crossings, the owner/ permittee shall obtain—and shall demonstrate to Napa County that it has obtained—all required authorizations and/or permits from agencies with jurisdiction over waters of the United States or the state, such as: • Water Quality Certification (Section 401 permit) from the Regional Water			
		Board			
		Section 1602 Lake and Streambed Alteration Agreement from CDFW			
		Section 404 Nationwide Permit from USACE			
		Alternatively, the owner/permittee may revise the plan to include clear-span crossings, with footings located outside of identified setbacks, over these drainages to minimize and mitigate potential impacts on jurisdictional waters of the United States or state.			
	3.3-4: Construction and operation of the proposed project could interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. or could	Mitigation Measure 3.3-4 (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): The Vineyard Fencing Plan in Erosion Control Plan #P18-00446-ECPA shall be revised prior to approval to fence clusters of vineyard blocks as shown in Figure 3.3-6 and as described below. The revised Vineyard Fencing Plan shall be subject to review and approval by Napa County before its incorporation into #P18-00446-ECPA.	Owner/permittee	Napa County	Revise th #P18-00- vineyard to Napa Fence vir Fencing Impleme
	wildlife corridors, or could impede the use of native wildlife nursery sites.	 The following vineyard blocks shall be fenced individually: Blocks V6, W8, Y15, Y16, Z17, Z18, and Z20. The location of new wildlife exclusion fencing shall generally be limited to the outside edge of vineyard avenues. 			and encr
		 The following vineyard blocks shall be fenced in groups: Group 1—Blocks X10, X11, X12, and Y14; and Group 2—Blocks V1, V2, V3, and V4. To the maximum extent practical, the location of new wildlife exclusion fencing shall generally be limited to the outside edge of existing and proposed vineyard avenues and development areas. 			
		• A portion of vineyard Blocks V1, V2, and W8 shall be removed to provide and maintain a wildlife corridor at least 100 feet wide adjacent to the block(s), consistent with the modified block configurations detailed in Figure 3.3-6, to facilitate the movement of larger mammals through the area.			
		 New fencing shall use a design that has 6-inch-square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence. Exit gates shall be installed at the corners of wildlife exclusion fencing to allow trapped wildlife to escape. To prevent entanglement, smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing. 			
		 Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P18-00446-ECPA pursuant to the Vineyard Fencing Plan required by this mitigation shall be strictly prohibited, and would require County review and approval to ensure that the modified wildlife exclusion fencing location/plan would not result in potential impacts on wildlife movement. 			
		 Prior to completion and finalization of #P18-00446-ECPA, all wildlife exclusion fencing shall be inspected by the County to ensure that it was installed in substantial conformance with the approved Vineyard Fencing Plan. Any wildlife exclusion fencing not installed in conformance with the Fencing Plan shall be removed and replaced in accordance with the Fencing Plan. Any vegetation removed as part of incorrect fencing installation shall be replaced onsite at a ratio of 2:1 within the project's avoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval, that includes, at a minimum, the locations of replacement plantings, plant pallet and planting methods, success criteria of at least 80 percent, and a minimum 5 year monitoring schedule. 			

onitoring and Reporting Actions	Timing
e the Vineyard Fencing Plan in ECPA 00446-ECPA to fence clusters of ard blocks. Submit Vineyard Fencing Plan ba County for review and approval. e vineyards as indicated in the Vineyard ng Plan. ment measures to avoid indirect impacts ncroachment into avoided habitats.	Before commencement of earthmoving activities and after construction

TABLE 4-1
STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM

	STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM					
Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Monitoring and Reporting Actions	Timing
3.3 Biological Resources (cont.)	3.3-4 (cont.)	 The owner/permittee shall implement the following measures to avoid indirect impacts and encroachment into avoided habitats: The project boundaries (i.e., clearing limits) specified and shown on #P18-00446-ECPA, as modified by mitigation and/or a project alternative, shall be flagged in the field by the project engineer and protective construction fencing shall be installed along the boundaries. Construction fencing shall be inspected and approved by the County prior to the commencement of vegetation removal and earth-disturbing activities. No equipment or work shall be allowed within the avoidance areas. The protective construction fencing shall be inspected and approved by the County environment in place until all grading and erosion control measure installation are complete. For avoided areas located inside wildlife exclusion fencing as a result of implementation of mitigation, the protective constructive fencing shall be replaced with a wildlife-friendly permanent means of demarcation and protection around the avoided areas (such as split rail fence, three-strand wire fence, or rock fence/barrier) so that avoidance areas are not encroached upon or disturbed as part of ongoing vineyard operations. The permanent means of demarcation shall be described and shown on the fencing plan pursuant to Mitigation Measure 3.3-4, and shall be installed prior to completion and finalization of the ECPA. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement), any vegetation inadvertently removed that is not located within the approved boundaries or clearing limits of #P18-00446-ECPA shall be replaced onsite at a ratio of 2:1 within the project; savoidance areas, as approved by the planning director. A replacement plan shall be prepared for County review and approval that includes, at a minimum, the location of suitable habitat on the project parcel, the locations of replacement plan				
	3.3-5: Construction and operation of the proposed project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Mitigation Measure 3.3-5 (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Erosion Control Plan #P18-00446-ECPA shall be revised before approval to avoid the 0.75 acre of black oak forest located in the development area, consistent with the modified block configurations detailed in Figure 3.3-6. Before any earthmoving activities, temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the development area (typically within approximately 50 feet). The precise locations of these fences shall be inspected and approved by Napa County before the start of any vegetation removal or earthmoving activities. No disturbance, such as grading, placement of fill material, and equipment storage, shall occur in the designated protection areas for the duration of erosion control plan and vineyard installation. Trees removed that are not within the boundary of the project and/or not identified for removal as part of #P18-00446-ECPA shall be replaced onsite with 15-gallon trees at a ratio of 2:1 at locations approved by the director. Replacement trees shall be monitored and maintained as necessary for a minimum of 5 years to ensure an 80 percent survival rate. If replacement plantings are not achieving this success criterion during the initial monitoring period, the permittee shall be responsible for planting replacement trees and conducting ongoing monitoring to ensure that they achieve a survival rate of at least 80 percent. The owner/permittee shall refrain from severely trimming the trees and vegetation to be retained adjacent to the vineyard conversion area.	Owner/permittee	Napa County	Revise ECPA #P18-00446-ECPA before approval to avoid the 0.75 acre of black oak forest located in the development area. Mark avoided populations with flagging/fencing and get field locations inspected and approved by Napa County.	Before commencement of earthmoving activities and after construction

 Table 4-1

 Stagecoach North Vineyard Conversion #P18-00446-ECPA Mitigation Monitoring and Reporting Program

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Mor
3.4 Cultural and Tribal Cultural Resources	3.4-1: Construction and operation of the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines Section 15064.5.	Mitigation Measure 3.4-1a (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): Before commencement of earthmoving activities, an Archaeological Resources Worker Environmental Awareness Program shall be implemented. A qualified archaeologist or designee shall conduct training for project personnel regarding the appearance of archaeological resources and the procedures for notifying archaeological staff should materials be discovered. The owner/permittee shall provide documentation to Napa County before commencement of earthmoving activities showing that an Awareness Program has been developed and appropriate project personnel have been trained, shall ensure that project personnel are made available for and attend the training, and shall retain documentation demonstrating attendance.	Owner/permittee, qualified archaeologist	Napa County	Implem Environ project archaec for notif materia docume been ta
		Mitigation Measure 3.4-1b (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): If indigenous or historic-era archaeological resources are encountered during project development or operation, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. Napa County and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the find within 24 hours of discovery and notify the County of their initial assessment. Indigenous archaeological materials might include obsidian and chert flaked- stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); or battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, or deposits of metal, glass, and/or ceramic refuse. If the resource is indigenous, the County shall contact a Native American representative to assess the find. If the County determines, based on recommendations from the qualified archaeologist and the Native American representative (if the resource or unique archaeologist are source (as defined in State CEQA Guidelines Section 15064.5) or a tribal cultural resource (as defined in PRC Section 21074), the resource shall be avoided if feasible. Avoidance means that no activities associated with the project that may affect cultural resources shall occur within the boundaries of the resource or any defined buffer zones. If avoidance is not feasible, the County shall consult with appropriate Native American tribes (if the resource is indigenous) and other appropriate interested parties to determine treatment measures to avoid, mi	Construction contractor, qualified archaeologist	Napa County, qualified archaeologist	If indige resource develop within 10 avoidan

onitoring and Reporting Actions	Timing
ment Archaeological Resources Worker onmental Awareness Program, train et personnel regarding the appearance of eological resources and the procedures tifying archaeological staff should ials be discovered, and provide nentation showing that these steps have taken.	Before commencement of earthmoving activities
genous or historic-era archaeological rces are encountered during project opment or operation, cease all activity 100 feet of the find and flag the find for ance and inform the correct parties.	During construction

TABLE 4-1
STAGECOACH NORTH VINEYARD CONVERSION #P18-00446-ECPA MITIGATION MONITORING AND REPORTING PROGRAM

Issue Area	Impact	Mitigation Measure	Responsibility for Implementing	Responsibility for Monitoring	Mon
3.4 Cultural and Tribal Cultural Resources (cont.)	3.4-2: Construction and operation of the proposed project could disturb human remains, including those interred outside of formal cemeteries.	Mitigation Measure 3.4-2 (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): If human remains are uncovered during project construction, all work shall immediately halt within 100 feet of the find and the Napa County Coroner shall be contacted to evaluate the remains, and follow the procedures and protocols set forth in State CEQA Guidelines Section 15064.5(e)(1) and County General Plan Policy CC-23. If the County Coroner determines that the remains are Native American, the County shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5(c) and PRC Section 5097.98. Per PRC Section 5097.98, the County shall ensure that the immediate vicinity where the Native American human remains are located is not damaged or disturbed by further development activity until the County has discussed and conferred, as prescribed in PRC Section 5097.98, with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	Construction contractor	Napa County/Coroner	Halt wor County uncover Contact determin
3.4 Cultural and Tribal Cultural Resources (cont.)	3.4-3: Construction and operation of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.	 Mitigation Measure 3.4-3 (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative): If indigenous archaeological resources are encountered during project development or operation, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. Napa County and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be immediately informed of the discovery. If the resource is indigenous, the County shall contact a Native American representative to assess the find. If the County determines, based on recommendations from a qualified archaeologist and a Native American representative, that a resource identified during project implementation may qualify as a tribal cultural resource (as defined in PRC Section 21074), the resource shall be avoided if feasible. If avoidance is not feasible, the County shall consult with the appropriate Native American tribe to determine treatment measures to avoid, minimize, or mitigate any potential impacts on the resource pursuant to PRC Section 21083.2, State CEQA Guidelines Section 15126.4, and County General Plan Policy CC-23. Treatment may include, as feasible: Avoidance and preservation of resources in place, including but not limited to planning 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. Treating the resource with culturally appropriate dignity, taking into account the Tribal cultural values and meaning of the resource. Protecting the confidentiality of the r	Construction contractor, qualified archaeologist	Napa County, qualified archaeologist	Cease a flag for a resource
3.8 Land Use and Planning	3.8-1: Construction and operation of the proposed project could cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Implement Mitigation Measures 3.3-1a through 3.3-5 (proposed project, Increased Preservation Area Alternative, and Increased Watercourse Setbacks Alternative)	See above.	See above.	See abo

onitoring and Reporting Actions	Timing
ork within 100 feet and notify the Napa y Coroner if human remains are ered.	During construction
ct the NAHC if the remains are nined to be Native American.	
e activity within 100 feet of the find and r avoidance if indigenous archaeological rces are encountered.	During construction
bove.	See above.

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Appendix A Stagecoach Emergency Action Plan

2021 Emergency Immediate Actions

911

Stagecoach Vineyard

- \checkmark Ensure the safety of employees and public.
- ✓ Limit damages to property.
- ✓ Evacuate via the nearest safe exit, proceed to the evacuation site.
- \checkmark Account for all employees and or guests.
- ✓ Take specific immediate actions.

EVACUATION ASSEMBLY AREA:

Appoint person to:

- 1. Take names of employees/guests.
- 2. Road Control: Do not allow employees/guests to leave or enter in their cars as the roadways need to remain open for emergency vehicles.
- 3. Appoint individuals to Direct Emergency vehicles from the road through the vineyard to the scene.
- 4. If available, bring a first aid kit and communications.

Report Emergency to: Site Supervisor

Incident Supervisor to call Emergency services then:

Emergency Services Senior Manager Ranch Manager VP Vineyard Management Environmental Manager Security Manager Human Resources Manager

GENERAL ACTIONS

- □ Notify Security
- Don IC Vest

PEOPLE SAFETY:

- □ Evacuate uphill/upwind to safety
- □ Isolate area/establish 150-foot
 - zone around spills/fires
- □ Traffic control/people control

PROPERTY SAFTEY

- □ IC Assign Help
 - Emergency Services Direction
 - □ Record Keeper
 - Containment Actions
 - □ Communications
 - □ Stop Operations
- □ Isolate sources by securing power/ water or other
- □ Identify material
- □ MSDS
- □ Quantity Spilled
- □ Isolate outlets by blocking drains/ tilling broad perimeters
- □ Right the Container
- □ Look for sources of Ignition

ENSURE NOTIFICATIONS ARE COMPLETED

- Immediate Personnel
 - □ Emergency Services
 - □ Management Team
 - □ Compliance Authorities
- INCIDENT CLOSURE

Site Leader declares All Clear

- Decontaminate area & Equipment
- □ Compile used material list
- □ Conduct final briefing
- Conduct final briefing Corrective Action Report

Night Emergency Immediate Actions

Stagecoach Vineyard

NIGHT EVACUATION ASSEMBLY AREA:

Assemble at the Office

Report Emergency to: Night Supervisor

Night Supervisor to call Emergency services then:

Emergency Services911Senior Manager8Ranch Manager9VP Vineyard Management9Environmental Manager9Security Manager9Human Resources Manager9

PERSONNEL RECORD SHEET

Get specific information immediately from contractors or tour guides

NAMES at the location of the incident			NAMES at the Evacuation Location		
AFFECTED PE	RSONNEL]			
			Unaccounted per	sonnel	Location
Known Attr	ributes	[Unaccounted per	sonnel	Location
Known Attr Injury Types	ributes Extent	[Unaccounted per	sonnel	Location
			Unaccounted per	sonnel	Location
Injury Types			Unaccounted per	sonnel	Location
Injury Types Current Condition		Emergen			
Injury Types Current Condition Allergies	Extent	Emergen Call Back	cy Services Name		Location
Injury Types Current Condition Allergies Time of Incident	Extent	Call Back	cy Services Name		

EMERGENCY NUMBERS

For all emerge	encies	
Fuego / Polici	a / Ambulancia	
-	СНР	
Police/Sheriff		
Poison Control		1-800-876-4766
Napa County CUPA		
Chemical Spill		1-800-645-8265
Nearest Hospital:	Queen of the Valley Hospital 1000 Trancas St. Napa, CA 94558 707-252-4411	

Calling Emergency Numbers

If you have a cell phone, call 707-253-0911 and state "I have an emergency". This will ensure that your emergency call goes to the local dispatch center.

When Calling 911, Speak clearly and Calmly Be prepared to give the following information

- 1. Type of emergency
- 2. Exact location
- 3. Extent of injuries
- 4. Your name, phone number and address:

Stagecoach Vineyards - PH#

- Address: 3555 Soda Canyon Road, Napa, CA 94558
- ▶ 1st Cross Street: Soda Canyon Creek Rd.

Main Entrance		
LONGITUDE	38°27'16.30"	Ν
LATITUDE	122°17'29.25"	W

5. Make sure you do not hang up until dispatch has guided you to do so

If you call 911 by accident, please wait for dispatch to pick up the phone, then explain that there is no emergency; dispatch has to send a unit to the site until they are notified there is NO emergency.

Aerial Map Evacuation Site Office



Located in Office: 1st Aid Kit Bloodborne Pathogen Kits

INTRODUCTION

The goal of this plan is to provide:

- 1. Safety of employees, visitors, vendors, etc.
- 2. Protection of property with minimum loss or damage.
- 3. Restoration of normal operations with minimal delay.
- This bulletin contains quick reference information and appropriate checklist procedures to follow for specific types of emergencies.
- *Read and become familiar with this information.*
 - Know the proper evacuation procedures. Know where the fire extinguishers are located.
 - Move to a safe location if necessary.
- If you need additional information or have questions, please contact your Emergency Response Team

ACCIDENT / INJURY



Do not move injured person unless a serious hazard exists (fire, explosion, etc.).

- If the incident involves confined space, DO NOT ENTER!!! Develop rescue plan with trained individuals.
- If injury is serious or if person is unconscious get help and call 911.
- Attempt to calm and reassure victim. Keep victim lying down if possible.
- Acquire First Aid, Blood borne pathogen kits, extraction or other required equipment.
- Interview victim for symptoms, conditions, allergies, medications. Ensure medications are available to employee prior to transport.
- Immediately notify supervision of incident.
- Treat minor injuries with common sense approach.
 - □ Cuts / Bleeding apply direct pressure with clean dry bandage, elevate above heart as needed.
 - □ Burns / Chemical burns flush with cold water.
 - □ Contact Department Supervisor
 - □ *Monitor for shock*

INJURY ACTIONS

- □ Notify Security
- Don IC Vest
- **PEOPLE SAFETY:**
 - □ Evacuate others to clear area, make help teams available.
 - □ Isolate area/ establish clear path to emergency services
 - □ Establish Human chain from road access to incident location.
 - □ Utilize first aid / blood borne pathogen kits.

PROPERTY SAFTEY

- □ IC Assign Help
 - Emergency Services Direction
 - □ Record Keeper
 - □ Containment Actions
 - □ Communications
- □ Stop Operations
- □ Isolate potential risks to others
- □ Identify cause (heat, air, health)
- □ If confined space, develop rescue plan
- \Box Look for chemical exposures
- \Box Look for other risks

ENSURE NOTIFICATIONS ARE

- COMPLETED
 - Immediate Personnel
 - Emergency Services
 - □ Management Team
 - □ Compliance Authorities

INCIDENT CLOSURE

- □ Site Leader declares All Clear
- Decontaminate area & Equipment
- □ Compile used material list
- □ Conduct final briefing
- Corrective Action Report

Notes: _

Fires



If you discover a fire, call 911

- Warn everyone in the immediate area.
- Obtain nearest fire extinguisher and discharge at base of fire.
 - □ Use sweeping motion with extinguisher until fire is out
 - □ Never fight a fire alone. Always notify someone.
 - □ *Never put yourself or someone else at risk.*
- \star Follow evacuation procedures when necessary.

Manager will determine if evacuation is necessary.

Have Site Specific Hazardous Material Business Plan (HMBP) Available.

Acquire Site Hazardous Material Inventories for Emergency Services

Refer to Site Specific Spill Prevention Countermeasure and Control Plan (SPCC)

FIRE ACTIONS □ Notify Security Don IC Vest **PEOPLE SAFETY:** □ Evacuate upwind to safety □ Isolate area / establish safety zone around fires □ Traffic control / people control **PROPERTY SAFTEY** □ IC - Assign Help □ Direct Emergency Services □ Record Keeper □ Containment Actions □ Communications □ Stop Operations □ Isolate sources by securing power / gas or other ignition sources □ Identify materials in buildings □ MSDS □ Isolate if possible by tilling broad perimeters ENSURE NOTIFICATIONS ARE COMPLETED □ Immediate Personnel □ Emergency Services □ Management Team □ Compliance Authorities **INCIDENT CLOSURE**

- □ Site Leader declares All Clear
- Decontaminate area & Equipment
- □ Compile used material list
- □ Conduct final briefing
- □ Corrective Action Report

Notes:				

Appendix B Water Availability Analysis Memoranda (Richard C. Slade & Associates 8/17/21 and 2/11/22)



August 17, 2021

DRAFT MEMORANDUM

To: Donald Barrella Planner III Napa County Department of Planning, Building and Environmental Services 1195 Third Street, Second Floor Napa, California Sent via email (donald.barrella@countyofnapa.org)

From: Anthony Hicke, CHG Richard C. Slade & Associates LLC

Job No. 217-NPA08

Re: Additional Data Request related to Draft Environmental Impact Report (DEIR) State Clearinghouse #2019100250 Stagecoach North Vineyard Conversion Erosion Control Plan (ECP) Application #P18-00446-ECPA Stagecoach Vineyards Soda Canyon Area, Napa County, California Prepared by ESA, dated February 2021

Provided herein are additional data and comments related to the Draft Environmental Impact Report (DEIR), State Clearinghouse #2019100250, for the Stagecoach North Vineyard Conversion, Erosion Control Plan (ECP) Application #P18-00446-ECP. Information provided herein are related to a request for additional data from Napa County. The specific data request received from Napa County is presented below, followed by the response from RCS.

"Explain downward trend in well levels and why well number 7 didn't recover ("bounce back") after drought. (I3-29, I5-4)"

Figures 2B through 4B in the Appendix K Memorandum by RCS (titled "Presentation of Groundwater Monitoring Data Stagecoach Vineyards Soda Canyon Area, Napa County, California", RCS 2020) show the water level data for the Stagecoach South mitigation monitoring wells plotted along with a "cumulative departure from mean rainfall" curve. These cumulative departure curves are shown thereon to help define trends in rainfall over the periods of rainfall record at the rain gages listed. In general, when the slope of a cumulative departure from mean rainfall over time), the total rainfall in each water year during that period was at or below the long-term mean water year rainfall. Alternatively, when the slope of the departure curve is positive (i.e., sloped upward to the right over time)



over time), the total rainfall in each water year during that period tended to be at or above the long-term mean water year rainfall.

In general, the water level changes over the period of water level record (roughly 2008 through 2019) depicted on Figures 2B through 4B follow the changes in the two cumulative departure curves, including the water levels in Well 7 (shown on Figure 4B). This suggests that changes in water levels in the wells are responding to changes in annual rainfall at the Stagecoach property.

On page 3 of the Appendix K Memo, it is noted that "after further review, Stagecoach Vineyards reports that the January 2015 to June 2016 dataset was erroneous due to possible transducer malfunction." (RCS, 2020). This malfunction resulted in the erroneous report of water level measurement in late-2016, and the likely erroneous water levels are obscuring the trend of the graph. Ignoring the likely erroneous data, water levels in Well 7 do show some water level recovery as a result of the post drought rain. The amount of recovery observed is commensurate with the trend in the cumulative rainfall departure curve, and similar to the water level trends in the other mitigation monitoring wells.

"Clarification/explanation of the differences between overall 'rainfall patterns' and 'yearly rainfall' and how they generally affect basin recharge rates both annually and in the long-term. Any details of potential effects of climate change that can alter the frequency and intensity of rain and effects on recharge rates."

"... and the difference between 'rainfall patterns' and 'annual rainfall' related to recharge rates (including projected future precipitation trends predicated by climate change that could lower percolation/recharge rates)."

First, it is important to note that the Stagecoach North property is not located within a "groundwater basin" as defined by the State of California. Groundwater beneath the Stagecoach North property is stored in a fractured rock aquifer system (i.e., rocks of the Sonoma Volcanics).

Comment O1-44 and Comment O1-46 both suggest that changes in the frequency of and intensity of rainfall will cause a decrease in groundwater recharge at the property, and both comments cite Swain, 2018. It is important to note that Swain, 2018 does not discuss groundwater recharge, deep percolation of rainfall, or the effects of changing rainfall patterns on groundwater recharge. Swain (2018) does discuss, however, projections related to potential changing weather patterns in California as a result of climate change. Therein, the frequency of extremely dry years is projected to increase in Northern California, with the assertion that "the likelihood of individual dry seasons may already be increased relative to the preindustrial period" (Swain, 2018). Hence, the analyses presented by RCS, because they rely on the long-term annual average, may already include some effects of climate change projected to occur in Northern California. Further, the analyses presented in the referenced article found "statistically robust increases in the simulated frequency of extremely heavy precipitation events" and the results of the work "suggest that future multi-year droughts in California may exhibit an increased propensity to be interrupted by very wet interludes." (Swain, 2018). In the "Guidance for Climate



Change Data Use During Groundwater Sustainability Plan Development" document published by DWR (2018), "the northern and central regions of California are expected to experience an increase in precipitation" for both the 2030 and 2070 projected climate conditions. Figures A-13 and A-14 therein show average annual precipitation increases in the San Francisco Hydrologic Region as increasing by 4.6% and 10.2% in 2030 and 2070, respectively (DWR, 2018).

No information is provided in the comment letter O1 to support the commenter's assertion that the projected change in frequency and intensity of rainfall in Napa County, California, will result in decreased groundwater recharge at the Stagecoach North property. Research by others has shown that the relationship of groundwater recharge to rainfall intensity is complex and dependent on the specific conditions in the area of study, including geology and site specific aguifer characteristics. In the article "Effects of rainfall intensity on groundwater recharge based on simulated rainfall experiments and a groundwater flow model," the authors describe a labcreated recharge experiment with controlled "rainfall" and a "river sand" soil matrix, followed by groundwater modeling using the laboratory results, to help investigate the relationship between rainfall intensity and groundwater recharge (Wang, 2015). While the study did identify a negative linear relationship between the rainfall recharge coefficient and rainfall intensity, "the measurements and modeling were executed under very specific conditions and did not consider the changes of complex underlying surface and aquifer characteristics." (Wang, 2015). Recall that the Stagecoach North property is underlain by a fractured rock volcanic aquifer system, and not an alluvial aquifer as modeled by Wang (2015). Further, over a range of intensities, from low to high, the groundwater recharge rate actually initially increased with increasing rainfall intensity, before decreasing with increasingly higher intensities (Wang, 2015).

In Chapter 5 of the reference "Climate Change and Groundwater: Planning and Adaptations for a Changing and Uncertain Future" (Maliva, 2021), it is noted that "groundwater recharge rates in some situations may be controlled to a greater degree by the seasonality of precipitation, and the intensity and duration of individual rainfall events", and that "recharge rates also depend on soil and surficial rock properties." The text describes the challenges of using a "top down approach" of climate modeling in which large scale models are downscaled to represent smaller areas, and therefore include "cascading uncertainties." Therein, the reference lists a summary of select modeling studies conducted throughout the world in areas of varying climate, and hydrogeologic conditions. Results of the summary show that of the models reviewed, changing rainfall intensity may either, in some cases, increase groundwater recharge, or in others decrease groundwater recharge, depending on the site specific conditions of the areas studied (Maliva, 2021).

Deep percolation of rainfall is site specific due to highly variable geologic factors, as noted above. In light of these data, the assertions in comment letter O1 that greater intensity rainfall (of an unstated magnitude) could reduce groundwater recharge are speculative. In order to address uncertainty due to climate change, the Appendix J WAA applied a conservative rainfall recharge percentage estimate for the Stagecoach North Analysis, including a site specific analysis to reduce the estimated recharge percentage from 17% to 14% of the average annual rainfall (RCS, 2018), discussed further below. Further, rainfall estimates used for the WAA analyses were based on long-term, site specific annual averages that included several periods of drought. As



evidenced by the conservative analysis approach employed in the Appendix J WAA (RCS, 2018), coupled with the projections of increased rainfall in the region in the future (Swain, 2018) (DWR, 2018), the analyses presented in the Stagecoach North DEIR are representative and appropriate for the project, and inclusive of future possible climate change conditions.

"Clarification and explanation of basin recharge time post-drought, and how recharge rates/times will be able to restore the basin once the drought subsides. Water supply may be uncertain over the long-term because it will not make up these deficits post-drought, and an alternative water supply is not identified."

"Further clarification and explanation expecting California to have a 'normal' water/precipitation supply for five years in a row as that relates to recent and projected future precipitation trends in California. And any implications from the United States Geological Service graph showing this has not occurred since 1993-1998."

Issues mentioned in the statements above seem to be primarily raised in comment O1-44. Firstly, it must be understood that the drought analysis presented in Appendix J (RCS, 2020) is quite conservative. As described in that text, the theoretical drought envisioned for the analysis is a theoretical drought lasting six years in which only 50% of average rainfall occurs. The theoretical drought duration and rainfall total were chosen to represent a conservative drought based on details from historic rainfall records and prior drought periods. The theoretical rainfall the rainfall volume of 50% of average is similar to the rainfall total during the two-year (WY 1975-76 to WY 1976-77) drought, and a six-year drought duration is similar to the WY 1986-87 to WY 1991-92 in which the total rainfall was 75% of average; see Table 5 of the Appendix J WAA (RCS, 2018). Hence, the theoretical drought conditions (magnitude and duration) are more conservative than conditions that are recorded in the actual rainfall record.

Recharge calculations in the Appendix J WAA document are based on average rainfall for the Stagecoach North property (RCS, 2018). This means that years of above average rainfall and below average rainfall (drought periods) that have occurred during the period of record are inherently included in the calculations presented in the Appendix J WAA. Over the long-term, the recharge calculated for the property is higher than the demand. Hence, more recharge is projected to occur than is required to be extracted for the project in the future. To help address uncertainty in future rainfall total and projections, conservative estimates of rainfall recharge percentages were employed in the Appendix J WAA.

Comment O1-44 relies on an underlying assumption (not directly stated) that a period of average rainfall equal to the duration of a preceding drought must occur in order for groundwater in storage to remain in balance; this is not true. This logic ignores the fact that years of above average rainfall occur in addition to below average rainfall and average rainfall, and that the magnitude of the above-average and below-average rainfall years must be considered in the calculation. As an example, rainfall totals shown on Figures 2A though 5A in the Appendix K montioring memo show that in 2016 rainfall at the property were roughly 60% higher than the annual average in 2016 and 40% higher than the average in 2018. Above average rainfall years



contribute more recharge to the region than an average year, not just what the average recharge to the region would do. As an example, following a drought period of 4 years, there could be 1 year of average rainfall, followed by an above average year, followed by a drought year, followed by an average year. The rainfall during that period could still reach the average rainfall total, even though multiple successive years of average rainfall were not realized.

Comment O1-44 references a graph from the USGS Central Valley model (NOAA, 2021) to illustrate rainfall patterns in California. Firstly, the subject Stagecoach North subject property is located far from the Central Valley of California, and the data presented on the graph may not be applicable to the subject property. Average annual rainfall totals in California's Central Valley are on the order of 5 to 20 inches per year (AMNH, 2021), whereas average annual rainfall at the subject property is on the order of 39 inches per year (Appendix J WAA, RCS, 2018). Importantly, the USGS graph does not illustrate the rainfall total, or the magnitude of the wet and dry years shown thereon, but only illustrates whether or not the years shown were above average (wet) or below average (dry) rainfall years. Note that research by Swain (2018) states that "...future multi-year droughts in California may exhibit an increased propensity to be interrupted by very wet interludes." Hence, the magnitude of future "very wet" periods of rainfall may be sufficient to offset extended drought periods that could occur in California in the future, and is an important consideration when interpreting rainfall and recharge.

It is also important to remember that calculated average rainfall is relative to the period of observation. Evaluating rainfall trends by analyzing the cumulative departure from the mean for a rainfall data set addresses the variability of rainfall, and enables review of overall rainfall trends. Because the creation of the cumulative departure curve considers the entire period of record, and also considers the magnitude of non-average rainfall events, wet periods and dry periods can be illustrated. As discussed above, cumulative departure rainfall curves are shown in the Appendix K Monitoring Memo along with water level data form the Stagecoach south mitigation montioring wells (RCS, 2020).

"Resolution/explanation of apparent discrepancy between 14% and 17% percolation rates, ... "

There is no discrepancy regarding estimated rainfall recharge percentages in the Appendix J "Water Availability Analysis" (RCS, 2018). In a March 2021 comment letter in response to the Subject DEIR, RCS stated that on DEIR Page 3.7-26 "the recharge volume is shown as 84.1 AF/yr." (this value was derived using the 17% recharge estimate). While this value is discussed by RCS in the Appendix J WAA on page 14, in the paragraphs following the 84.1 AF/yr estimate, a value of 69.3 AF/yr is presented as a "slightly more site specific estimate" of recharge (derived using the adjusted 14% recharge estimate). This 69.3 AF/yr estimate is also repeated in the conclusions of Appendix J, and should be used in the DEIR text instead of the 84.1 AF/yr value.

As explained in the Appendix J "Water Availability Analysis (WAA)" (RCS, 2018), the 17% recharge estimate was derived from the referenced "Updated Napa County Hydrogeologic Conceptual Model" (LSCE&MBK, 2013), and is an estimate of the percentage of rainfall that



deep percolates within the watershed in which the Stagecoach North property is located. To present a more conservative, more site-specific estimate of recharge, RCS presented a methodology in the Appendix J WAA in which the watershed-wide rainfall recharge percentage was adjusted based on the geologic characteristics of the watershed. By assuming that the alluvium exposed on the floor of the Napa Valley within the watershed has a greater recharge percentage than the Sonoma Volcanic rocks within the watershed, the estimated rainfall percentage at the property (underlain by Sonoma Volcanics rocks) is estimated to be 14%. Table 3 in the Appendix J WAA (RCS, 2018) was created to illustrate this calculation. RCS recommends evaluation of recharge at the Stagecoach North property using the 14% rainfall recharge factor to present a more site-specific and conservative analysis.



7

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References

- American Museum of Natural History (AMNH) Website, Central Valley California, Last Accessed August 12, 2021 <u>https://www.amnh.org/learn-teach/curriculum-collections/grace/grace-tracking-water-from-space/california-central-valley</u>
- Department of Water Resources (DWR). 2018. Guidance for Climate Change Data Use During Groundwater Sustainability Plan Development. Sustainable Groundwater Management Program.
- ESA. 2021. Draft Environmental Impact Report (DEIR) State Clearinghouse #2019100. Stagecoach North Vineyard Conversion Erosion Control Plan (ECP) Application #P18-00446, prepared for Napa County
- Luhdorff & Scalmanini Consulting Engineers and MBK Engineers (LSCE&MBK), January 2013. Updated Hydrogeologic Conceptualization and Characterization of Conditions, Prepared for Napa County.
- Maliva, R. 2021. Modeling of Climate Change and Aquifer Recharge and Water Levels. In: Climate Change and Groundwater: Planning and Adaptations for a Changing and Uncertain Future. 2021, pp 89 – 111. Springer Hydrogeology.
- National Oceanic and Atmospheric Administration (NOAA), California Drought: 2011-2017, A Story About the Historic Drought, Modeling, Analysis, Predictions and projections, Last accessed March 24, 2011, https://noaa.maps.arcgis.com/apps/Cascade/index.html?appid=0307d687789c4d1cbec

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citing United States Geological Service, Graph of the Central Valley Hydrological Model (2009).

Richard C. Slade and Associates LLC (RCS). 2018. Results of Aquifer Testing of Two Onsite Wells and Napa County Tier 1 Water Availability Analysis for Stagecoach North Vineyard Development Project Napa County, California. December 2018. DEIR Appendix J

—. 2020. Presentation of Groundwater Monitoring Data, Stagecoach Vineyards, Soda Canyon Area, Napa County, California. Memorandum to Trini Amador, E&J Gallo, Stagecoach Vineyards. January 31, 2020. DEIR Appendix K

- Swain, D.L., Langenbrunner, B., Neelin, J.D. *et al.* 2018 Increasing Precipitation Volatility in Twenty-First-Century California. *Nature Clim Change* **8**, 427–433 (2018).
- Wang, H., Gao, J. En, Zhang, M., Li, X., Zhang, S., & Jia, L. 2015. Effects of Rainfall Intensity on Groundwater Recharge based on Simulated Rainfall Experiments and a Groundwater Flow Model. *Catena*, 127, 80-91.



February 11, 2022

MEMORANDUM

To: Donald Barrella Planner III Napa County Department of Planning, Building and Environmental Services 1195 Third Street, Second Floor Napa, California Sent via email (donald.barrella@countyofnapa.org)

From: Anthony Hicke, CHG Richard C. Slade & Associates LLC

Job No. 217-NPA08

Re: Questions from Napa County Counsel related to "Draft Environmental Impact Report (DEIR) State Clearinghouse #2019100250 Stagecoach North Vineyard Conversion Erosion Control Plan (ECP) Application #P18-00446-ECPA" Stagecoach Vineyards Soda Canyon Area, Napa County, California Prepared by ESA, dated February 2021

Provided herein are additional data and comments related to certain hydrogeologic elements of the Draft Environmental Impact Report (DEIR), State Clearinghouse #2019100250, for the Stagecoach North Vineyard Conversion, Erosion Control Plan (ECP) Application #P18-00446-ECP. Information provided herein by RCS is related to questions received via email from Ms. Laura Anderson, Napa County Counsel regarding the Water Availability Analysis prepared by RCS (2018) as part of the Stagecoach North DEIR. The specific questions received from Napa County Counsel are presented below in bold text, followed by the response from RCS.

"Is the assumed 35" of average annual rainfall [used in the RCS 2018 WAA] still appropriate?"

Yes, the assumption of long term average annual rainfall of 35 inches per year used in the WAA (RCS, 2018) is still appropriate for the project. As stated in the WAA, that assumption was conservative compared to other rainfall data sources reviewed for the WAA. More importantly, the WAA compares the 35 inches per year assumption to the precipitation data set published by



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the PRISM Climate Group at Oregon State University that includes the climatological period between 1981 and 2010. Using that data set, RCS determined that the average rainfall for the subject property for the 1981 to 2010 date range was approximately 38.7 inches (3.23 ft). An updated PRISM data set was recently released for the period between 1991 and 2020. Using that data set, an annual average of 38.7 inches per year was calculated for the Stagecoach North property, the same as in the previous calculation. Hence, the assumption of 35 inches per year of average annual rainfall on which the analyses in the WAA were based is still an appropriate (and conservative) assumption.

"The [RCS WAA] report assumes a 24-week irrigation season but given the prolonged drought and warmer temperatures, has the irrigation season become longer?"

As noted in the WAA, the 24-week irrigation season used in the RCS WAA was reported by the property vineyard manager. RCS recently consulted with the vineyard manager for the Stagecoach property regarding the length of the irrigation season. That vineyard manager reports that the irrigation season has not become longer, and the 24 weeks per irrigation season previously projected by the vineyard manager is still adhered to today.

"Is the assumed 14% deep percolation rate still appropriate?"

Yes, the 14% deep percolation rate is still appropriate today. As described in the WAA, 14% is a conservative estimate of the percentage of rainfall that could be available to deep percolate on the property. Various data sources suggest that even higher deep percolation percentages may be appropriate for the property, as discussed in the text of the WAA. This conservative estimate of the rainfall recharge percentage (14%) was utilized by RCS in the WAA to address uncertainty in future weather scenarios, and the possible effects of those weather changes on deep percolation rates (if any).

Is the assumed 48% of annual recharge for drought conditions still appropriate?

Yes, the theoretical prolonged drought scenario considered by RCS for the WAA (2018) is still appropriate. In the WAA (RCS, 2018), RCS considered a drought in which 48% of average rainfall occurred every year for six consecutive years. In the available period of record, there has not been a period of similar duration in which 48% of the average annual rainfall has occurred.

On page 19 of the WAA (RCS, 2018) a conservative estimate of the total drought-period "recharge deficit" was presented. Assuming a theoretical six-year drought period in which only 48% of the average annual rainfall might occur, a total recharge "deficit" of about 111 AF might occur at the Stagecoach property.



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Recently, California is experiencing an extreme drought that has lasted (to date) two years. The nearest rain gage to the property with long term data is the CDEC Atlas Peak rain gage (see Table 2 of the RCS 2018 WAA; table not reproduced herein). Data for that gage show that in the period ranging from WY 2019-2020 to WY 2020-21, approximately 25% of the average annual rainfall was recorded. (It is important to note that the 25% value may be an underestimate because data for that rain gage do not extend through entire drought period and may be missing rainfall data within drought period).

Taking 25% of the average annual recharge estimated for the property of 69.3 AF/yr yields an "extreme" drought period recharge of 17.3 AF/yr, or a "recharge deficit" of 52.0 AF/yr. Assuming a drought period duration of two years, then a total recharge deficit of 104 AF (52.0 AF/yr times two years) may occur during an extreme drought. This number is just less than the "recharge deficit" calculated in the WAA (RCS, 2018) for a "prolonged 6 year" drought. Hence, the analyses in the WAA are still appropriate.

"What does the monitoring of groundwater usage show in 2019 through 2021 on the neighboring parcel (Stagecoach) in terms of how much water has been used during the prolonged drought? Is .50 af/yr per acre of vines still appropriate or is more water needed because of the drought and warmer temps?"

According to the property owner, water usage at the Stagecoach South Vineyards property has remained unchanged from previous use in 2019 through 2021. As reported by the vineyard manager, the neighboring Stagecoach Ranch south still utilizes an average of 0.50 AF/yr per acre. No additional data are available at this time.

"Is the 1,052 af of groundwater storage assumed beneath the property as of April 2018 still a valid assumption?"

Yes, the groundwater in storage calculation presented in the RCS WAA (2018) is still valid today. Groundwater in storage calculations are dependent upon the depth of the static water level in a well at any given time (along with other factors that do not change over time). As discussed in the WAA text, the estimate of 1,052 AF of groundwater in storage is based on a static water level in Well SN-2 of 251 ft below ground surface (ft bgs) on April 26, 2018. As reported by the property owner, the more recent static water level in Well SN-2 was 248 ft bgs in December 2021, shallower than the previous measurement. Because the static water levels are very similar, then the groundwater in storage calculation is still valid.



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References

- Richard C. Slade and Associates LLC (RCS). 2018. Results of Aquifer Testing of Two Onsite Wells and Napa County Tier 1 Water Availability Analysis for Stagecoach North Vineyard Development Project Napa County, California. December 2018. DEIR Appendix J
- California Data Exchange Center, California Department of Water Resources, 2022. https://cdec.water.ca.gov

Appendix C Mitigation Plantings Water Demand Estimate Calculations (ESA 11/2/22)



memorandum

date	November 2, 2022
to	Don Barrella Napa County
сс	Laura Anderson, Napa County
from	Jennifer Aranda and Isaac Swanson, Landscape Architect
subject	Stagecoach North #P18 00446-ECPA Mitigation Plantings Water Demand Estimate Calculations

Purpose

This memo explains the irrigation calculations used for estimating yearly water demand for the mitigation plantings for the proposed Stagecoach North Vineyard Conversion Erosion Control Plan Application Project (#P18-00446-ECPA) (proposed project).

Yearly Water Demand Estimate

Conservative first-pass irrigation calculations for the proposed project suggest that the water demand for the mitigation plantings is unlikely to exceed 2.055 acre-feet per year during the initial plant establishment period when irrigation water demand by the new plantings is expected to be the highest. Mitigation plants would most likely be weaned off of temporary irrigation after their third year of supplemental irrigation.

Water Demand Assumptions and Calculations

This water demand estimate is based upon standard irrigation calculations (see attached spreadsheet) that include the following assumptions:

- <u>Landscape Coefficient</u> of 0.5 (determined by multiplying the following three factors):
 - Conservatively estimates that each mitigation plant requires a moderate amount of water (<u>plant</u> <u>species factor</u> of 0.5), or approximately half the amount of supplemental irrigation that cool season turf would require to thrive in the Napa County climate.
 - Conservatively estimates that most ground area will be vegetated in the mitigation areas (<u>plant</u> <u>density factor</u> of 1.0)

- Estimates that the microclimate in the project site is not noticeably drier, windier, or wetter than surrounding properties in the Yountville area (<u>microclimate factor</u> of 1.0)
- The calculation takes into account the monthly <u>Landscape Evapotranspiration Rate</u> for the Yountville area of Napa County (https://puddle-stompers.com/waterwonk/monthly_eto.php). Put another way, the amount of water applied would change monthly based upon monthly evapotranspiration rates for Yountville.
 - Multiplying the Landscape Coefficient of 0.5 by the monthly reference evapotranspiration rate for Yountville provides the <u>monthly landscape evapotranspiration</u> rate.
- <u>Total Water Applied</u> per month of the year calculation
 - This calculation very conservatively assumes that 80% (<u>irrigation efficiency</u>) of the irrigation water applied to planting areas will be used by the mitigation plantings, assuming that water-conserving point-source drip irrigation emitters will be used to water each mitigation plant.
 - Total <u>monthly landscape evapotranspiration</u> / <u>irrigation efficiency</u> (0.8) =<u>total water applied per</u> <u>month</u>.
 - Adding up these monthly applications of water equals 28.263 inches (2.355 feet) of water applied each year of the assumed 3-year plant establishment period to the base of each plant.
- Total Water Demand Assumptions
 - This calculation conservatively assumes that six square feet will need to be irrigated for each mitigation plant (conservatively assuming that the average square footage requiring irrigation is somewhere between 4 square feet (small plant) and 9 square feet (tree/large shrub) per plant).
 - The calculation assumes 6,333 mitigation plants will need irrigation (1,914 holly-leaf ceanothus, 3 narrow-flowered California brodiaea, 2,966 two-carpellate western flax, 1,394 green monardella, and 56 container plants in the California Bay forest). Holly-leaf ceanothus, narrow-flowered California brodiaea, and green monardella are to be planted at a 1.2:1 mitigation ratio.
 - \circ 6,333 mitigation plants x 6 square feet per plant = 38,003 square feet that water will be applied to.
 - 38,003 square feet x 2.355 feet of water applied per year = 89,507 cubic feet per year of water applied.
 - With approximately 7.4805 gallons equaling one cubic foot, 89,507 cubic feet per year of water applied equals approximately 669,558 gallons per year of supplemental irrigation.
 - With 325,851 gallons equaling 1 acre-foot, 669,558 gallons per year equals approximately 2.055 acre-feet per year of irrigation for mitigation plant establishment at the proposed project site.

MITIGATION PLANTS IRRIGATION WATER DEMAND WORKSHEET Stagecoach North Project (#P18 00446-ECPA)

Step 1	Calculate th	ne Lands	scape Coefficient								
	_		_				Water Need Category	Species Factor			
	k _s =	0.5	species factor	input, range = 0.1-0.9, see W	UCOL list for v	alues	very low =	< 0.1			
	k _d =	1.0	density factor	input, range = 0.5-1.3, see C	hapter 2		low =	0.1 - 0.3			
	k _{mc} =	1.0	microclimate factor	input, range = 0.5-1.4, see C	hapter 2		moderate =	0.4 - 0.6			
							high =	0.7 - 0.9			
	k _i =	0.5	landscape coefficient	calculation, $k_l = k_s * k_d * k_{mc}$							
Step 2 Calculate Landscape Evapotranspiration											
	kl =	0.5	landscape coefficient	previously calculated							
				·····							
January	ET _o =	1.30	reference evapotranspiration	input, CIMIS website	ET _I =	0.65	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
February	ET _o =	1.70	reference evapotranspiration	input, CIMIS website	ET _I =	0.85	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
March	ET _o =	2.80	reference evapotranspiration	input, CIMIS website	ET _I =	1.40	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
April	ET _o =	3.90	reference evapotranspiration	input, CIMIS website	ET _I =	1.95	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
May	ET _o =	5.10	reference evapotranspiration	input, CIMIS website	ET _I =	2.55	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
June	ET _o =	6.00	reference evapotranspiration	input, CIMIS website	ET _I =	3.00	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
July	ET _o =	7.10	reference evapotranspiration	input, CIMIS website	ET _I =	3.55	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
August	ET _o =	6.10	reference evapotranspiration	input, CIMIS website	ET _I =	3.05	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
September	ET _o =	4.80	reference evapotranspiration	input, CIMIS website	ET _I =	2.40	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
October	ET _o =	3.10	reference evapotranspiration	input, CIMIS website	ET _I =	1.55	landscape evapotranspiration	calculation, $ET_I = k_I * ET_o$	inches/month		
November	ET _o =	1.50	reference evapotranspiration	input, CIMIS website	ET _I =	0.75	landscape evapotranspiration	calculation, $ET_1 = k_1 * ET_0$	inches/month		
December	ET _o =	0.90	reference evapotranspiration	input, CIMIS website	ET _I =	0.45	landscape evapotranspiration	calculation, $ET_1 = k_1 * ET_o$	inches/month		
						22.15	5				

reference for ETo California Irrigation Management Information System, CIMIS website

Step 3 Calculate Total Water Applied

	IE = 0.8		irrigation efficiency	input, estimated, range ; Spray efficiency is typically 50-70%
January	TWA =	0.81	total water applied	calculated, TWA = ET/IE inches/month
February	TWA =	1.06	total water applied	calculated, TWA = ET/IE inches/month
March	TWA =	1.75	total water applied	calculated, TWA = ET/IE inches/month
April	TWA =	2.44	total water applied	calculated, TWA = ET/IE inches/month
May	TWA =	3.19	total water applied	calculated, TWA = ET/IE inches/month
June	TWA =	3.75	total water applied	calculated, TWA = ET/IE inches/month
July	TWA =	4.44	total water applied	calculated, TWA = ET/IE inches/month
August	TWA =	3.81	total water applied	calculated, TWA = ET/IE inches/month
September	TWA =	3.00	total water applied	calculated, TWA = ET/IE inches/month
October	TWA =	1.94	total water applied	calculated, TWA = ET/IE inches/month
November	TWA =	0.94	total water applied	calculated, TWA = ET/IE inches/month
December	TWA =	0.56	total water applied	calculated, TWA = ET/IE inches/month

Step 4. Develop Preliminary Watering Schedule and Precipitation Rates

						Preliminary Watering	g Schedule	
			Required		Required			
	Irrigation Ap	pplication # Irrigation Application	Application	Application	Precipitation	Application	Application	Monthly Application
	Interval (day	<u>/s) per month</u>	(inch)	Duration (minutes)	Rate (inch/hour)	Duration (minutes)	(inches)	(inches)
January	3	10	0.08	60	0.08	8	0.08	0.81
February	3	10	0.11	60	0.11	11	0.11	1.12
March	3	10	0.18	60	0.18	18	0.18	1.83
April	3	10	0.24	60	0.24	24	0.24	2.44
May	3	10	0.32	60	0.32	32	0.33	3.25
June	3	10	0.38	60	0.38	37	0.38	3.76
July	3	10	0.44	60	0.44	44	0.45	4.47
August	3	10	0.38	60	0.38	38	0.39	3.86
September	3	10	0.30	60	0.30	30	0.31	3.05
October	3	10	0.19	60	0.19	20	0.20	2.03
November	3	10	0.09	60	0.09	10	0.10	1.02
December	3	10	0.06	60	0.06	6	0.06	0.61
								28.263 inches

Precipitation Rate =

Note: Precipitation Rate does not affect total water needed.

This precipitation rate is a placeholder and does not affect total water volume needed for the project's irrigation of mitigation plantings.

0.61 inches/hour

Step 5. Estimate Total Water Demand

Irrigation Area =	38,003	square feet
Irrigation Volume =	89,507	cubic feet
Total Water Demand =	669,558	gallons/year

assuming 6 square feet irrigated per plant

2.054799 acre-feet per year

Appendix D Stagecoach North #P18-00446-ECPA Conditions of Approval

CONDITIONS OF APPROVAL STAGECOACH NORTH #P18-00446-ECPA

Open Burning—Condition of Approval:

The owner/permittee shall conduct open burning of cleared vegetation in accordance with BAAQMD Regulation 5, which allows open burning only during specified burn periods. Prior notification shall be submitted to BAAQMD and documentation of compliance shall be submitted to Napa County.

Hazardous Materials—Conditions of Approval:

The project owner/permittee shall implement the following best management practices:

- The owner/permittee shall implement the Hazardous Materials Business Plan on file (DHD Establishment #805 Permit #436369) with the Napa County Division of Environmental Health documenting all proposed hazardous materials to be used onsite during construction and operation. If storage amounts or the use of hazardous materials change during project operation, the owner/permittee shall update the Hazardous Materials Business Plan, as necessary. The Napa County Division of Environmental Health will review the plan and may conduct inspections to ensure that the Hazardous Materials Business Plan is being followed during project operations. Updates to the Hazardous Materials Business Plan, if warranted, will be made through the California Environmental Reporting System.
- During construction and operation, best management practices consistent with recommendations from the Napa County Division of Environmental Health shall be used to reduce hazardous material contamination of surface water and groundwater. Best management practices may include but are not limited to:
 - Workers shall follow manufacturers' recommendations on the use, storage, and disposal of chemical products.
 - Workers shall avoid overtopping fuel gas tanks and shall use automatic shutoff nozzles where available.
 - During routine maintenance of equipment, grease and oils shall be properly contained and removed.
 - Discarded containers of fuel and other chemicals shall be disposed of properly.
 - Spill containment features shall be installed at the project site wherever chemicals are stored overnight.
 - All refueling, maintenance of vehicles and other equipment, handling of hazardous materials, and project staging areas shall occur at least 100 feet from

watercourses, the existing groundwater well, and any other water resource to avoid the risk of surface water and groundwater contamination.

- To prevent the accidental discharge of fuel or other fluids from vehicles and other equipment, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- Vehicle engines shall be shut down during refueling.
- No smoking, open flames, or welding shall be allowed in refueling or service areas.
- Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.
- A spill containment kit that is recommended by the Napa County Planning, Building and Environmental Services Department or local fire department shall be onsite and available to staff if a spill occurs.

Water Quality—Condition of Approval:

The project owner/permittee shall construct rocked water crossings first, before conducting other vegetation removal, earth-disturbing, or construction activities that require the transport of construction equipment across streams. Before the construction and installation of stream crossings associated with #P18-00446-ECPA, and development of vineyard blocks reliant on those crossings, the owner/permittee shall obtain and demonstrate to the County that all required authorizations and/or permits from agencies with jurisdiction over waters of the United States or the state, such as:

- Water Quality Certification (Section 401 permit) from the Regional Water Board
- Section 1602 Lake and Streambed Alteration Agreement) from the California Department of Fish and Wildlife
- Section 404 Nationwide Permit from the U.S. Army Corps of Engineers

Alternatively, the owner/permittee may revise the plan to include clear-span crossings, with footings located outside of identified setbacks, over these drainages to minimize and mitigate potential impacts on jurisdictional waters of the United States or state.

Groundwater Management, Wells—Condition of Approval:

This condition is implemented jointly by the Napa County Public Works and Planning, Building, and Environmental Services Departments:

The owner/permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly). Such data will be provided to the County, if the PBES [Planning, Building, and Environmental Services Department] Director determines that substantial evidence

indicates that water usage at the vineyard is affecting, or would potentially affect, groundwater supplies or nearby wells. If data indicate the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices, and shall be capped consistent with the approved vineyard and replanting acreage and groundwater usage identified in the Water Availability Analysis.

To support the County's groundwater monitoring program, well monitoring data as discussed above will be provided to the County if the Director of Public Works determines that such data could be useful in supporting the County's groundwater monitoring program. The project well will be made available for inclusion in the groundwater monitoring network if the Director of Public Works determines that the well could be useful in supporting the program.

In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the Erosion Control Plan would significantly affect the groundwater basin, the PBES Director shall be authorized to recommend additional reasonable conditions on the permittee, or revocation of this permit, as necessary to meet the requirements of the County Code and to protect public health, safety, and welfare.

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