



3/29/2021

Sent via email

Don Barrella, Planner
Napa County Department of Planning, Building and Environmental Services
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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

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.”

(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.

II. The DEIR's Analysis of and Mitigation for the Project's Greenhouse Gas Emissions is Inadequate

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.)

A. The DEIR's accounting of Project GHG emissions is misleading

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.

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/m², 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 (*e.g.*, 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 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.

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

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 MTCO_{2e} 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." (CEQA 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

¹ 3461 g/m² = 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 MTCO_{2e}.

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

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.)

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.

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

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. (*Id.*) Moreover, the DEIR arrives at this conclusion in two short paragraphs. (DEIR at 5-22–5-23.)

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. (*See* 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.)

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.

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,

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

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

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 3.3-1i), 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 3.3-1d, 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.

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

The biological resources analysis in the DEIR entirely fails to discuss the potential effects that the Project's use of pesticides might have on plants and animals. The DEIR anticipates the use of fertilizers and herbicides including sulfur and other common fertilizers in planned vineyard blocks. (DEIR 3.6-7-8.) This will place many special status plants within 20 feet of sites where pesticides and herbicides are being used in high volumes. (*See, e.g.*, 3.3-50.) Despite the close proximity of special status plants to vineyards where pesticides are in use, there is no analysis of whether these pesticides will impact native plant life. (*See* 3.3-50-52)

Over 27 million pounds of pesticides were used on wine grapes in 2016 in California. (California Department of Pesticide Regulation, 2018, pp. 402-412.) The most widely used pesticide on wine grapes in the state is sulfur. Researchers at the Center for Environmental Research and Children's Health at the University of California, Berkeley, found that use of asthma medication and adverse respiratory symptoms increased in children that lived up to 1 kilometer away from where sulfur spraying had occurred. (Raanan et al., 2017.) Other widely used pesticides on wine grapes in California include 1,3-dichloropropene (1,3-D), chlorpyrifos, paraquat dichloride, simazine and imidacloprid. (California Department of Pesticide Regulation, April 2018, pp. 402-412.) 1,3-D is classified by the U.S. Environmental Protection Agency ("U.S. EPA") as "very highly toxic" to aquatic invertebrates (U.S. Environmental Protection Agency, 1998, p. 69) and is listed by the California Office of Environmental Health Hazard Assessment ("California OEHHA") under California's Proposition 65 as causing cancer in humans.² In its 2017 final biological evaluations of the impacts of chlorpyrifos on Endangered Species, the U.S. EPA found that 1778 out of 1835 endangered and threatened species in the U.S. were likely to be adversely affected by the continuing use of chlorpyrifos. (U.S. Environmental Protection Agency, 2017.) Potential modification of critical habitat was also identified for 780 out of 794 species by the continuing use of chlorpyrifos. Chlorpyrifos is considered "very highly toxic" to fish and aquatic invertebrates by the U.S. EPA. (U.S. Environmental Protection Agency, 2002, p. 47.) Chlorpyrifos is listed by California OEHHA under California's Proposition 65 as causing developmental toxicity in humans³ and has been proposed as a 'toxic air contaminant' in the state by the California Department of Pesticide Regulation. (California Department of Pesticide Regulation, September 2018.) Paraquat is one of the most acutely lethal pesticides still in use today. One sip can be lethal to a full grown adult. A collaborative study done by National Institutes of Health and the Parkinson's Institute and Clinical Center in Sunnyvale, CA found that use of paraquat is positively associated with the development of Parkinson's disease in people. (Tanner, et al. 2011.) Simazine is listed by California OEHHA under California's Proposition 65 as causing developmental toxicity and Female reproductive toxicity in humans.⁴

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: <https://oehha.ca.gov/chemicals/13-dichloropropene>.

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

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: <https://oehha.ca.gov/proposition-65/crnr/atrazine-propazine-simazine-and-their-chlorometabolites-dact-dea-and-dia-0>.

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 special-status 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 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 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

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. 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

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,

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 *Vineyard Area*. (*Vineyard 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 withdrawals. (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

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).

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 pre-mitigation 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 ¶2.) The Napa River pollution includes nutrients, pathogens, sediments, and silts. (DEIR 3.7-6 ¶4.) Additionally, the tidally influenced area of the Napa River contains nutrients and pathogens. (DEIR 3.7-6 ¶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 ¶5-6.) Sedimentation decreases fish habitat for special-status species such as Chinook salmon, California freshwater shrimp, and Steelhead. (DEIR 3.7-6 ¶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:

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

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. 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

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

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, rock 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

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

The Project's mitigated plan would create over 91.3 new acres of vineyard and plans to use pesticides, herbicides, mildewcides, and fertilizers. The use of these chemicals can significantly impact both aquatic and terrestrial habitats and risk human health. The DEIR must identify all planned chemical use and provide mandatory, enforceable practices to ensure appropriately reduced impacts.

i. The integrated pest management is voluntary and lacks meaningful enforceable standards

The DEIR reliance on Integrated Pest Management ("IPM") is ill-informed and does not meet CEQA Guidelines requiring enforceability. (CEQA, Guidelines § 15126.4(a)(2); *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* 83 Cal.App.4th 1252, 1261 (2008) (mitigation measures must be "fully enforceable").) The IPM outlined is entirely voluntary and does not have meaningful enforceable standards. Thus, it is not legally binding. The DEIR outlines the number of fertilizers, herbicide, and mildewcide applications and the potential chemicals used but omits any enforceable limits of pesticide application or type of chemicals. (DEIR 3.6-7 ¶6 3.6-8 ¶1.) Additionally, the DEIR discusses twelve applications of sulfur treatments to abate mildew. (DEIR 2-12) Since the Applicant has made no legal promises for its pesticide use, the DEIR cannot and should not rely on this mitigation measure to reduce harm to aquatic and terrestrial wildlife or the preservation of Yountville's veteran house water supply in Rector Reservoir.

The DEIR details the virtues of IPM, discussing how it should monitor to assess the level of pests and beneficial insects and correlate this data with economic thresholds for each pest and the timing of treatments to consider all available management controls techniques to determine the most appropriate action. (DEIR 3.6-7 ¶4) But the DEIR also states that fertilizer application is at the vineyard manager's discretion, while the Project should perform soil analysis before any applications. (Appendix A EC-5 4.) This discretion shows that while touting potentially environmentally superior options, the type of chemicals is ultimately in the vineyard management's sole discretion.

One concrete requirement of the DEIR is that there will be no herbicide applications before February 15 of each year. (Appendix A EC-5 4.) This standard ensures adequate crop cover to filter the hazardous pollutants before reaching the groundwater and nearby streams without actually requiring the Applicant to provide adequate crop cover before application. If this IPM requirement is to have meaningful enforcement, then it must ensure both no herbicide spraying before February 15 and adequate crop cover within vineyards rows before application. This requirement is paramount with climate change altering California's rainy season, potentially change when crop cover can emerge and adequately act as a filter for hazardous pollutants. (Swain *Increasing Precipitation Volatility in Twenty-First Century California*, at 430-431. (finding that California will have "increased sharpness in perception seasonality" that will increase flooding and concentrate when rains fall to winter months).) Thus, the DEIR must ensure its mitigation goals will achieve their desired outcomes in California's changing climate.

The DEIR touts its cover crop as a valuable asset, yet it will allow annual mowing and necessary reseeding and tilling on fifty percent of cover crops. (DEIR 3.6-8 ¶1; DEIR Appendix

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 ¶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 ¶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

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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Exhibit 1

(if applicable)