Attachment 4
March 29, 2022, Appellant's Response
To Revised Proposal

March 29, 2022

Napa County Board of Supervisors
1195 Third Street, Ste. 310
Napa, CA 94559

Re: Appeal of Proposed Revisions to the Environmental Impact Report for the Walt Ranch Vineyards Conversion (No. P11-00205-ECPA).

The Center for Biological Diversity (Center) urges the Napa County Board of Supervisors (Board) to grant the Center's appeal and reject the Applicant's March 8, 2022, proposed revision to Mitigation Measure 6.1 ("MM 6.1") of the Walt Ranch vineyard (Project) environmental impact report (EIR). If the Board chooses to accept the proposed revisions to MM 6.1 of the Project, the Center's requests that the Board only do so after the Applicant fully addresses the Center's concerns with the proposed revisions laid out below.

The Center is encouraged to see the Applicant retract from an ill-conceived planting program and move towards the Court of Appeal's requirement to place 248 acres of woodland habitat in a conservation easement to offset the Project's 27,528 $MTCO_2e$ of greenhouse gas (GHG) emissions. However, the revision lacks sufficient specificity and assurances that such mitigation will be appropriately implemented. Therefore, the proposed revisions fail to comply with the Napa County Superior Court's Peremptory Writ of Mandate and Judgment Granting Peremptory Writ of Mandate, or the California Environmental Quality Act (CEQA). Until specific criteria (outlined below) are provided to ensure the successful preservation of 248 acres of appropriate woodland habitat and its corresponding carbon sequestration and storage potential, the Board should reject the proposal as lacking substantial evidence that the measure will adequately mitigate the Project's GHG impacts. Providing defined prioritization criteria for the selection of preservation land is also needed to facilitate transparent enforcement by the County while demonstrating to a concerned public that claimed carbon sequestration benefits are being achieved.

The recent climate change assessment by the Intergovernmental Panel on Climate Change (IPCC) emphasizes the dire impacts of climate change already happening and warns of catastrophic consequences if we refuse to increase serious efforts to reduce greenhouse gas (GHG) emissions (IPCC 2022). The report points to nature-based solutions, like the preservation of existing intact habitats, as an important piece of the solution to mitigate and adapt to impacts of climate change (IPCC 2022). Therefore, mitigation measures like the one proposed here must ensure that the carbon sequestration and storage requirement is met.

The configuration of conservation easements will play a critical role in the success of the proposed mitigation measure to store the required amount of carbon in perpetuity and offset the Project's GHG impacts. Protecting the integrity of remaining intact forest ecosystems and biodiversity is critical for effective carbon sequestration and storage (Watson et al. 2018). Large,

intact forest areas have been shown to sequester more carbon than smaller, fragmented forest patches, and carbon density near forest edges has been found to be "very low" compared to the interior core areas of forest (Ma et al. 2017). This suggests that edge effects of human disturbance and activities degrade the capacity of woodlands to sequester and store carbon (Ma et al. 2017). In addition, higher plant and animal diversity has been linked with higher carbon storage in forests (as reviewed in Watson et al. 2018) while lower plant and animal diversity has been linked with fragmented habitats (e.g., Damschen et al. 2019; Delaney et al. 2021). Therefore, well-planned conservation easements that optimize carbon sequestration and storage potential by prioritizing the preservation of intact contiguous habitat will help ensure that mitigation requirements are met. Such action will facilitate other co-benefits, like protecting biodiversity, maintaining water quality and water supply, minimizing erosion, and maintaining resilience to climate change and extreme weather events like wildfire and flooding (Watson et al. 2018).

The Center urges the Board to revise the mitigation measure to incorporate the best available science to ensure that the required amount of stored carbon is met. The following recommendations are provided to help achieve this goal:

1. Provide more specificity regarding where the 248 acres of conservation easements within the 312 acres of identified available woodland will be located. Understanding that some flexibility in identifying appropriate easement areas is needed, the Project Proponent should provide more clarity regarding the possible configuration of the easements.
2. Prioritize conserving large areas of intact and contiguous habitats as much as possible to demonstrate they aim to optimize carbon sequestration and storage potential.
3. Demonstrate how conservation easements will be buffered from roads and vineyard development to minimize edge effects that will degrade the woodlands and reduce their carbon sequestration and storage potential.
4. Implement easements in consultation with local and regional biologists, government agencies, and other stakeholders.
5. Demonstrate that adequate resources will be set aside to protect, monitor, and adaptively manage the conservation easements in perpetuity.

Preservation of Contiguous Habitat Will Optimize Chances of Reaching Carbon Sequestration Mitigation Requirements

A review published in Nature highlights the irreplaceable environmental and social value of intact forest ecosystems and their importance for climate change mitigation and adaptation (Watson et al. 2018). They provide essential carbon sequestration and storage capacity, influence water availability, regulate local and regional weather regimes, and buffer human communities from the negative effects of extreme climatic events like drought and wildfire (Watson et al. 2018). When implementing habitat conservation for ecosystem service purposes like carbon sequestration and storage, it is important to take into account that optimal ecosystem services are the result of the functional integrity of healthy ecosystems. Degraded forests and forest edges have been found to have about 10 to 80% less carbon stored in above-ground biomass and soils compared to interior areas of intact forests (Ma et al. 2018; Wekesa et al. 2016; de Paula et al. 2011). This suggests that implementing conservation easements on woodland habitats under the

proposed mitigation measure must be carefully planned to avoid fragmentation and degradation, and buffers from current or future human-impacted landscapes should be incorporated to protect the easements in perpetuity. Yet, the Project Proponent only provides minimal information, stating that some 248 acres out of 312 available woodland habitat will be protected without providing sufficient details or prioritization criteria regarding how they plan to optimize (or at least prevent the degradation of) the carbon sequestration and storage potential of the conservation easements. The proposed mitigation measure should take into account the surrounding land use including the 64 remaining acres of woodland habitat as well as additional habitat (e.g., shrublands, grasslands) that would remain vulnerable to future development. Given the growing climate change emergency, the Project Proponent needs to demonstrate that their GHG mitigation measure has the highest chances as possible of successfully mitigating the required 27,528 $MTCO_2e$.

There is overwhelming evidence that edge effects from human disturbance like roads and development (including agriculture) impact plants and wildlife and degrade ecosystems (see Yap et al. 2021). Negative effects of human disturbance influence important ecosystem dynamics like food webs, nutrient cycling, pollination, and community structure, which, in turn, can disrupt carbon sequestration and storage (Watson et al. 2018; Sobral et al. 2017). Therefore, prioritizing the preservation of contiguous habitats will benefit biodiversity, which will help improve chances of maintaining ecosystem health and carbon sequestration and storage capacity. The proposed mitigation could and should be improved to minimize losses, maximize carbon storage and ecosystem health, and ensure the GHG mitigation requirements are met.

Despite the clear improvements over the previous GHG mitigation proposal, the new proposal still lacks sufficient evidence to support a finding that it will adequately mitigate the Project's significant GHG impacts. In accordance with the Court of Appeal's mandate, the County must show where the preserved areas will be, and ensure those areas provide the claimed carbon sequestration. This can be achieved by revising the current proposal to include specific criteria that prioritize the preservation of contiguous woodland areas that are protected from edge effects of development and managed for long term success. The rapidly escalating climate crisis demands every effort be made to ensure the continued functionality of carbon storying woodland habitats. The Center urges the Board to require a comprehensive and transparent GHG mitigation plan that complies with CEQA and meets the urgency of the moment.

Sincerely,

Ross Middlemiss
Tiffany Yap, D.Env/Ph.D.
Aruna Prabhala
Center for Biological Diversity
1212 Broadway, St. 800
Oakland, CA 94612

Ph: (707) 599-2743
rmiddlemiss@biologicaldiversity.org
tyap@biologicaldiversity.org
aprabhala@biologicaldiversity.org

References

Damschen, E. I., Brudvig, L. A., Burt, M. A., Jr, R. J. F., Haddad, N. M., Levey, D. J., Orrock, J. L., Resasco, J., & Tewksbury, J. J. (2019). Ongoing accumulation of plant diversity through habitat connectivity in an 18-year experiment. Science, 365(6460), 1478–1480.

Delaney, K. S., Busteed, G., Fisher, R. N., & Riley, S. P. D. (2021). Reptile and Amphibian Diversity and Abundance in an Urban Landscape: Impacts of Fragmentation and the Conservation Value of Small Patches. Ichthyology and Herpetology, 109(2), 424–435.

de Paula, M. D., Costa, C. P. A., & Tabarelli, M. (2011). Carbon storage in a fragmented landscape of Atlantic forest: the role played by edge-affected habitats and emergent trees. Tropical Conservation Science, 4(3), 340–349.

Intergovernmental Panel on Cliamte Change (IPCC). (2022). Climate Change 2022 Impacts, Adaptation and Vulnerability Summary for Policymakers.

Ma, L., Shen, C., Lou, D., Fu, S., & Guan, D. (2017). Ecosystem carbon storage in forest fragments of differing patch size. Scientific Reports, 7(1).

Sobral, M., Silvius, K. M., Overman, H., Oliveira, L. F. B., Raab, T. K., & Fragoso, J. M. V. (2017). Mammal diversity influences the carbon cycle through trophic interactions in the Amazon. Nature Ecology and Evolution, 1(11), 1670–1676.

Watson, J. E. M., Evans, T., Venter, O., Williams, B., Tulloch, A., Stewart, C., Thompson, I., Ray, J. C., Murray, K., Salazar, A., McAlpine, C., Potapov, P., Walston, J., Robinson, J. G., Painter, M., Wilkie, D., Filardi, C., Laurance, W. F., Houghton, R. A., … Lindenmayer, D. (2018). The exceptional value of intact forest ecosystems. In Nature Ecology and Evolution (Vol. 2, Issue 4, pp. 599–610). Nature Publishing Group.

Wekesa, C., Leley, N., Maranga, E., Kirui, B., Muturi, G., Mbuvi, M., & Chikamai, B. (2016). Effects of Forest Disturbance on Vegetation Structure and Above-Ground Carbon in Three Isolated Forest Patches of Taita Hills. Open Journal of Forestry, 06(02), 142–161.

Yap, T. A., Rose, J. P., Anderson, I., & Prabhala, A. (2021). California Connections: How Wildlife Connectivity Can Fight Extinction and Protect Public Safety.