April 12, 2023

Annalee Sanborn
PPI Engineering
2800 Jefferson Street
Napa, CA 94558

RE: Response to Comments (Tree Preservation) – Red Boat Vineyard Agricultural Erosion Control Plan (ECPA) File #P21-00307-ECPA; 1373 Soda Canyon Road: APN 039-380-037

Ms. Sanborn,

This letter provides a response to a request from Napa County for additional information/analysis regarding tree preservation located at 1373 Soda Canyon Road (APN: 039-380-037) in Napa County, California. The request for additional information is outlined in a series of emails between PPI Engineering and Planning, Building, and Environmental Services Department, which have been shared with WRA.

It is WRA's understanding that the proposed project is the installation of a new 7.0-acres (9.0 gross acres) vineyard block on the property. Aaron Arthur (author) of WRA conducted the *Biological Resources Reconnaissance Survey* for the project (field visits and report draft), and reviewed PPI Engineering's calculations for tree preservation, and concur that the project will result in a greater than 75 percent tree retention thereby meeting the 3:1 preservation ratio required under Chapter 18.108.020 of the Napa County Code of Ordinances (Table 1).

Table 1. Tree Preservation Calculations

Tree Preservation Information	Amount
Proposed Clearing Limits (acres)	9.0
Trees Existing in 2016 (acres)[1]	3.2
Trees Proposed to be Removed (acres)	0.7
Trees on Less than 30% Slopes Outside Setbacks on Parcel (acres)	1.8
Trees Preserved on Less than 30% Slopes and Outside Setbacks (acres)	1.1
Trees on Slopes between 30% and 50% Outside Setbacks on Parcel	1.1
Trees Preserved on Slopes between 30% and 50% and Outside Setbacks (acres)	1.1
Trees Preserved (percent)[2]	76%

[1]Source: Aerial Photograph and WRA post-fire tree count
[2]75 percent (or higher) is the same as 3:1 preservation (or higher)

The subject property contains both blue oak woodland and coast live oak woodland. As noted above, these woodlands are present within and outside of the proposed vineyard blocks. Both woodlands are homogeneous throughout their respective stands, with no detectable difference in species composition, tree and shrub age/size/structure, or soil characteristics between the proposed preserved area and proposed vineyard blocks.

The proposed preserved area on the slope leading into Soda Creek provides an effective and perennial buffer for Soda Creek. Vegetation slows surface flows and captures sediment through its roughness. Likewise, vegetation increases infiltration of water into the soil along living root channels and discharging cleaner surface and subsurface waters more slowly into Soda Creek. The 2017 Atlas Peak Fire severely burned the region including the riparian and adjacent woodland canopies along Soda Canyon. Preserved vegetation provides seed stock for the emergence of new generations of trees, shrubs, and herbs contributing to vegetation succession. This may include continued growth of trees and shrubs along Soda Canyon. Such growth will provide streambank stability and shading thereby resulting in cleaner, cooler water for amphibians, fishes, and aquatic invertebrates. Increased plant diversity, density, and vertical heterogeneity will provide ever increasing habitat for birds and other terrestrial organisms closely associated with riparian areas and woodlands. Migrating terrestrial (e.g., deer, mountain lion) and semi-aquatic species (e.g., frogs) have the opportunity to continue to take advantage of the proposed preserved area vegetation cover as well as access an increasing vegetative cover along Soda Canyon. Such migratory corridors allow local wildlife to move up and down Soda Canyon accessing other protected lands with less threat of traffic strikes along Soda Canyon Road.

Therefore, it is WRA's opinion that the preserved area proposed on PPI Figure 1 dated March 2023 (attached), irrespective of slope, is sufficient to protect Soda Creek and meet the spirit and standard of 18.108.020 of the Napa County Code of Ordinances.

Please contact me if you have questions or require additional information. Sincerely,

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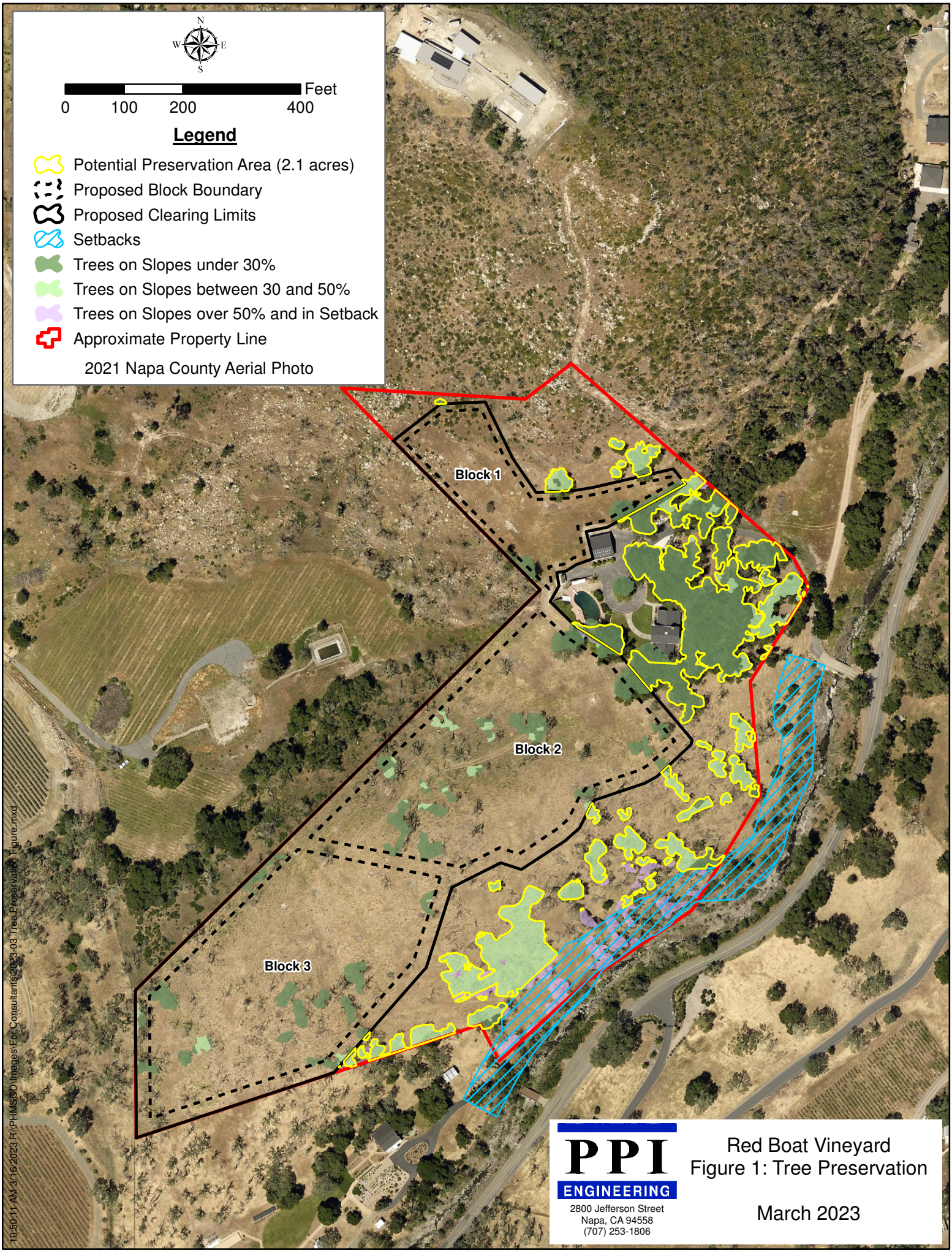
Aaron Arthur
Associate Biologist
WRA, Inc.
arthur@wra-ca.com

Attachments: Figure 1. Tree Preservation, provided by PPI Engineering



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Red Boat Vineyard
Figure 1: Tree Preservation

March 2023