

Exhibit B-4



NORTHWEST BIOSURVEY
Environmental & Planning Services
1905 Westlake Drive, Kelseyville CA 95451
Phone (707) 889-1061
nwbio98@gmail.com

July 23, 2021

Mr. Drew Aspegren
Napa Valley Vineyards Eng.
nvvedla@covad.net

RE: Site Inspection of Atlas View II Property

Dear Mr. Aspegren,

As you requested, Northwest Biosurvey staff visited the Atlas View II property on July 21, 2021, to assess site conditions following the Hennessy Fire in August of 2020.

The entire property was burned during the fire. The survival and/or recovery of vegetation on the site is variable depending on structural layer. This site visit was conducted too late in the season to allow for a floristic-level botanical survey, however, woody vegetation and recovered grasses and forbs were identifiable.

Tree canopy: Trees on the property had the highest rate of survival. However, survival rates are largely dependent on species. Oaks fared best with overall survival estimated at close to 70 percent but with pockets of 100 percent mortality. Other hardwoods did not do as well including big-leaf maple, California bay, and Pacific madrone. Many of these trees survived as standing deadwood with extensive stump-sprouting. Pines did poorly but will eventually be replaced by seedlings.

Shrub layer: The shrub layer was dominated by common manzanita which was reduced to standing deadwood by the fire. However, these shrubs are fire adapted and are stump-sprouting from mature root systems and should fully recover within a few years.

Ground Cover: The entire standing biomass of the forb and grass layer was removed by the fire. The seed bed remained, and the property now supports a nearly continuous grass cover. The effects of the fire followed by a year of severe drought has had a significant effect on the ground cover. Most notable is the dense invasion of yellow star thistle which now contributes as much as 50-percent of the cover within grasslands. Many native grasses, which are perennial, have not recovered but may persist as surviving seed bed. If suitable rainfall and microclimate conditions occur in the future, these populations may recover.



Species with Sensitive Regulatory Status: While lacking sensitive status as a plant taxon, when occurring as a natural plant community, purple needle grass (*Stipa pulchra*) is considered to have sensitive regulatory status as listed in Table 4-5 of the Napa County Baseline Data Report. A population of purple needle grass was identified and mapped in Figure 2 of the 2018 biological resource assessment for this project conducted by Northwest Biosurvey. The site of this mapped population was visited during our July 21, 2021, site visit. No purple needle grass was found at the site which is now dominated by slender wild oat, barbed goat grass, perennial rye, and yellow star thistle. This population may recover with suitable rainfall and microclimate conditions; however, the invasion of yellow star thistle may be an added obstacle to its recovery.



Overview: The flora of the Atlas View II property is an established natural plant community adapted to the fire ecology of the Interior North Coast Range. It has undergone repeated cycles of fire and recovery at least since the end of the Pleistocene epoch over the past 11,000 years. Due to the moderate to good survival of woodlands, the site should resemble its pre-fire structure within 5 to 10 years. Re-establishing the pre-fire mix of mature tree species will require decades.

The 2018 biological resource assessment we completed for this property in 2018 should be considered to remain a valid, long-term depiction of the biological resources on the property with the understanding that the climax communities described in the study are in the process of reestablishing themselves. The site will resemble its pre-fire structure within 5 to 10 years with finer adjustments to the makeup of the tree canopy taking decades longer.



Steve Zalusky
Principal Biologist