



LIVE OAK

ASSOCIATES, INC.

November 28, 2022

Mark Perry
NWC#5
PO Box 73399
Puyallup, WA 98373

Subject: Results of the habitat assessment for protected bumble bees and woodland woollythreads for the NWC5 Project located at 13755 Monterey Road in San Martin, Santa Clara County, California (PN 2748-01)

Dear Mr. Perry:

At your request, Live Oak Associates, Inc. (LOA), has conducted a habitat assessment for protected bumble bees and woodland woollythreads for the approximately 22.66-acre parcel (APN 779-09-061) located at 13755 Monterey Road in San Martin, Santa Clara County, California. This habitat assessment will satisfy the County's requirements in their *Additional Information Letter* dated October 17, 2022.

LOA plant ecologist Arren Allegretti and wildlife ecologist Robert Shields conducted a habitat assessment for woodland woollythreads and protected bumble bees on November 9, 2022.

Habitat Description

The site mainly consisted of disked ruderal fields dominated by non-native weedy vegetation, including, but not limited to wild oats (*Avena* spp.), non-native bromes (*Bromus* spp.), yellow star thistle (*Centaurea solstitialis*), bindweed (*Convolvulus arvensis*), and short pod mustard (*Hirschfeldia incana*) were commonly scattered throughout the site. A grove of coast live oaks (*Quercus agrifolia*) occurred in the southern half of the site. Several Eucalyptus trees (*Eucalyptus* spp.), as well as valley oak (*Quercus lobata*), California incense cedar (*Calocedrus decurrens*), and black walnut (*Juglans nigra*) also occurred on the site. Very sparse native shrubs were also observed on the site, including coyote bush (*Baccharis pilularis*) and toyon (*Heteromeles arbutifolia*). A remnant Christmas tree farm consisting of pines (*Pinus* spp.) and Douglas fir (*Pseudotsuga menziesii*) occurred in the northeastern section of the property.

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Habitat Assessment for Woodland Woollythreads. A California Natural Diversity Database (CNDDDB) record from 1901 exists for this species. Although the center of the proximity polygon is approximately a half-mile to the southeast of the site, this record is generally mapped to “In Vicinity of San Martin”. No other woodland woollythreads occur within a mile of the site. This species often occurs on serpentine soils in openings of broadleaved upland forests, chaparral, cismontane woodland, north coast coniferous forests, and valley and foothill grasslands. Onsite habitats were assessed by Dr. Allegretti for their suitability to support woodland woollythreads (*Monolopia gracilens*). Habitats on the site were found to not be suitable for the woodland woollythreads. Specifically, the disked ruderal fields and grove of coast live oak do not serve as habitat for this species.

Habitat Assessment for Protected Bumble Bees. A CNDDDB record from 1959 exists for the crotch bumble bee. Although the center of the proximity polygon is approximately a half-mile to the southeast of the site, this record is generally mapped to “In Vicinity of San Martin”. No other protected bumble bee records occur within a mile of the site. Habitat within and adjacent to the site were assessed by Mr. Shields for its suitability to support protected bumble bees, specifically, crotch bumble bee (*Bombus crotchii*). Colony locations of this species occur in burrows, hollow logs, and cavities of human-made and/or natural structures and preferred flowering species preferred for nectar collection include, but is not limited to, milkweeds (*Asclepia* spp.), lupines (*Lupinus* spp.), and pincushions (*Chaenactis*). Sufficient flowering species preferred for nectar collection were absent from the site. The site was examined for potential colony locations, including the ground squirrel burrows that occurred throughout the disked fields. Although root structures of some oak trees onsite could support a colony of this species, the lack of sufficient food sources within and adjacent to the site make it highly unlikely for a colony to occur on the site. The habitat quality on the site and adjacent to the site for protected bumble bees was very marginal and the site is not expected to support colonies of this species.

Conclusions. We conclude that woodland woollythreads and protected bumble bee colonies are absent from the site. Therefore, no additional surveys for these species are necessary for the site.

If you have any questions or concerns regarding this letter report, please contact me at (408) 281-5889 or Rick Hopkins at (408) 281-5885 at your convenience.

Sincerely,

A handwritten signature in cursive script that reads "Katrina Krakow".

Katrina Krakow, M.S.
Senior Project Manager
Staff Ecologist