



Kevin Merk Associates, LLC | P.O. Box 318, San Luis Obispo, CA 93406 | 805-748-5837

April 21, 2021

Mr. Austin Connella  
SLOCAL Farms  
7731 Suey Creek Road  
Santa Maria, California 93433

**Subject: Supplemental Biological Resources Information for the SLOCAL Farms Cannabis Cultivation Project at 2155 South Thompson Avenue, Nipomo, San Luis Obispo County, California**

Dear Mr. Connella:

At your request, Kevin Merk Associates, LLC (KMA) is providing supplemental information as it relates to special status native bumble bees that could potentially occur on or near the project site. The following information is intended to supplement our 2020 Biological Resources Assessment (BRA) prepared for the project, and is being provided to assist the County of San Luis Obispo with their environmental review process.

### **Regulatory Background and Species Accounts**

In late 2018, a petition to list four species of bumble bee as endangered was received by the California Fish and Game Commission, and the California Department of Fish and Wildlife (CDFW) was tasked with evaluating available scientific information to determine if listing was warranted. The four bumble bee species are as follows: Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*). Through the CDFW's Evaluation Report completed in April 2019, the California Fish and Game Commission voted 3-1 in June 2019 that the four species may be warranted for listing as threatened or endangered under the California Endangered Species Act (CESA). During the approximately one-year review period, the four bumble bee species were identified as candidate species as defined by Section 2068 of the Fish and Game Code, and thereby are afforded all legal protections under CESA consistent with listing as endangered. During this time a lawsuit was filed by an agricultural industry coalition where a Sacramento Superior Court judge ruled that insects including bees were not eligible for protection under CESA. Currently there are no insects listed as threatened or endangered under CESA, but since the litigation is ongoing, the four species are still identified as special status.

Although no records of these four species were identified in the vicinity of the project area during our query of the California Natural Diversity Database (CNDDB) conducted as part of our BRA analysis, two of these species, the Crotch bumble bee and western bumble bee, historically occurred in the San Luis Obispo County area. Given the four species are candidates for listing as threatened or endangered under CESA, we are providing further analysis as to the potential for these species to occur onsite and an assessment whether they could be adversely affected by project activities.

The Crotch bumble bee occurs primarily in California, and historically was common throughout grasslands and shrublands in southern and central California especially hot and dry areas away from the coast. Its distribution was centered in the Central Valley, and it declined significantly due to habitat loss and degradation from extensive agriculture. Urbanization, an increase in toxins, disease, competition and climate change also contributed to declines throughout its range. They are generalist foragers and have been observed visiting a variety of flowering plants. The Crotch bumble bee has a short tongue, and forages on open flowers with short corollas, such as plants in the families Fabaceae, Lamiaceae, and Asclepiadaceae. Food plants include milkweed, lupine, phacelia, sage, clarkia, poppy, and buckwheat. They gather pollen from a wide variety of flowering plants, and are important pollinators of many agricultural crops. They are active above ground from late-February to late-October, with activity peaking in spring and summer. They become inactive in winter using underground nests or in soft, disturbed soil or leaf litter. San Luis Obispo County is considered to be within the current geographic range of the species, and therefore, could potentially occur onsite.

Franklin's bumble bee has a highly restricted range in the northwest corner of California extending into southern Oregon. No records were identified of any occurrences of this species in the region in which the project is located. As such, it is not expected to occur on the project site or be affected by project-related activities.

Suckley cuckoo bumble bee historically was known to occur from the Pacific Coast east to Nebraska and from New Mexico north to Alaska. It is generally absent from the Great Basin. It has a restricted range in California, limited to only a few records in the Klamath Mountain region in the northern part of the state. It is a parasitic bee and reproduces by overtaking the nests of western bumble bees. As such, population declines for this species are directly tied to those of the western bumble bee. Given its historically restricted range to northwestern California and no records of it occurring in the vicinity of the project area, this species is not expected to occur on the project site or be affected by project activities.

The western bumble bee was historically known to occur from British Columbia to central California, east to South Dakota, and south to Arizona and New Mexico. It has experienced significant decline throughout its range. Maps provided in the CDFW Evaluation Report show the western bumble bee's historic southwestern limits were generally in the south Central Coast region. Because the site is near the limits of the species range, it may have historically been rare in this area even before it experienced range-wide decline. In California, it is now mostly restricted to high meadows of the Sierra Nevada Mountain Range and northern coastal grasslands. The CNDDDB reported only historic observation records in the San Luis Obispo area and none were identified from the project vicinity. The current range of the species is not considered to include areas southwest of Lake Tahoe. The western bumble bee occurs in areas with abundant floral resources that are in bloom during their flight period (i.e., spring, summer and fall). They are generalist foragers that do not depend on specific host plants. In addition to native plants, they are found on agricultural crops such as tomatoes, peppers, cranberries, alfalfa, avocado, apples, cherries, blackberries, and blueberries. They have nests underground in cavities or burrows. Colonies contain one queen, female workers, larvae, and during the appropriate season, male and female reproductive members. Only females survive the winter and establish new colonies the following spring. While little is known about the overwintering

sites, it is expected that they occur in friable soils or under plant (shrub) litter or debris. Given their limited range in California, they are unlikely to occur in the project area and be affected by project-related activities.

### **Impact Analysis and Recommended Mitigation**

The project site is located in the flat to gently rolling grasslands north of the Santa Maria Valley, in an area that has been grazed by livestock and farmed for various crops. The study area developed for the project contains existing ranch/farm buildings and associated developed areas, grazed annual grassland, and an agricultural field that has been in cultivation for many years. The proposed cultivation sites are located on annual grasslands and a regularly disturbed agricultural field. The regular cycle of disturbance associated with the farming operations onsite removes any suitable nesting sites for bumble bee colonies, and would also remove suitable overwintering sites for the queens. Depending on the particular crop, pollen and nectar sources may be present on the agricultural field during the spring and summer flight period. Due to the limited species diversity in the heavily grazed annual grassland habitat, this part of the site is expected to provide marginally suitable habitat for any native bee.

The proposed project as detailed in the 2020 BRA would construct cannabis cultivation and processing facilities (including the conversion of existing ranch buildings into cannabis curation, processing and packaging). Project activities would be sited in annual grassland, disturbed/ruderal, and agricultural areas of the site. Because the Crotch bumble bee and western bumble bee are known to have occurred historically in the general area, and given the extensive grassland and scrub habitats in the region, it is possible that individuals (particularly of the Crotch bumble bee, which is still known to occur in this area) could be present on the project site. They could occur in offsite habitats and fly over and potentially forage on or adjacent to the proposed project area. As stated above, the ongoing and historic surface disturbance from agricultural operations onsite would remove nesting and overwintering habitat of the western bumble bee and Crotch bumble bee from the proposed project area. Given the current land uses on the project site, it is unlikely that these two species could nest or overwinter in the proposed cultivation area, but grazed grassland areas or the agricultural crop could potentially contain individuals foraging onsite at the time project activities commence. To ensure that project activities avoid impacts on the Crotch bumble bee and western bumble bee, the following measures are recommended:

#### **Pre-construction surveys for Crotch bumble bee (CBB) and western bumble bee**

**(WBB).** The following actions shall be undertaken to avoid and minimize potential impacts on CBB and WBB:

- a. Pre-construction Survey - The applicant shall retain a County-qualified biologist to conduct pre-construction survey(s) for CBB/WBB within suitable habitat (i.e., grassland and agricultural areas containing potential food resources and small mammal burrows) on the project site. The survey(s) can be conducted over an extended period of time to document and establish the presence of the bumble bees within the areas of disturbance.
- b. CBB/WBB Take Avoidance - If the survey(s) establish the presence of CBB or WBB within the areas of disturbance, the applicant shall retain the services of a qualified biologist to prepare a Biological Resources Management Plan (Management Plan)

for the review and approval of the Planning Department, in consultation with CDFW. The Management Plan shall include at least the following:

i. Avoidance measures to include a minimum 50-foot no-disturbance buffer from the documented location of CBB or WBB to avoid take and potentially significant impacts.

ii. If suitable habitat is present and ground-disturbing activities will occur during the overwintering period (October through February), the applicant, in coordination with the Planning Department, shall consult with CDFW to identify specific measures to be undertaken to avoid take as defined by the California Endangered Species Act.

iii. Take Authorization - If CBB or WBB are detected prior to, or during project implementation, the applicant shall consult with CDFW to obtain applicable take authorization if their locations cannot be avoided as described above.

## References

Frankie, G.W., R.W. Thorp, R.E. Coville, and B. Ertter. 2014. California Bees & Blooms: A Guide for Gardeners and Naturalists. Heyday Berkeley, California and California Native Plant Society, Sacramento, California.

Koch, J., J. Strange and P. Williams. 2012. Bumble Bees of the Western United States. U.S. Department of Agriculture - Forest Service and the Pollinator Partnership. Washington, DC.

California Department of Fish and Wildlife. 2019. Evaluation of the Petition from the Xerces Society, Defenders of Wildlife, and the Center for Food Safety to List Four Species of Bumble Bees as Endangered Under the California Endangered Species Act.

Xerces Society for Invertebrate Conservation, Defenders of Wildlife and Center for Food Safety. 2018. A Petition to the State of California Fish and Game Commission to List the Crotch bumble bee, Franklin's bumble bee, Suckley cuckoo bumble bee, and western bumble bee as Endangered under the California Endangered Species Act.



Thank you for the opportunity to provide environmental consulting services for this project. I trust the above information is sufficient for your reporting requirements at this time. If you have any questions regarding the above information, please contact me directly.

Sincerely,  
**Kevin Merk Associates, LLC**

A handwritten signature in blue ink that reads "Kevin Merk".

Kevin B. Merk  
Principal Biologist