



September 11, 2020

Annie Baek  
Artesia Acquisition Company, LLC  
811 North Catalina Avenue, Suite 1306  
Redondo Beach, CA 90277

Subject: Crotch Bumble Bee Visual Survey for the Industrial Self Storage/RV Parking at 3701 Pacific Place, Long Beach, California (LSA Project No. ISP1901)

Dear Ms. Baek:

This memorandum documents the results of a visual survey for Crotch bumble bee (*Bombus crotchii*) for the Industrial Self-Storage/RV Parking at 3701 Pacific Place, Long Beach, California. The survey was conducted on August 12, 2020. Primary active nesting for this species occurs March through July.

### Survey Area

The survey area is an old golf driving range that sits atop 10 feet of fill that is highly disturbed and has become dominated by nonnative vegetation and scattered native plants. The site was frequently used in the past for driving off-road vehicles. The vegetation is sparse and the dominant nonnative plant species growing in the Biological Study Area (BSA) are tumble pigweed (*Armaranthus albus*) and garland chrysanthemum (*Glebionis melitensis*). Other nonnative vegetation growing on site includes tocalote (*Centaurea melitensis*), Russian thistle (*Salsola tragus*), shortpod mustard (*Hirschfeldia incana*), flax-leaved horseweed (*Erigeron bonariensis*), and London rocket (*Sisymbrium irio*). Native plant species observed include mule fat (*Baccharis salicifolia* ssp. *salicifolia*), common horseweed (*Erigeron canadensis*), and cliff malacothrix (*Malacothrix saxatilis* var. *tenuifolia*). The area has limited to poor resources for the Crotch bumble bee. A dispersing male, however, was seen foraging within the vegetation, but no nest was identified.

### Methods

The survey was conducted by LSA biologist Lonnie Rodriguez, who is familiar with the Crotch bumble bee and some of the associated insect species. Mr. Rodriguez, working under LSA biologist Dr. Stan Spencer, has assisted with focused surveys for the Crotch bumble bee. The project area was surveyed by walking through the remaining vegetation that had not been cleared for the incoming stockpile.

The survey consisted of two visits, 5 days apart, on August 12 and 17, 2020. The visual surveys were conducted under dry weather conditions with temperatures between 80 degrees Fahrenheit (°F) and 90°F degrees and sustained winds of less than 5 miles per hour (mph) as averaged over a 30-second period. The visual survey began at least 2 hours after sunrise and ended at least 4 hours before sunset. Surveys were conducted by walking transects through the vegetation within the project site. Survey transects were spaced approximately 30 feet apart or closer if needed for visual

coverage of potential nest sites. Surveys consisted of looking for potential nest sites (e.g., holes, crevices) as well as looking for Crotch bumble bees on the ground or in vegetation and following them to an active nest.

Survey times and weather conditions are summarized in Table A for each site visit.

**Table A: Crotch Bumble Bee Survey Times and Conditions**

Site Visit	Date	Start/End Times (24-hour)	Surveyors	Sky at Start/End	Wind at Start/End (mph)	Temperature at Start/End (°F)
1	8/12/2020	1207–1323	Lonnie Rodriguez	Clear/Clear	0–3 / 1–3	82 / 84
2	8/17/2020	0815–1200	Lonnie Rodriguez	Overcast/Clear	1–3 / 0–3	72 / 82

Source: Compiled by LSA Associates, Inc. (2020).

\*F = degrees Fahrenheit

mph = miles per hour

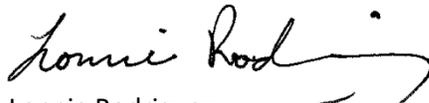
**Results**

Crotch bumble bee habitat on the project site is of poor quality due to high disturbance and low diversity of flowering plant species. No Crotch bumble bee nest was identified within the project area that was surveyed. However, a male Crotch bumble bee was detected foraging on a nonnative plant (flax-leaved horseweed) during the survey.

If you have any questions regarding this survey, please feel free to contact me at (949) 553-0666 or lonnie.rodriguez@lsa.net

Sincerely,

**LSA Associates, Inc.**

  
 Lonnie Rodriguez  
 Senior Biologist