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November 29, 2016

Subject: Paraiso Springs Resort – PLN040183 - Biological update

Dear John,

At your request I visited the Paraiso springs Resort property on Tuesday May 3, 2016 to walk the property and update my previous report from April, 2013 regarding special status species that may potentially occur on the property. Given the return of near average rainfall to the region in 2016 after 4 consecutive years of below average rainfall and the fact that it had been 3 years since the last update it was determined that it would be wise to do an update on the biological conditions of the property where new development is proposed to occur. This letter will serve as an updated supplement to my 2013 Biological survey report.

Early May is an excellent time of year to do botanical surveys as the vast majority of plants in the region have some overlap through this period with flowering and or seed or fruit production and are much easier to detect and confirm identity of than at other times of the year.

During my May 3rd visit, I walked through much of the property with particular emphasis placed on walking through the relatively undisturbed or undeveloped areas that are proposed for development with the rebuilding of the resort. While many common native annuals and perennials that had been previously identified onsite were found in great abundance there was only one relatively rare annual – Douglas's spineflower (*Chorizanthe douglasii* California rare- plant rank 4.3), that was found in a few sandy openings on the resort's hiking trail from up near the high point of the trail to just above any proposed development. I do not anticipate that any mitigation measures will be necessary for the Douglas's spineflower as it does not appear to be within any of the proposed development areas and its existence in open sandy areas will not be jeopardized by use of the hiking trail. Additionally, as a rare plant rank 4.3 it is the least significant ranking (Considered of limited distribution but not very rare in California) in that system and is not considered a significant species for CEQA consideration at this time. It has a state ranking of S4 indicating that it is apparently secure within California and Global ranking of G4 also considered secure. It was only evaluated because it is listed in the California Natural Diversity database and had been surveyed for in previous assessments of the property and not found.

Additionally, a special status lizard species – the Coast horned lizard (*Phrynosoma blainvillii* – California Species of Special Concern) was found in 3 separate locations; also along the hiking loop but also in the area of Indian Valley of which portions are slated for development. No other species of plant or animal (Special status or otherwise) that was not documented in the 2013 report was found during my survey. Other than the recommendations in this letter for Douglas's spineflower and the Coast Horned lizard, no other measures are warranted or recommended.

As mentioned in previous survey results the coast horned lizard is rarely abundant in any one area even in prime habitat conditions, but it is possible to predict presence in such habitat. Multiple surveys between 2005 and 2013 failed to detect the presence of the lizard in any portion of the Paraiso Springs property despite the high-quality habitat in the western and northern portions of the property. This visit produced different results. May is an active period for coast horned lizards as they are in breeding mode and warmer weather brings them out of underground refugia in search of food and mates. The three lizards seen were all good size adults and two of them were found within a short distance of each other on the upper area of

the hiking trail. These two would not be impacted by any of the development plans, however the adult coast horned lizard found in the development impact area of Indian Valley could potentially be impacted by development activity. Mitigation measures to avoid and decrease impacts to the lizard are listed below.



**Conduct Focused Surveys.** Prior to grading, focused surveys shall be done by a qualified biologist for Coast horned lizards. These surveys shall be conducted in the proposed development site of the area known as Indian Valley (The only area of suitable habitat proposed for development where the lizard was found during this survey). Any lizards located during this survey should be safely removed from the disturbance area and translocated to other suitable habitat determined by the qualified biologist (per the previously approved translocation program below). If it is determined that Coast horned lizards are not present within the proposed development site, then no further mitigation is necessary.

**Pre-construction worker training.** The equipment operators shall be informed of the species' presence and provided with pictures and information about their natural history to help avoid impacts to this species to the maximum extent possible. As part of the environmental training, contractors and heavy equipment operators shall be provided with photographs of the Coast horned lizard to identify them, and to avoid harming them during construction.

**Implement Translocation Program.** If Coast Horned Lizards are found onsite, a capture and relocation program shall be implemented. Prior to implementation of the relocation program, the program shall be subject to approval of the Director of the Monterey County Resource Management Agency. A relocation program shall be prepared to include a detailed methodology for locating, capturing, and translocating individuals prior to construction. The program shall identify a suitable location for relocation of the lizard prior to capture. A qualified biologist with a current scientific collection permit shall be required for handling Coast horned lizards. The adopted relocation program shall be implemented.

Implementation of these measures will reduce potential impacts to a less than significant level

Pat Regan – Consulting Biologist



## BLAINVILLE'S HORNED LIZARD

*Phrynosoma blainvillii*

Family: PHRYNOSOMATIDAE Order: SQUAMATA Class: REPTILIA

R029

Written by: S. Morey Reviewed by: T. Papenfuss Edited by: R. Duke, D. Alley

Updated by: CWHR Program Staff, March 2000 DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Blainville's horned lizard is uncommon to common in suitable habitat. Occurs in valley- foothill hardwood, conifer and riparian habitats, as well as in pine-cypress, juniper and annual grassland habitats. Occurs in the Sierra Nevada foothills from Butte Co. to Kern Co. and throughout the central and southern California coast. Its elevational range extends up to 1200 m (4000 ft.) in the Sierra Nevada foothills and up to 1800 m (6000 ft.) in the mountains of southern California.

### **SPECIFIC HABITAT REQUIREMENTS**

**Feeding:** Horned lizards forage on the ground in open areas, usually between shrubs and often near ant nests. Pianka and Parker (1975) noted that this species, like other horned lizards, consumes many ants. Small beetles are taken in large numbers when especially abundant. Stebbins (1954) reported other insects as food items, including wasps, grasshoppers, flies, and caterpillars.

**Cover:** This species relies on camouflage for protection and often hesitates to move at the approach of a predator. Horned lizards often bask in the early morning on the ground or on elevated objects such as low boulders or rocks. Predators and extreme heat are avoided by horned lizards by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed into the soil under surface objects such as logs or rocks, in mammal burrows, or in crevices.

**Reproduction:** Little is known about habitat requirements for breeding and egg-laying. Males may use elevated "viewing platforms" such as cow dung (Tollestrup 1981) to locate females during the reproductive season. Eggs are apparently laid in nests constructed by females in loose soil.

**Water:** No information on water requirements. Does not require permanent water.

**Pattern:** Inhabits open country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats. Found chiefly below 600 m (2000 ft.) in the north and 900 m (3000 ft.) in the south.

### **SPECIES LIFE HISTORY**

**Activity Patterns:** Being a diurnal lizard, most activity occurs during the middle of the day in the spring and fall but is restricted to morning and late afternoon during mid-summer. Nocturnal activity may occur during particularly warm periods. Fall and winter are inactive periods in most areas.

**Seasonal Movements/Migration:** Pronounced seasonal movement or migration has not been reported. Habitat requirements, such as sites for courtship and display, egg-laying, and hibernation are apparently found within the normal area of activity.

**Home Range:** Little is known about home range. In Arizona, some individuals of a related horned lizard species, (*P. Solare*) established well-defined home ranges, while some wandered without establishing one. Males used a larger area than females; the mean maximum distance between capture points was 30 m (98 ft.) for males and 15 m (49 ft.) for females (Baharav 1975).

Territory: Horned lizards generally lack territorial defense (Lynn 1965, Stamps 1977), but combat between males (Whifford and Whifford 1973) and over female feeding territories (Nussbaum et al. 1983) has been reported.

Reproduction: The reproductive season for the horned lizard varies from year to year and geographically depending on local conditions. Pianka and Parker (1975) reported that egg-laying in southern California extends from late May through June with a mean clutch size of 13 eggs. Stebbins (1954) reported a range of 6 to 16 eggs. Hatching probably occurs after two months. Blainville's horned lizard is apparently unique among lizards in using a belly-to-belly position during copulation (Tollestrup 1981).

Niche: The spiny armor and aggressive behavior towards potential predators exhibited by horned lizards confer only partial immunity from predators. Leopard lizards, sidewinders, striped whip snakes and other snakes, loggerhead shrikes, and hawks have all been reported as predators of horned lizards. After a review of the genus *Phrynosoma*, Pianka and Parker (1975) concluded that because of their rather specialized diets, most horned lizards probably experience little competition for food from other coexisting lizards.

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R029

Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.

Baharav, D. 1975. Movement of the horned lizard *Phrynosoma solare*. *Copeia* 1975:649-657



Douglas's spineflower *Chorizanthe douglasii* (Rare plant rank 4.3)  
Douglas's spineflower is a small dark pink flowered annual endemic to California and only in San Benito, Monterey and San Luis Obispo Counties in Chaparral, Cismontane woodland, Coastal scrub and Lower montane coniferous forest in sandy or gravelly soil. It blooms from April to July.

This plant was seen frequently on the hiking trail/former fire break road coming down from the high point to just above where some development

was previously proposed. No plants were found in areas currently proposed for development.