

February 21, 2019  
(2019-023)

Mr. Brent Rieger, BRC  
c/o Mr. Mark Stanson  
SD STANSON Company  
1000 New York Street, Suite 104  
Redlands, CA 92374

**Subject: Results of a San Bernardino Kangaroo Rat Habitat Assessment conducted at the Approximately 5-acre Property (APN 0168-041-50 and 0168-041-13), in the City of Redlands, California**

Dear Mr. Rieger:

This letter report presents the results of a San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR) habitat assessment conducted by ECORP Consulting, Inc (ECORP) at the request of SD STANSON Company at an approximately 5-acre property (project site) in Redlands, San Bernardino County, California. Included in this letter report is a site description, description of the methods used to conduct the survey, and a discussion of the survey results.

### **Project Description and Location**

The project site consists of an approximately 5-acre property (Assessor's Parcel Number 0168-041-50 and 0168-041-13) located on Sessums Drive, east of Dearborn Street and West of Wabash Avenue. in the City of Redlands, San Bernardino County, California. The project site is bounded by Sessums Drive to the north, undeveloped land and industrial development to the east, undeveloped land and the Redlands Sports Complex to the south, and undeveloped land to the west. The project site is located within the northeast portion of the U.S. Geological Survey (USGS) Redlands 7.5-minute topographic quadrangle in Section 13, Township 1 South, Range 3 West. The elevation on the project site is approximately 1,550 feet above mean sea level. The project site occurs outside USFWS designated critical habitat for SBKR (USFWS 2008).

### **San Bernardino Kangaroo Rat Natural History and Occurrence in the Project Area**

SBKR is a federally listed (endangered) species (USFWS 1998a and 1998b). SBKR occur primarily in the pioneer and intermediate phases of Riversidean alluvial sage scrub (RAFSS), a plant community with coastal sage scrub and chaparral elements on alluvial terraces and braided river channels in southern California (McKernan 1997). SBKR also can occur in Riversidean sage scrub (RSS), abandoned agricultural fields, and orchards, but usually only when such habitats are near suitable

natural habitats. SBKR abundance is greatest where there is sandy substrate with low to moderate perennial vegetative cover (less than 30 to 50 percent), and without a dense cover of non-native annual grasses (McKernan 1997; MEC 2000). Root's (2008a and 2008b) extensive analysis of SBKR occurrence in the Santa Ana River Woolly Star Preserve Area found that SBKR occupancy is negatively correlated with a dense cover of non-native grasses and areas where boulders and rocks dominate the surface, and positively correlated with sandy sparse ground cover and the perennial shrub scalebroom (*Lepidospartum squamatum*). SBKR generally occur in habitats associated with active stream channels.

The SBKR is known to be abundant within the Santa Ana River (SAR) wash system to the north, and undoubtedly occurred more broadly in the general area of the project site historically. However, over time, various types of development north and south of the property have restricted the populations of this species to small, isolated, and less disturbed parcels of land. Most of these parcels are located away from the SAR wash system and now likely lack the animal. Nonetheless, SBKR have been trapped within 1,250 feet to the west (S.J. Montgomery, personal field notes). Thus, there is a potential for SBKR to occur on the project site.

## Methods

The SBKR habitat assessment was conducted by ECORP Senior Biologist, Phillip Wasz (TE-43597A-2.1) on February 6, 2019, from the hours of 0900-1100, during suitable weather conditions. There is no official state or federal protocol for SBKR habitat assessments, but the permitted biologist used his knowledge of the species habitat requirements and natural history to assess the project site's potential to support the species. During the habitat assessment the project site was evaluated for habitat conditions potentially suitable for SBKR and to determine if trapping of the site is warranted. During the survey numerous transects were walked across the property in search of clear evidence of kangaroo rats (e.g., tracks, tail-drag marks, scat, obvious burrows). Transects were walked in a north/south fashion and spaced approximately 10-25 feet apart to achieve 100% visual coverage of the project site, and the biologist also conducted a focused analysis of all areas exhibiting potentially suitable habitat for SBKR. Locations with diagnostic kangaroo rat sign were marked with a global positioning system (GPS) receiver and flagged as potential trapping areas.

## Results

### Habitat Conditions

The property currently consists of recently graded/grubbed land and was almost completely devoid of vegetation. The little vegetation remaining on the project site was typical of the disturbed/graded condition and consisted mostly of remnant non-native forbs, including Russian thistle (*Salsola tragus*), black mustard (*Brassica nigra*), fiddleneck (*Amsinckia menziesii*), summer mustard (*Hirschfeldia incana*), and common dandelion (*Taraxacum officinale* ssp. *officinale*). Soil on the site consists of Soboba gravelly loamy (NRCS 2019). Representative photographs of the project site can be found in Attachment A.

**Potential for SBKR on the Project Site**

No sign of small mammal activity was observed on the project site and no kangaroo rat sign (active burrows, scat, tail drag marks) were observed on the project site at the time of the survey. The absence kangaroo rat sign and small mammal activity during the habitat assessment indicates that the potential for occurrence of SBKR on the property is extremely low and that the species is likely absent from the project site. Additionally, the project site was surrounded by a chain-link fence which also had small mammal exclusion fence attached to the base of the chain-link. The small mammal exclusion fence consisted of small diameter mesh wire fence that extended above ground for approximately 24 inches and was also buried under ground for approximately 18 inches. Therefore, the absence of suitable SBKR habitat on the property and the presence of the small mammal exclusion fence make the likelihood of future colonization of the project site by SBKR very low. Based on these findings and the lack of suitable habitat on the project, it was determined by the biologist that that a protocol-level trapping survey was not recommended. If conditions on the project site change or there is an extended gap (>1 year) between the when the survey and construction of the project site, the survey may need to be repeated.

Thank you for the opportunity to work on your project. If you have any questions regarding the contents of this letter report, please contact me at (909) 307-0046/[pwasz@ecorpconsulting.com](mailto:pwasz@ecorpconsulting.com).

*CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief.*

SIGNED:   
Phillip Wasz  
Senior Wildlife Biologist  
ECORP Consulting, Inc.  
215 N. 5<sup>th</sup> Street  
Redlands, CA 92374

DATE: February 21, 2019

**Attachments:**

Attachment A: Representative Photographs

## Literature Cited

- McKernan, R.L. 1997. The status and known distribution of the San Bernardino kangaroo rat (*Dipodomys merriami parvus*): field surveys conducted between 1987 and 1996. Prepared for the U.S. Fish and Wildlife Service, Carlsbad, California.
- MEC Analytical Systems, Inc. 2000. Final report of findings for the San Bernardino kangaroo rat and Habitat relationships 1999 field study for the Santa Ana River alluvial fan, San Bernardino County, California. Report prepared for the U.S. Army Corps of Engineers, Los Angeles District.
- Root. 2008a. 2005-2007 San Bernardino Kangaroo Rat Mark-Recapture Survey Analyses from the Woolly Star Preserve Area, San Bernardino County, California. Report prepared for the U.S. Army Corps of Engineers, Los Angeles District. 87 pp.
- Root. 2008b. 2006-2007 San Bernardino kangaroo rat occupancy survey analyses from the Woolly Star Preserve area, San Bernardino County, California. Report prepared for the U.S. Army Corps of Engineers, Los Angeles District. 153 pp.
- Natural Resources Conservation Service. (NRCS) 2019. "Web Soil Survey" from <http://websoilsurvey.nrcs.usda.gov>. Accessed: February 2019.
- U.S. Fish and Wildlife Service (USFWS). 2008. Revised critical habitat for the San Bernardino kangaroo rat (*Dipodomys merriami parvus*); Final Rule. Fed. Reg. 73:61936-62002.
- USFWS. 1998a. Emergency rule to list the San Bernardino kangaroo rat, San Bernardino and Riverside Counties, as endangered. Fed. Reg. 63:3835-38431.
- USFWS. 1998b. Final rule to list the San Bernardino kangaroo rat as endangered. Fed. Reg. 63:51005-51017.

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**ATTACHMENT A**

Representative Project Site Photographs



Photo 1: North end of the project site looking south.



Photo 2: Middle of project site looking south.



Photo 3: South end of the project site looking north.



Photo 4: Recently installed small mammal exclusion fence.