Appendix I

San Bernardino Kangaroo Rat Trapping
Focused Survey Report

Casa Loma Siphon No. 1 and San Jacinto Pipeline Project

San Bernardino Kangaroo Rat Trapping Focused Survey Report

prepared for

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1 Introduction

Rincon Consultants, Inc. (Rincon) herein presents the results of a focused small mammal live-trapping effort conducted on behalf of The Metropolitan Water District of Southern California (Metropolitan) for the Casa Loma Siphon No. 1 and San Jacinto Pipeline Project (project). Rincon completed the survey to determine the presence/absence of the federally listed endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR) on or near the project site prior to project activities. The project location is within the current range of the species; therefore, a survey was conducted to determine if SBKR was present within the project site and, if documented, to then determine if burrows within the project footprint were being used by SBKR.

The project site is located near the city of San Jacinto, in unincorporated Riverside County, California (Figure 1 and Figure 2). During storm activity in early 2023, accelerated flows within the San Jacinto River exposed an approximate 200-foot-long segment of one of Metropolitan's Casa Loma Siphon No. 1 and San Jacinto Pipelines. In response to the emergency, Metropolitan installed protective measures to achieve temporary protection of the pipelines until a permanent solution could be developed. Metropolitan is now proposing a permanent engineering solution within the approximate 20-acre project site to properly cover the three existing pipelines (Colorado River Aqueduct [CRA] Siphon, San Jacinto Pipeline and Casa Loma Canal Siphon).

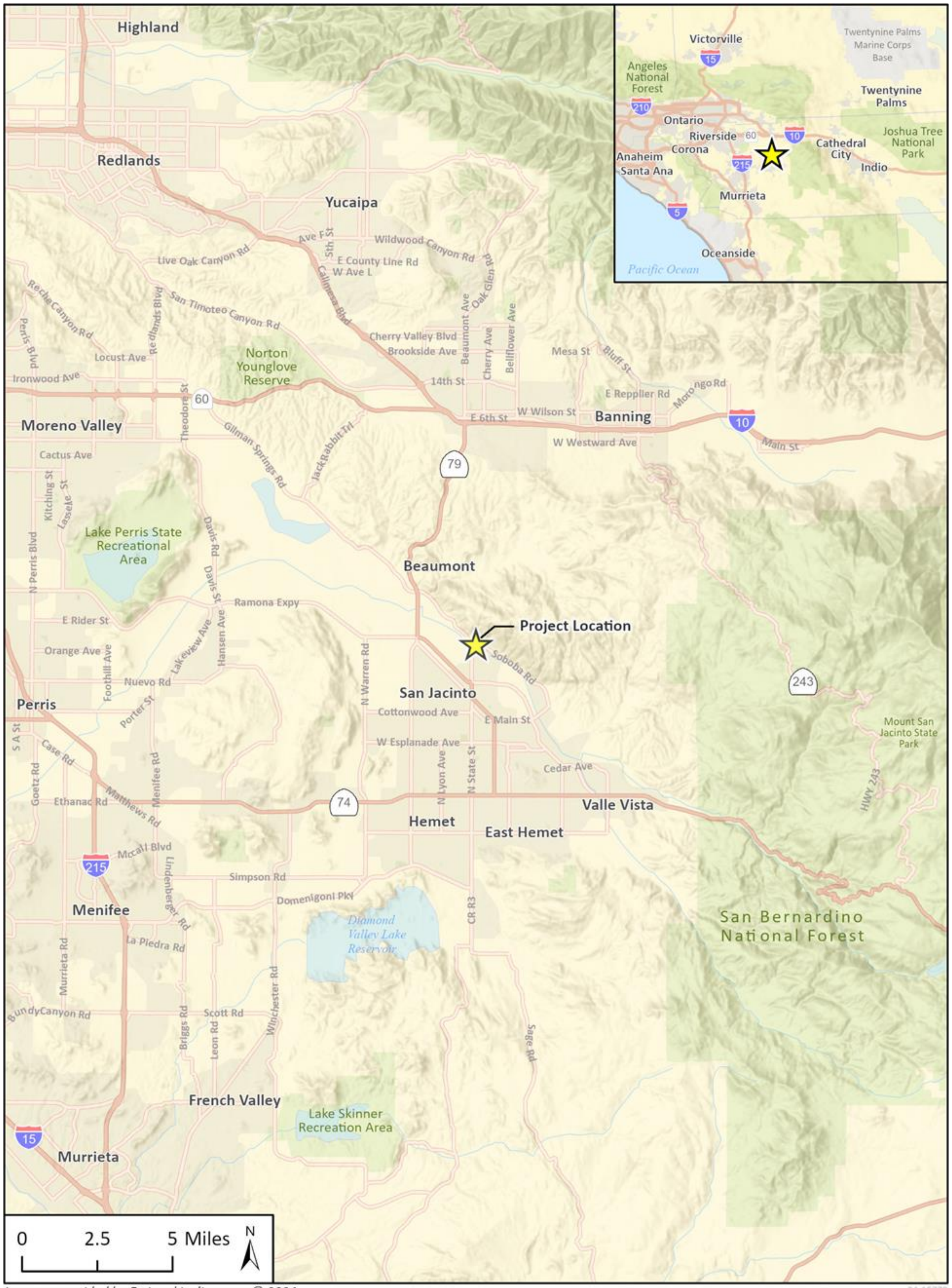
All surveys for the SBKR were conducted by Rincon biologist Kelly Rios under USFWS permit number TE-018909-6.

2 Methodology

Notification to commence protocol trapping surveys for SBKR was submitted to the United States Fish and Wildlife (USFWS) Carlsbad Field Office via email on May 15, 2024, by Kelly Rios. Trapping efforts were led by Rincon Biologist Kelly Rios (Permit # TE-018909-6) with assistance from Rincon biologist, Nick Julier. Focused surveys for SBKR were conducted according to established U.S. Fish and Wildlife USFWS protocols for 10(a)(1)(A) permit specifications. The current protocol requires five consecutive nights of trapping, conducted when the animal is active aboveground at night, and preferably during a new moon phase. One trapping session was conducted from June 10 - 15, 2024.

A total of 43 twelve-inch Sherman live traps were placed in three distinct transects; one located west of the dirt access road and two in lower sand terraces of the San Jacinto River. The traps were placed in areas of suitable habitat containing sandy soils, suitable vegetation, and nearby burrow locations. Areas lacking vegetation and coverage along the sand banks were identified, as well as non-native grassland within the northeast portion of the site. No suitable burrows or habitat were observed in these locations; therefore, traps were not placed in these areas. Trapping was conducted on five consecutive nights for a total of 215 trap nights. Each trap was baited with a mixture of birdseed that was placed at the back of the traps. The traps were left in the same place for five nights. Traps were checked every morning, at which time any captured animals were identified and released at the point of capture. All animals were identified using field guides (Burt 1986; Hall 1981), recorded in a field notebook.

Figure 1 Regional Location of Project Site



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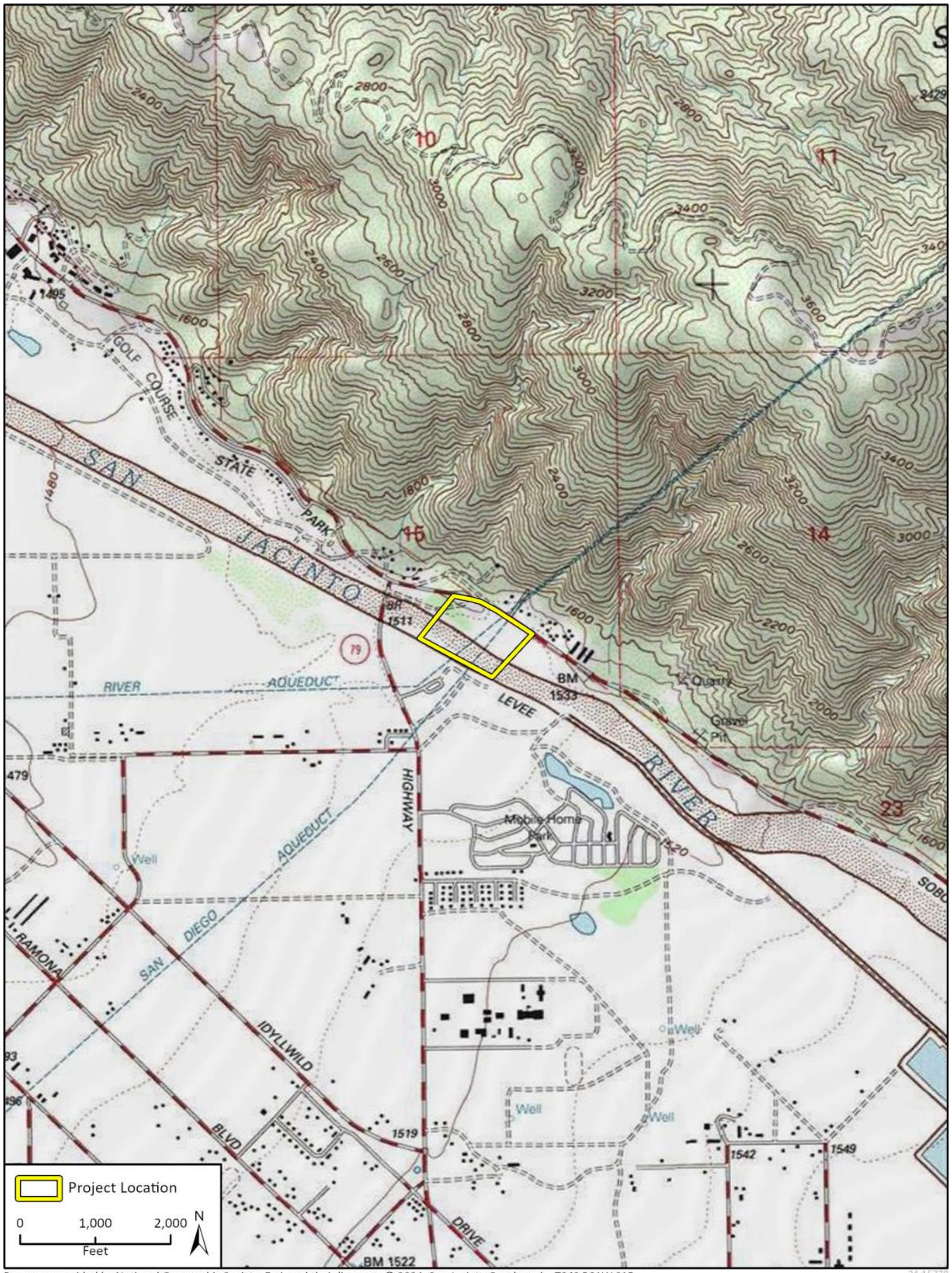
24-15778
Fig 1 Regional Location

Figure 2 Project Location on USGS 7.5-minute Topographic Quadrangle



Basemap provided by National Geographic Society, Esri, and their licensors © 2024. San Jacinto Quadrangle. T04S R01W S15
The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

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CRFig 2 Project Site Topo

3 Project Location and Environmental Setting

The project site is located within and adjacent to the San Jacinto River, between Soboba Road and State Street, near the city of San Jacinto, unincorporated Riverside County, California (Figure 1 and Figure 2). The site is depicted on the United States Geological Survey (USGS) *San Jacinto, California*, 7.5-minute topographic map within Township 4 South, Range 1 West, Section 15, San Bernardino Baseline and Meridian (33.820600°, 116.969914°). The project site is located within federally designated Critical Habitat for the SBKR.

The survey area contains Fremont cottonwood woodland, upland mustards, and fourwing saltbush scrub vegetation communities, as well as developed/disturbed land cover. The trapping survey focused on the Fremont cottonwood woodland, upland mustards, and fourwing saltbrush scrub vegetation communities. The topography of the project site is flat with an incline that drops into the wash from the brushland. The wash characteristics are a result of intermittent flow from the San Jacinto River.

Adjacent land use consists of Soboba Road and undeveloped arid hills further to the north. Agricultural land and residential communities occur to the south, west, and east of the project site.

4 Species Background

The SBKR is one of three subspecies of the Merriam's kangaroo rat (*Dipodomys merriami*). Merriam's kangaroo rat is a widespread species that can be found from the inland valleys to the deserts of southern California. The subspecies known as SBKR is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainages. Most of these systems have been historically altered because of flood control efforts and the increased use of river resources, including mining, off-road vehicle use, and road and housing development. This increased use of arid river resources has resulted in a reduction in both the amount and quality of habitat available for SBKR. The past habitat losses and potential losses prompted an emergency listing of SBKR as an endangered species (USFWS 1998a).

The SBKR is one of several kangaroo rat species in its range. The Dulzura kangaroo rat (*Dipodomys simulans*), the Pacific kangaroo rat (*Dipodomys agilis*), and the Stephens' kangaroo rat (*Dipodomys stephensi*) (SKR) can occur in areas also occupied by SBKR, but these other species have a wider habitat range. SBKR habitat is confined to primary and secondary alluvial fan sage scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs.

5 Survey Results and Discussion

Weather conditions during the trapping survey included morning temperatures ranging from 58-64 degrees Fahrenheit with clear skies. Night temperatures ranged from 81-88 degrees , between 6:00 to 7:30 p.m.

Table 1 summarizes the results from the 2024 trapping survey. A total of six small mammal species were trapped and include deer mouse (*Peromyscus maniculatus*), San Diego pocket mouse (*Chaetodipus fallax*), long-tailed pocket mouse (*Chaetodipus formosus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) and harvest mouse (*Reithrodontomys megalotis*). Of these species, the Los Angeles pocket mouse is a California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC). The two subspecies of San Diego pocket mouse (*C. fallax fallax* and *C. fallax pallidus*) are listed on the CDFW Special Animals list but are not designated as SSC. No SBKR, or kangaroo rats of any kind, were captured during the 5-night trapping survey.

Table 1 San Bernardino Kangaroo Rat Trapping Results

Trap Night	Deer Mouse (*Peromyscus maniculatus*)	San Diego pocket mouse (*Chaetodipus fallax*)	Long-tailed pocket mouse (*Chaetodipus formosus*)	Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)	Harvest mouse (*Reithrodontomys megalotis*)
1	7	-	3	-	1
2	6	-	3	-	3
3	13	-	3	1	1
4	11	1	2	-	-
5	7	-	8	-	3
Total	**44**	**1**	**19**	**1**	**8**

Wildlife activity was low to moderate, with most wildlife observed being avian species. Burrowing mammal species, including California ground squirrel (*Otospermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*), were also observed within the survey area.

6 Certification

I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Signed: Kelly Rios Date: July 15, 2024

Kelly Rios
Senior Biologist
TE-018909-6

7 References

Burt, W.H. 1986. A Field Guide to the Mammals in North American North of Mexico.

Houghton Mifflin Company, Boston, Massachusetts.

Hall, E.R. 1981. The Mammals of North America, Volumes I and II. John Wiley and Sons,

New York, New York.

United States Fish and Wildlife Service (USFWS). 1998. Emergency Rule to List the San Bernardino Kangaroo Rat, San Bernardino and Riverside Counties in Southern California, as Endangered. Vol. 63, No. 17, pp. 3835 – 3843.

USFWS. 2017. Native Endangered & Threatened Species Recovery 10(a)(1)(B) Permit TE-018909-5.

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Appendix A

Representative Transect Photographs

Photograph 1: Date: 6/17/24. Transect 1; facing west from dirt access road.

Photograph 2: Date: 6/17/24. Transect 2; facing southeast.

Photograph 3: Date: 6/17/24. Transect 3; facing southwest.