



# San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

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SPECIES SUMMARY

## Riparian brush rabbit *Sylvilagus bachmani riparius*

The riparian brush rabbit has limited coverage pursuant to the SJMSCP, as described in Section 5.2.4.23 of the SJMSCP.

The historic range of the riparian brush rabbit is believed to have extended along the San Joaquin River from Stanislaus County to the Delta region (Williams 1986). One of two presently known populations is found on the lower Stanislaus River in Caswell State Park (Williams 1986). Pursuant to recent studies (Williams 2000), a second population has been identified near Stewart Tract along the San Joaquin River and its tributaries. The habitat for this species apparently is the dense brush and nearby openings associated with the banks of the Stanislaus River and San Joaquin River. In 1985, the total population at Caswell was estimated at less than 100 individuals although this number may change with the recent discovery of a new population.

The riparian brush rabbit is considered the most sensitive mammal in California because of its susceptibility to floods, fire, disease, predations, human disturbance, and flood control activities. A census conducted during January 1993 found that the Caswell State Park population at that time was 213 to 312 individuals. The floods of January 1997 left 85 percent of Caswell State Park under 2-10 feet of water for more than two weeks. Visual surveys in March and April found some signs of the rabbit. Trapping surveys initiated in May 1997, after flood waters had completely receded, also resulted in a visual sighting, fresh rabbit tracks and other signs, but no rabbits were successfully trapped. While it is evident some number of rabbits survived the flood event, the current population size at Caswell State Park is unknown.

Unlike other rabbits, the riparian brush rabbit occupies riparian forests within the natural floodplains, which have an ample brushy understory in association with the forest, plus suitable upland areas for cover and retreat from annual floods. This habitat can be restored through a comprehensive program that strives to restore or reactivate ecological processes, functions, and habitat elements on a systematic basis.

Overall, the decline of the riparian brush rabbit has resulted from the destruction, fragmentation, and degradation of the San Joaquin Valley native riparian forest habitat within the rabbit's historic range, with less than 6% of the original habitat remaining. Furthermore, due to the fragmentation of suitable remaining habitat, the rabbit has no means of dispersing from Caswell State Park to other areas. A genetic comparison of the Caswell State Park and Stewart Tract populations which may shed light on the relationship between the two populations is pending.

Consistent with the USFWS's Draft San Joaquin Recovery Plan, the SJMSCP emphasizes the establishment of other viable populations within the species' historical range. Potential translocation sites exist on state and federal lands, and lands covered by federal plant, fish and/or wildlife habitat easements along or adjacent to several stretches of the Stanislaus and San Joaquin Rivers. This species would also benefit from flood protection measures, limits on wood cutting near occupation sites, retention of logs and limbs, and curtailment of livestock grazing, especially along several stretches of the Stanislaus River downstream from Caswell State Park.

INCIDENTAL TAKE MINIMIZATION MEASURES

### 5.2.4.23 Riparian Brush Rabbit

A. Occupied Habitat. Kill of individual riparian brush rabbits and Conversion of occupied habitat for the riparian brush rabbit is prohibited by the SJMSCP unless the provisions of SJMSCP Section 5.5.2.7 have been met. Full avoidance of the riparian brush rabbit is required in areas of known occupied riparian brush rabbit habitat in accordance with Section 5.5.9(I). Known occupied habitat for the riparian brush rabbit is: the vegetation types R, R2, R3, R4, R5, S, SG, D, W, W2, W3, W4, W5 and W9 (unlined) located within Caswell State Park and along the adjoining Stanislaus River; and surrounding Stewart Tract including Paradise Cut and the adjacent Union Pacific Railroad Company right-of-way on Stewart Tract, Old River adjacent to Stewart Tract, and the San Joaquin River as it bounds Stewart Tract. Additional populations of the riparian brush rabbit identified after the Effective Date of the SJMSCP Permits by the JPA or the Permitting Agencies shall become known occupied riparian brush rabbit habitat.

B. Potential Habitat. Conversion of Potential habitat for the riparian brush rabbit is prohibited by the SJMSCP unless: 1) the provisions of Paragraph C (below) apply; 2) the provisions of SJMSCP Section 5.5.2.7 have been met; or 3) a survey, conducted pursuant to the protocol established in Survey Methods for Riparian Brush Rabbits (by D.F. Williams and P.A. Kelly - San Joaquin Valley Endangered Species Recovery Planning Program) is undertaken and proves absence for this species. If absence is established by the survey, then the incidental take minimization measures for riparian habitat, established in SJMSCP Section 5.2.4.31 shall apply.

Potential riparian brush rabbit habitat is: the vegetation types R, R2, R3, R4, R5, S, SG, D, W, W2, W3, W4, W5 and W9 (unlined) located along the Stanislaus River downstream of Highway 99 to the junction with the San Joaquin River and riparian habitat along the San Joaquin River downstream of the mouth of the Stanislaus River north to and including Tom Paine Slough and Paradise Cut to the Southern Pacific railroad right-of-way.

C. Limited Take. Incidental Take of up to three acres of potential riparian brush rabbit habitat may occur pursuant to the SJMSCP for projects which meet all of the following criteria:

- A. SJMSCP Covered Activities excluding residential, commercial or industrial development and aggregate mining.
- B. Impact less than .25 acres of habitat on a per-project basis; and
- C. Result in no harm, injury, or harassment of individual brush rabbits