



# Surveys for the Least Bell's Vireo and Southwestern Willow Flycatcher at the San Luis Rey River

2002 Annual Summary

Prepared for:

**State of California  
Department of Transportation  
District 11  
San Diego, California**

U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY  
WESTERN ECOLOGICAL RESEARCH CENTER

# Surveys for the Least Bell's Vireo and Southwestern Willow Flycatcher at the San Luis Rey River

By Bonnie L. Peterson, Barbara E. Kus, and Mike J. Wellik

---

U.S. GEOLOGICAL SURVEY  
WESTERN ECOLOGICAL RESEARCH CENTER

2002 Annual Summary

Prepared for:

State of California  
Department of Transportation  
District 11  
San Diego, California

San Diego Field Station  
USGS Western Ecological Research Center  
5745 Kearny Villa Road, Suite M  
San Diego, CA 92123

Sacramento, California  
2002

U.S. DEPARTMENT OF THE INTERIOR  
GALE A. NORTON, SECRETARY

U.S. GEOLOGICAL SURVEY  
Charles G. Groat, Director

The use of firm, trade, or brand names in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

---

For additional information, contact:

Center Director  
Western Ecological Research Center  
U.S. Geological Survey  
7801 Folsom Blvd., Suite 101  
Sacramento, CA 95826

This report summarizes the results of least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) surveys conducted in 2002 along the San Luis Rey River in San Diego County, California. The primary objectives of this study were to determine the number and location of least Bells' vireo and southwestern willow flycatchers within the survey areas, and document reproductive status of the southwestern willow flycatcher.

### *Least Bell's Vireo*

The study area is a section of the San Luis Rey River between I-15 in the east and College Avenue in the west, including Live Oak Creek and Guajome Regional Park. The entire area was surveyed during each of two survey periods (April 15 - April 30 and May 15 - May 31). Surveys were conducted by Bonnie Peterson and Mike Wellik.

A total of 130 males were located during the surveys (Figures 1 and 2). Although it was not the intent of the surveys to determine breeding status of vireos, 49 males were confirmed paired and 81 were of unknown status. The population size in 2002 was comparable to that documented in 2001 during monitoring of the same area (Kus, unpublished data).

Ninety-five males and 30 females were observed well enough to determine banding status, and of those, 16 males and one female were banded (Table 1). Four of these vireos had been banded with a single metal band as nestlings in 2000 and were given complete band combinations in 2002. One additional male was banded for the first time in 2002.

### *Southwestern Willow Flycatcher*

The study area is a section of the San Luis Rey River between Guajome Regional Park to the east and the Oceanside Airport to the west, including Whelan Lake. The entire area was surveyed once during each of four survey periods (May 15 – May 31, June 1 – June 21, June 22 – July 11, July 12 – July 31). All territorial males located during the surveys were monitored for reproductive success. This area was surveyed and monitored by Mike Wellik and Jennifer Turnbull.

One transient, one single male and five pairs of southwestern willow flycatchers were located along the San Luis Rey River (Figures 2 and 3). The transient flycatcher was observed during the first survey period. The single male remained on its territory in June but was undetected in July. One male (single), one female (paired) and two individuals of unknown sex were captured and banded with individual color bands in 2002 (Table 2).

Nesting was confirmed for three of the five flycatcher pairs. Nests were located for two pairs immediately after or during fledging. One pair fledged at least one young,

and one egg did not hatch. Their nest was built in *Baccharis salicifolia* at 2.1 meters above the ground and was located in a marshy area 1.8 meters from open water. A second pair fledged at least two young, and one egg did not hatch. Their nest was built in *Salix goodingii* at 3.1 meters above the ground and was located 0.5 meters from open water. A third pair fledged at least one young from a nest that was not located. Two flycatcher pairs were suspected of nesting, but nests were not located. Based on their behavior, one pair was suspected of initiating a nest that later failed; a second pair appeared to progress to the nestling stage but no fledglings were observed.

**Table 1.** Banded Least Bell's Vireos at the San Luis Rey River in 2002.

Territory	Latitude	Longitude	Band Combo <sup>a</sup>	Band #	Sex	Age
C-06	33.25252	-117.29794	WHI/m: ?	-	Male	1+ Yrs.
C-05	33.25319	-117.2973	DKBL: PUR/m	2080-53600	Male	5 Yrs.
MC-06	33.25045	-117.28419	WHI: DKBL/m	2070-14886	Male	3 Yrs.
Cactus Jack	33.31237	-117.18903	PUR: DKBL/m	2140-39226	Male	2+ Yrs.
CalT-01 <sup>b</sup>	33.25445	-117.24698	LTPI: Mdb	2190-52365	Male	2 Yrs.
Chips	33.31312	-117.17872	BWST/m: DPDB	2080-53458	Male	6 Yrs.
Cowboy	33.30837	-117.20159	-: Mdb	-	Male	2 Yrs.
East Gird 2 <sup>b</sup>	33.31211	-117.1904	-: YEL/ Mdb	2190-52642	Male	2 Yrs.
Gatekeeper	33.31425	-117.18489	DPWH: DKBL/m	2070-14890	Male	4+ Yrs.
GCP Verdadero	33.27852	-117.22219	YEL/ Mdb: -	2190-52214	Male	3 Yrs.
Grumpier	33.29608	-117.21691	-: Mdb	-	Male	2 Yrs.
Loopy	33.27789	-117.22608	-: DKBL/ Mdb	2190-52451	Male	2 Yrs.
Pole South <sup>b</sup>	33.30892	-117.20106	DKPI: Mdb	2190-52605	Male	2 Yrs.
Spock	33.29783	-117.21492	? : LTPI/ m?	-	Male	1+ Yrs.
W. Gird 1 <sup>b</sup>	33.30981	-117.19641	PUR: Mdb	2190-52627	Male	2 Yrs.
West Gird 3	33.31047	-117.19385	DPWH/ Mdb: -	2190-52315	Male	3 Yrs.
Wipeout <sup>c</sup>	33.29587	-117.21675	PUWH: DKBL/ m	2140-39242	Male	1+ Yrs.
Little Tire	33.31198	-117.19322	WHI: Mdb	2190-52350	Female	2 Yrs.

<sup>a</sup>The colon (:) separates the left leg from the right (left:right).

The slash (/) separates the top band from the lower band when two bands occur on the same leg.

Color codes: m=metal Federal band; Mdb=dark blue anodized Federal band; WHI=white; DKBL=dark blue; PUR=purple; LTPI=light pink; BWST=dark blue-white striped; DPDB=dark pink-dark blue split; YEL=yellow; DKPI=dark pink; DPWH=dark pink-white split; PUWH=purple-white split.

<sup>b</sup>Vireos banded as nestlings with a single metal band and were given a full band combination in 2002.

<sup>c</sup>Vireos banded in 2002.

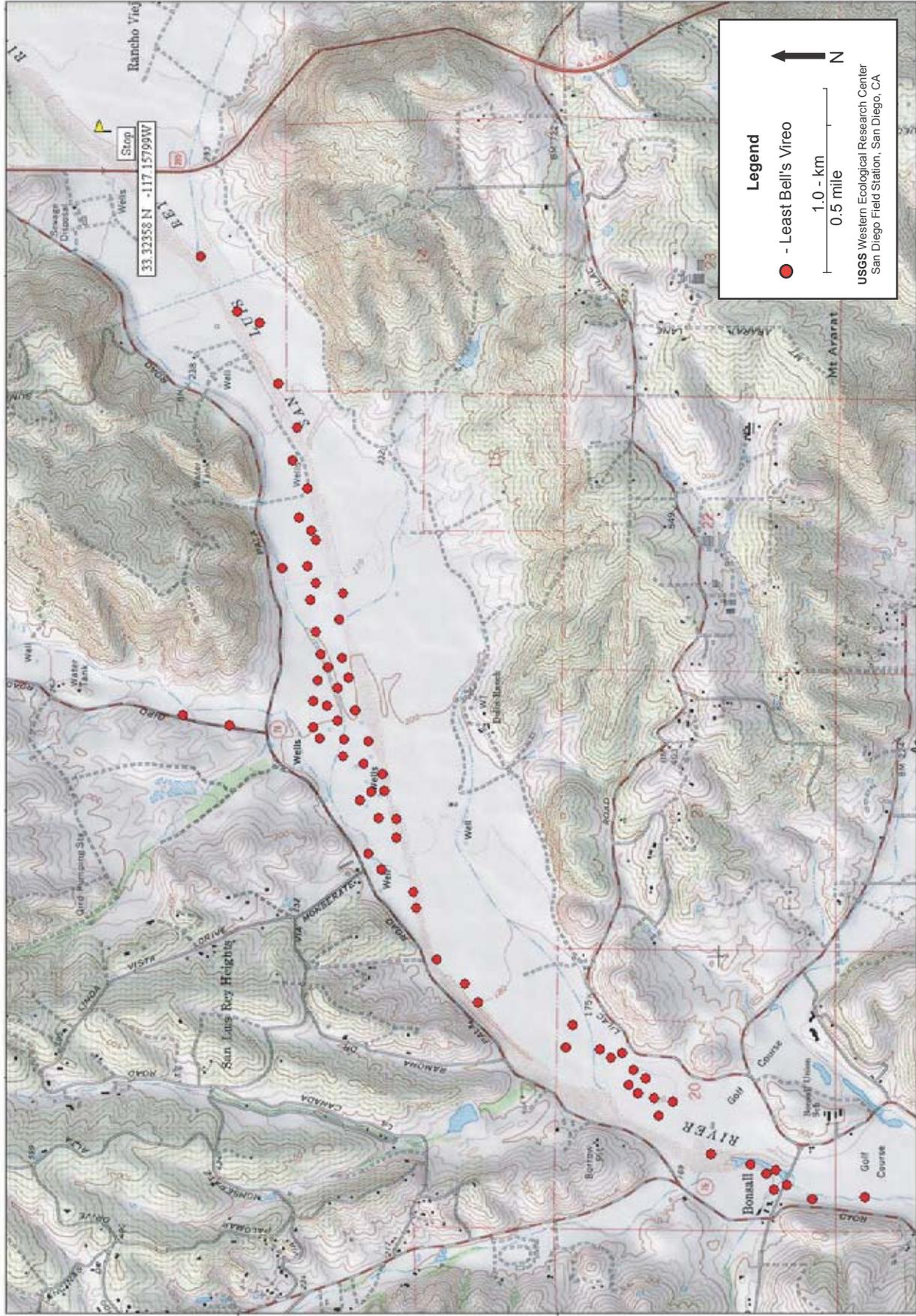
**Table 2.** Southwestern Willow Flycatchers banded in 2002 at the San Luis Rey River.

Territory	Latitude	Longitude	Band Combo <sup>a</sup>	Band #	Sex	Age <sup>b</sup>
SLR105	33.25269	-117.27995	rere: Mdg	2190-52533	Female	AHY
SLR	33.25528	-117.27779	Mdb: oror	2190-52530	Male	AHY
Whelan 1	33.24088	-117.336	Mdg: redg	2190-52529	unk	AHY
Whelan 2	33.24079	-117.3368	Mdg: dgye	1710-58903	unk	AHY

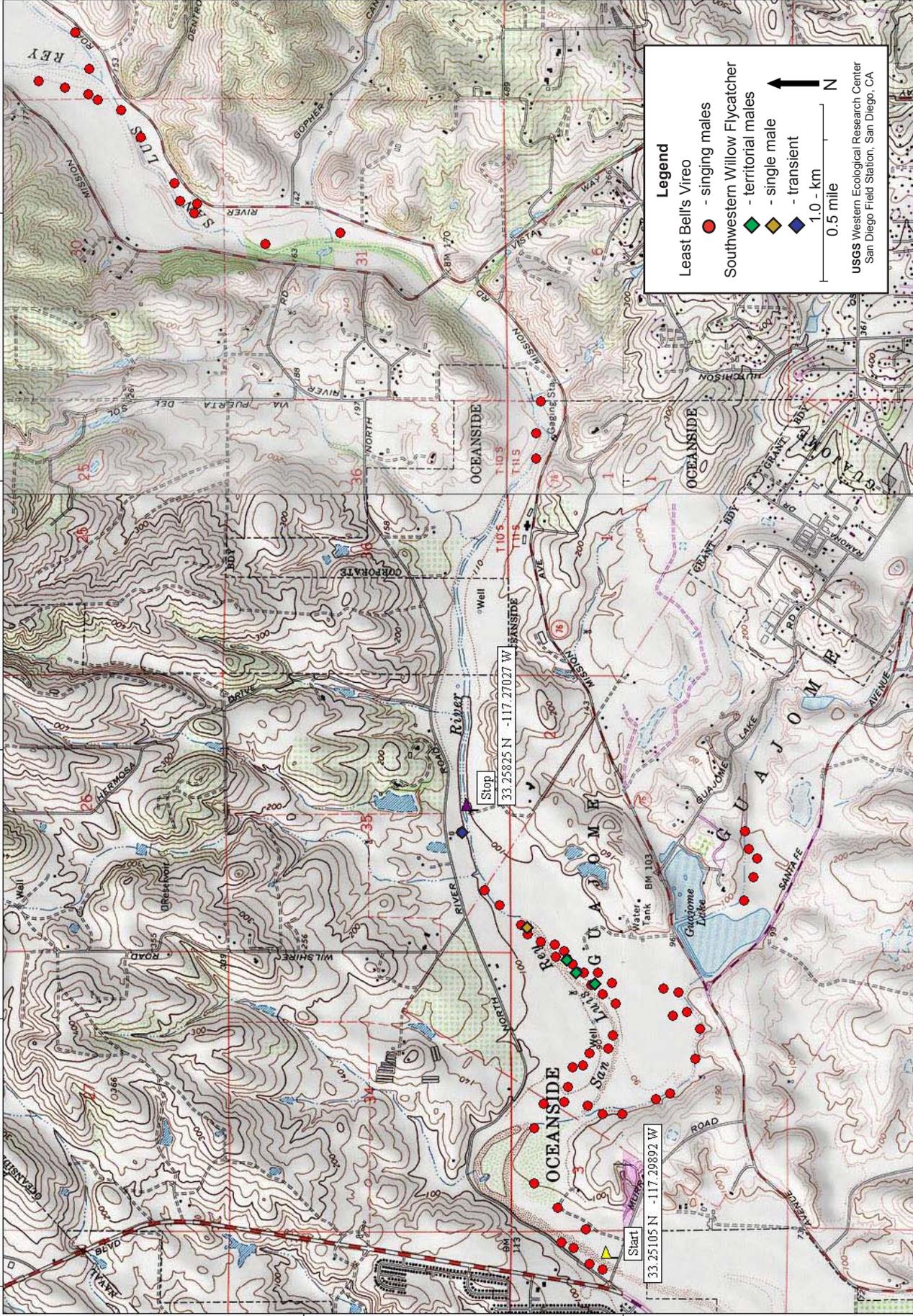
<sup>a</sup>The colon (:) separates the left leg from the right (left:right) (one solid or split colored metal band per leg).

Color codes: Mdg=dark green anodized Federal band; rere=red; oror=orange; redg=red/dark green split; dgye=dark green/yellow split.

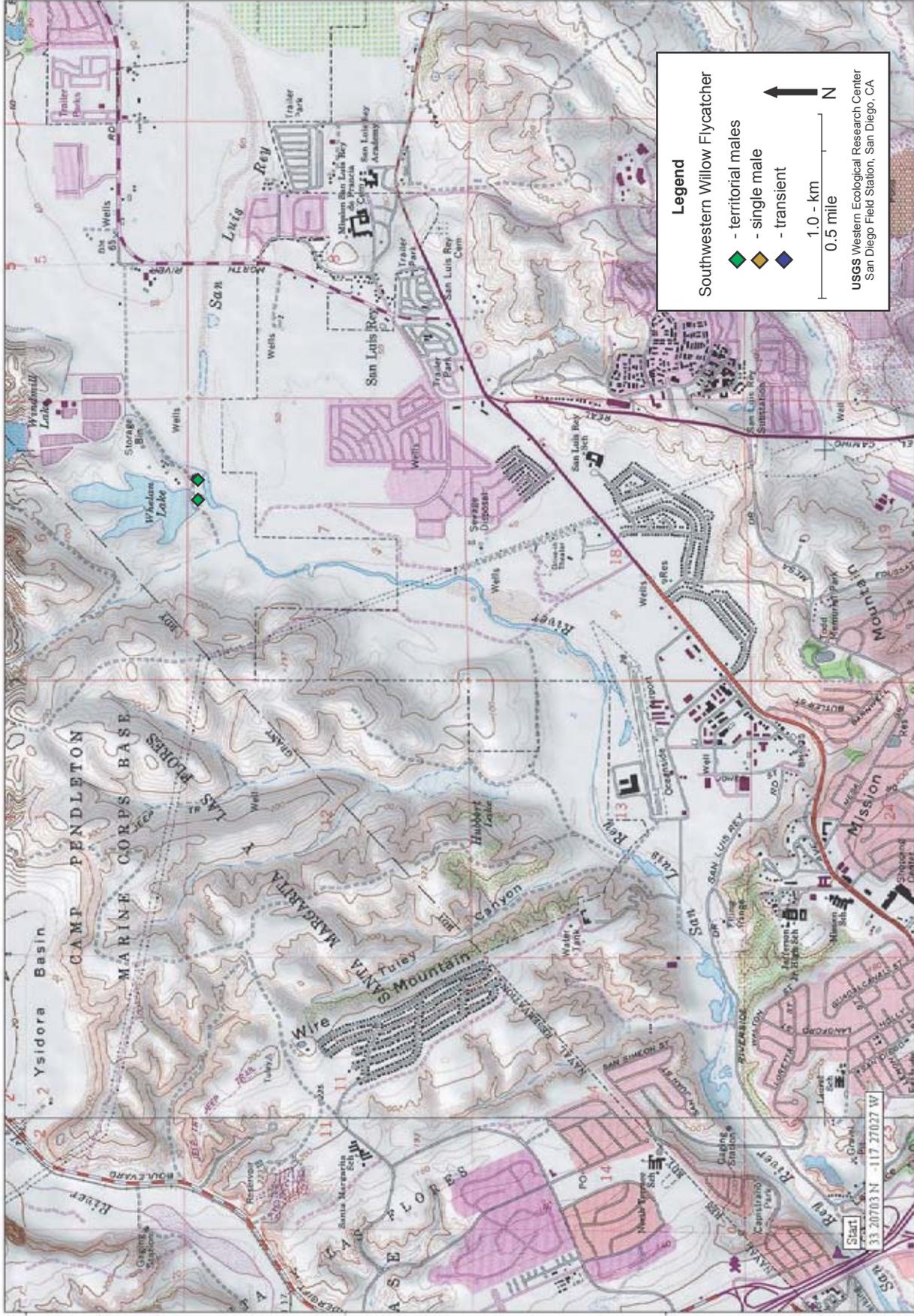
<sup>b</sup>AHY = "after hatch year", or an adult of unknown age.



**Figure 1.** Least Bell's Vireo locations along the San Luis Rey River in 2002. Survey limits shown by flags (purple = flycatcher, yellow = vireo).



**Figure 2.** Least Bell's Vireo and Southwestern Willow Flycatcher locations along the San Luis Rey River in 2002. Survey limits shown by flags (purple = flycatcher, yellow = vireo).



**Figure 3.** Southwestern Willow Flycatcher locations along the San Luis Rey River in 2002. Survey limits shown by flags (purple = flycatcher, yellow = vireo)