

Appendix E
Avian Monitoring Report

East Sand Slough Avian Monitoring Memo

In anticipation of construction on the East Sand Slough side channel, Swainson's Hawk surveys were conducted within the project area for the 2018 breeding season. Additionally, point count surveys were established to evaluate the breeding bird community at the site. All observations and conclusions were made by Michael Rogner, Senior Restoration Biologist for River Partners.

Swainson's Hawk Survey

The methodology for the survey was adopted from the Swainson's Hawk Technical Advisory Committee recommendations for nesting surveys in California's Central Valley. The only exception is that the surveys were not initiated until the first week of April.

Table 1. Surveys conducted by period

Survey Period	Period	# of Surveys
I	Jan - Mar 20	0
II	Mar 20 - Apr 5	1
III	Apr 5 - Apr 20	3
IV	Apr 21 - Jun 10	2
V	Jun 10 - Jul 30	0

Results

There was one Swainson's Hawk detection on April 17. The bird was soaring high over the project area and was not observed using any of the habitat. All other surveys resulted in zero detections.

A total of six surveys were conducted. No surveys were conducted in Period I (optional), nor were surveys conducted in Period V (nest monitoring) as there were no known breeding Swainson's Hawks to monitor.

Point Count Survey

We used a five-minute point count method (Ralph et al. 1993), surveying each of the point count stations twice during the peak breeding season for the Central Valley (once in May and once in June) in each year, for a total of 24 points surveyed. Surveys were conducted on mornings without strong wind or rain, and within the first 3-4 hours after local sunrise. Survey occasions were separated by at least ten days. The observer had expertise in bird identification and had conducted similar surveys for more than 15 years. We recorded the method of detection (song, visual, or call) and any observed breeding behavior (e.g., copulation, nest material, or food carry), and estimated the distance to all birds detected. Distances to detected birds were estimated in 10 m bands outward to 50 m, followed by three larger bands extending from 50 to 75 m, 75 m to 100 m and beyond 100 m.

Table 2. Dates of point count surveys conducted at East Sand Slough

Year	Visit	Date
2018	1	4-May
2018	2	11-Jun

Results

The surveys were conducted in anticipation of construction potentially occurring in 2018. The purpose of the surveys were to establish a baseline by which to evaluate the impacts of the East Sand Slough side channel restoration.

No Federally threatened or endangered species were detected during the surveys. One State threatened species (bank swallow) was detected on the May 4 survey, though no evidence of breeding was noted.

For this breeding season, a list of detected species is provided below. In future years, this baseline data could be used to evaluate changes in species richness, diversity, and abundance.

Table 3. Species detected within 50 meters of point count locations, East Sand Slough

Species	
Mallard	<i>Anas platyrhynchos</i>
California Quail	<i>Callipepla californica</i>
Great Blue Heron	<i>Ardea herodias</i>
Green Heron	<i>Butorides virescens</i>
Turkey Vulture	<i>Cathartes aura</i>
Osprey	<i>Pandion haliaetus</i>
Killdeer	<i>Charadrius vociferus</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Eurasian Collared-Dove	<i>Streptopelia decaocto</i>
Mourning Dove	<i>Zenaida macroura</i>
Lesser Nighthawk	<i>Chordeiles acutipennis</i>
Anna's Hummingbird	<i>Calypte anna</i>
Nuttall's Woodpecker	<i>Picoides nuttallii</i>
Northern Flicker	<i>Colaptes auratus</i>
Western Wood-Pewee	<i>Contopus sordidulus</i>
Black Phoebe	<i>Sayornis nigricans</i>
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>
Western Kingbird	<i>Tyrannus verticalis</i>
California Scrub-Jay	<i>Aphelocoma californica</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Bank Swallow	<i>Riparia riparia</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Oak Titmouse	<i>Baeolophus inornatus</i>

White-breasted Nuthatch	<i>Sitta carolinensis</i>
House Wren	<i>Troglodytes aedon</i>
Bewick's Wren	<i>Thryomanes bewickii</i>
American Robin	<i>Turdus migratorius</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
European Starling	<i>Sturnus vulgaris</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
California Towhee	<i>Melospiza crissalis</i>
Spotted Towhee	<i>Pipilo maculatus</i>
	<i>Pheucticus</i>
Black-headed Grosbeak	<i>melanocephalus</i>
Lazuli Bunting	<i>Passerina amoena</i>
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Bullock's Oriole	<i>Icterus bullockii</i>
House Finch	<i>Haemorhous mexicanus</i>
Lesser Goldfinch	<i>Spinus psaltria</i>
American Goldfinch	<i>Spinus tristis</i>
House Sparrow	<i>Passer domesticus</i>