AVIAN RESPONSE TO ARUNDO REMOVAL AND NATIVE PLANTING

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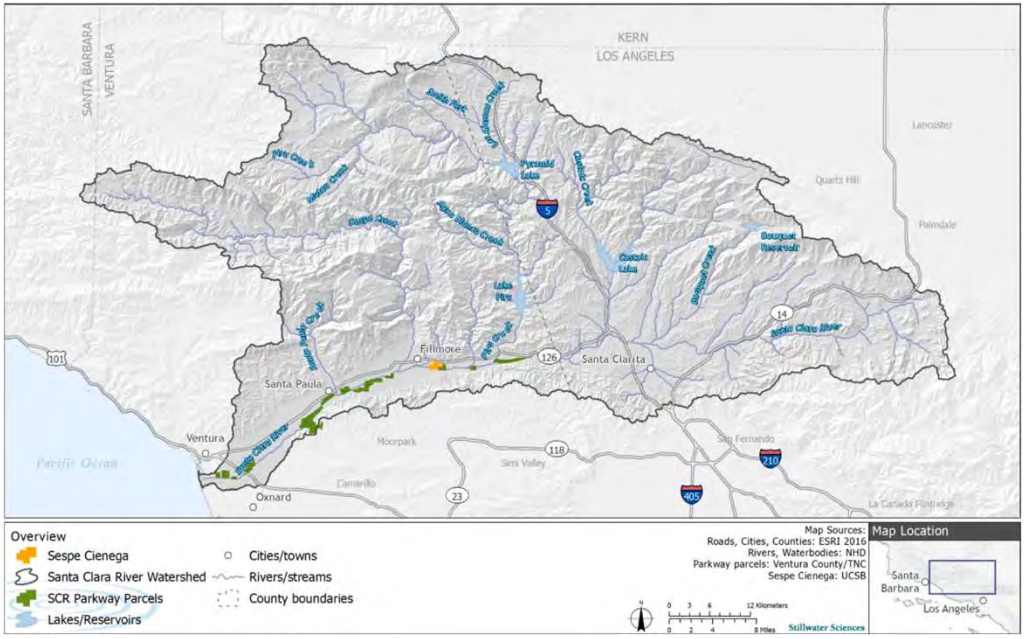
Sean Carey (UC Santa Barbara)
Kibler et al.

CIENEGA SPRINGS ECOLOGICAL RESERVE

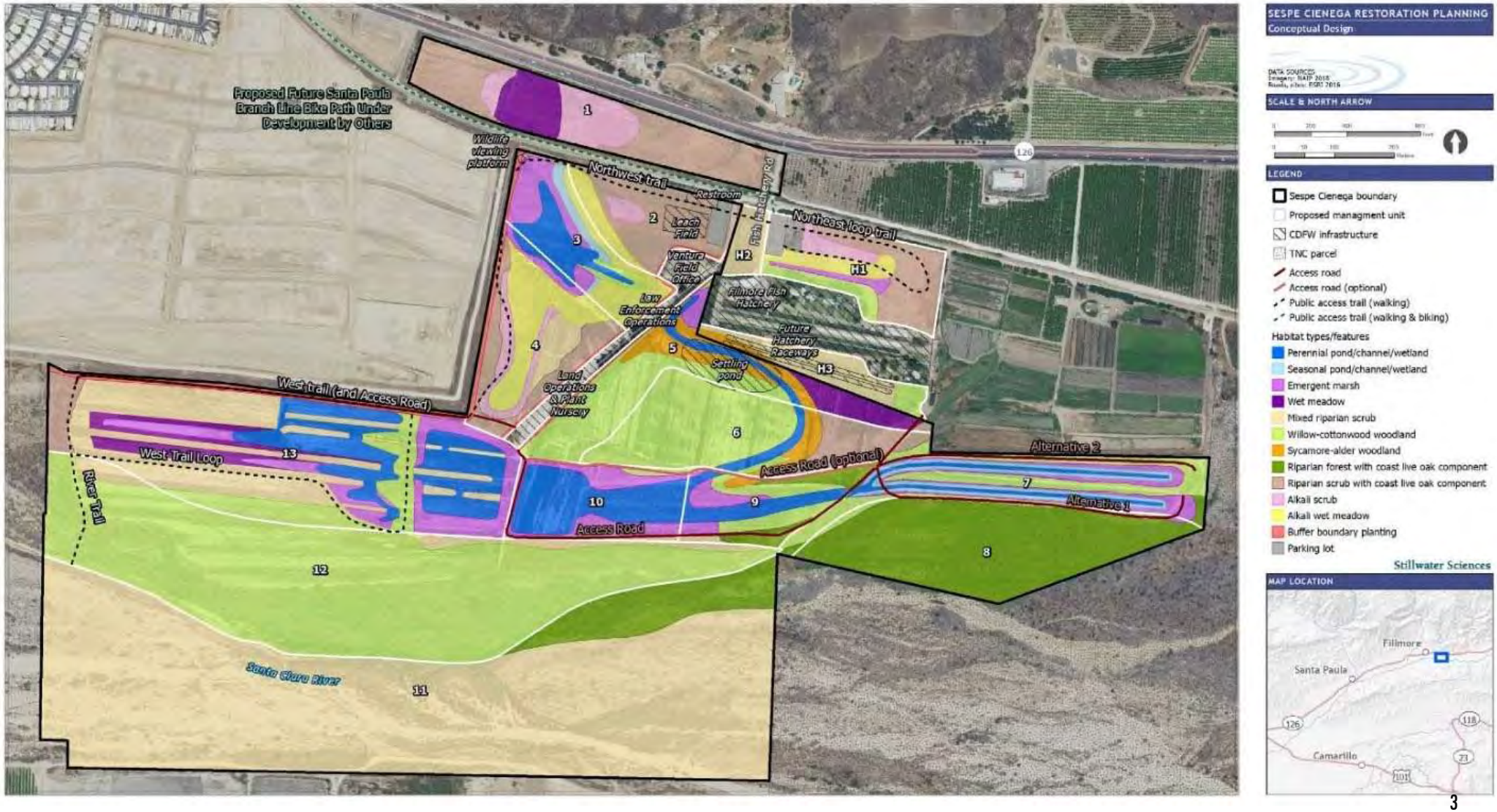


Location

- Fillmore, CA
- 250 acres
- CDFW fish hatchery
- Historic agriculture use

Timeline

- Arundo removal 2019-2021
- Native planting 2021- present
- Earthwork



SESPE CIENEGA RESTORATION PLANNING
Conceptual Design

DATA SOURCES
Imagery: NAIP 2016
Roads, other: ESRI 2016

SCALE & NORTH ARROW

LEGEND

- Sespe Cienega boundary
- Proposed managment unit
- CDFW infrastructure
- TNC parcel
- Access road
- Access road (optional)
- Public access trail (walking)
- Public access trail (walking & biking)

Habitat types/features

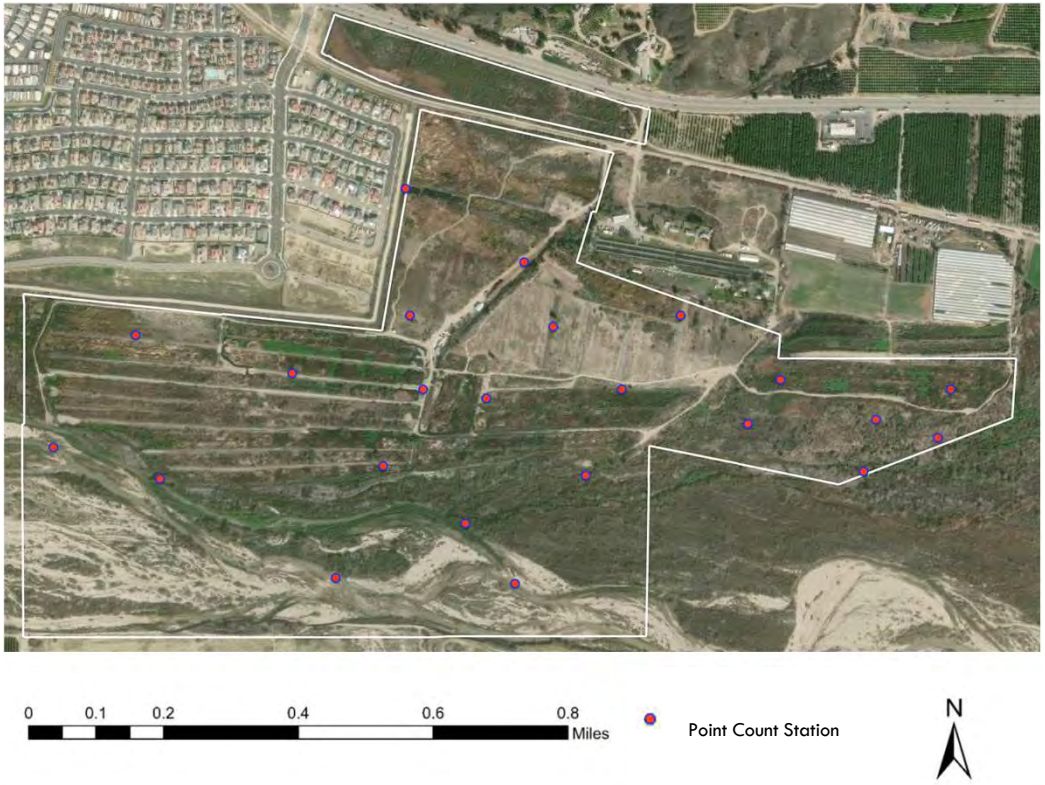
- Perennial pond/channel/wetland
- Seasonal pond/channel/wetland
- Emergent marsh
- Wet meadow
- Mixed riparian scrub
- Willow-cottonwood woodland
- Sycamore-alder woodland
- Riparian forest with coast live oak component
- Riparian scrub with coast live oak component
- Alkali scrub
- Alkali wet meadow
- Buffer boundary planting
- Parking lot

Stillwater Sciences

MAP LOCATION

POINT COUNT STATIONS

- 24 permanent points
- Response to habitat restoration and arundo removal
- 150+ species



HABITAT ASSOCIATIONS

Willow-cottonwood forests

- Least Bell's Vireo – endangered
- Yellow-breasted Chat – CA sensitive species
- Common Yellow-throat
- Yellow Warbler

Riparian scrub

- California quail
- House Finch
- California Towhee
- Bewick's Wren

PASSIFORMS

Passerines

- Tree clinging birds.
- Songbirds

1. Arboreal
2. Shrub
3. Ground

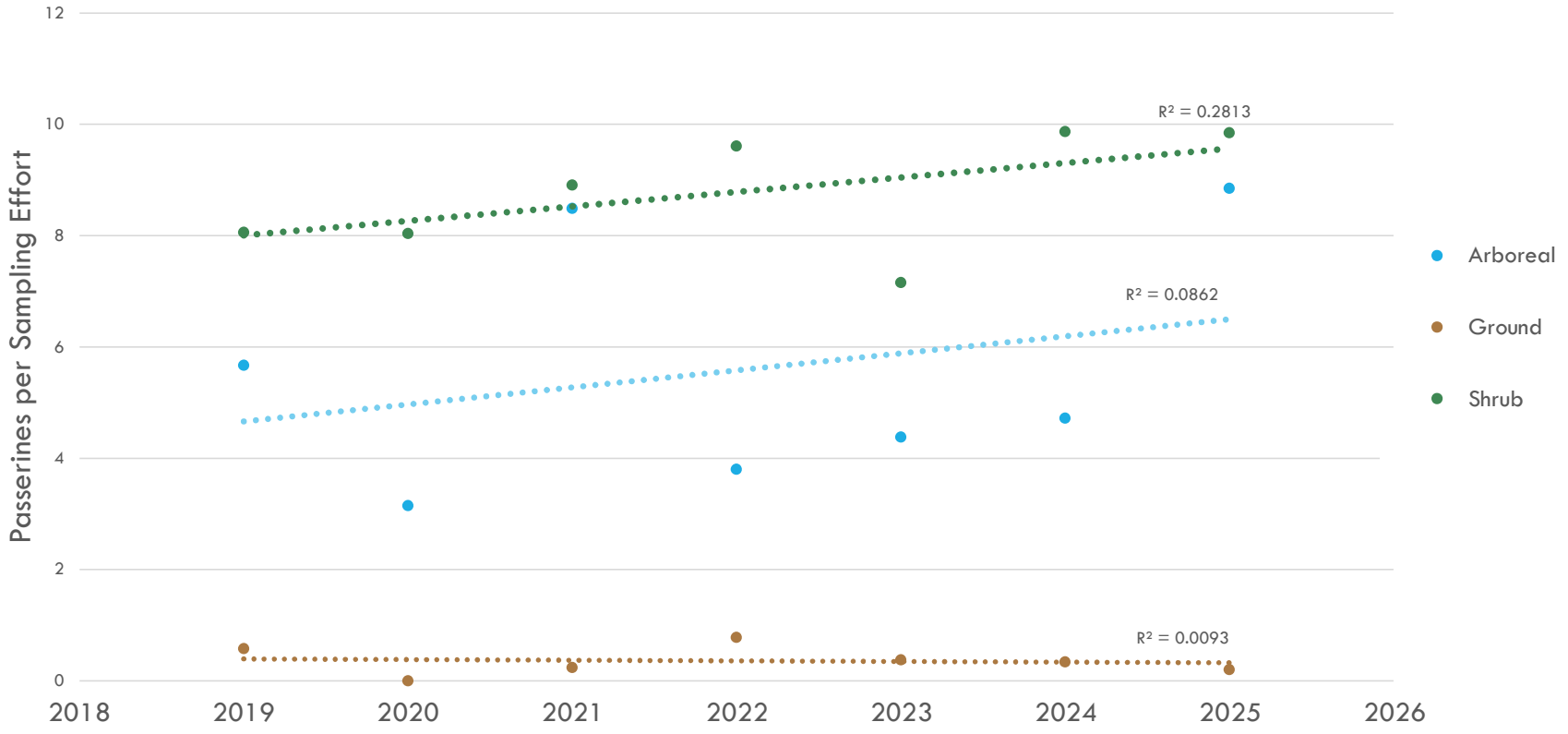
COMPLEX SITE CHANGES

- Trees mowed
- Arundo cleared
- Fields planted
- River sheet flows


2019


2025

Passerine Observations by Guild



CONSISTENCY WITH OTHER FINDINGS

Kibler et al. - *Sensitivity of riparian bird populations to changes in vegetation cover and structure during extreme drought*

- Positive association with vegetation cover

Kipler et al. (2025) *Sensitivity of riparian bird populations to changes in vegetation cover and structure during extreme drought*. Unpublished manuscript.

CONSISTENCY WITH OTHER FINDINGS

Santa Paula, CA

- Restoration types shape bird communities
- Willows as drivers
- Arundo removal causes abundance increase

TAKEAWAYS

- Arundo removal and restoration efforts shape bird community composition
- Site consistency