SAWPA

# Riverwalk Data Summary

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*December 9th, 2025*

Sucker Conservation Team

# Purpose of Presentation

Santa Ana Sucker Conservation Team

Provide updates on the annual Santa Ana Sucker Habitat Survey and present preliminary findings from the 2025 survey, marking this to be the 20th year of monitoring the Santa Ana River.

Special thanks to our partners, including the Orange County Water District, San Bernardo Valley Municipal Water District, Colton Police Department, Riverside County Regional Park & Open-Space District, and the U.S. Fish and Wildlife Service

# Santa Ana Sucker

**Sucker Fish Overview**

## Historical Locations

- San Gabriel River Basin
- Los Angeles River Basin
- Santa Ana River Basin

## Habitat Reliance

- Course substrate (gravel, boulders and cobble)
- Shallow riffles and deeper runs and pools

## Biological Characteristics

- Large lips and a small, downward-facing mouth, enabling it to "vacuum" algae, invertebrates, and organic matter
- Adults: six inches in length
- Coloration: dark, blotchy backs with silvery undersides.

## Degradations

- Low substrate quality
- Impaired water quality



https://www.fws.gov/species/santa-ana-sucker-catostomus-santaanae

Santa Ana Sucker Conservation Team

# Benefits of Habitat Surveys

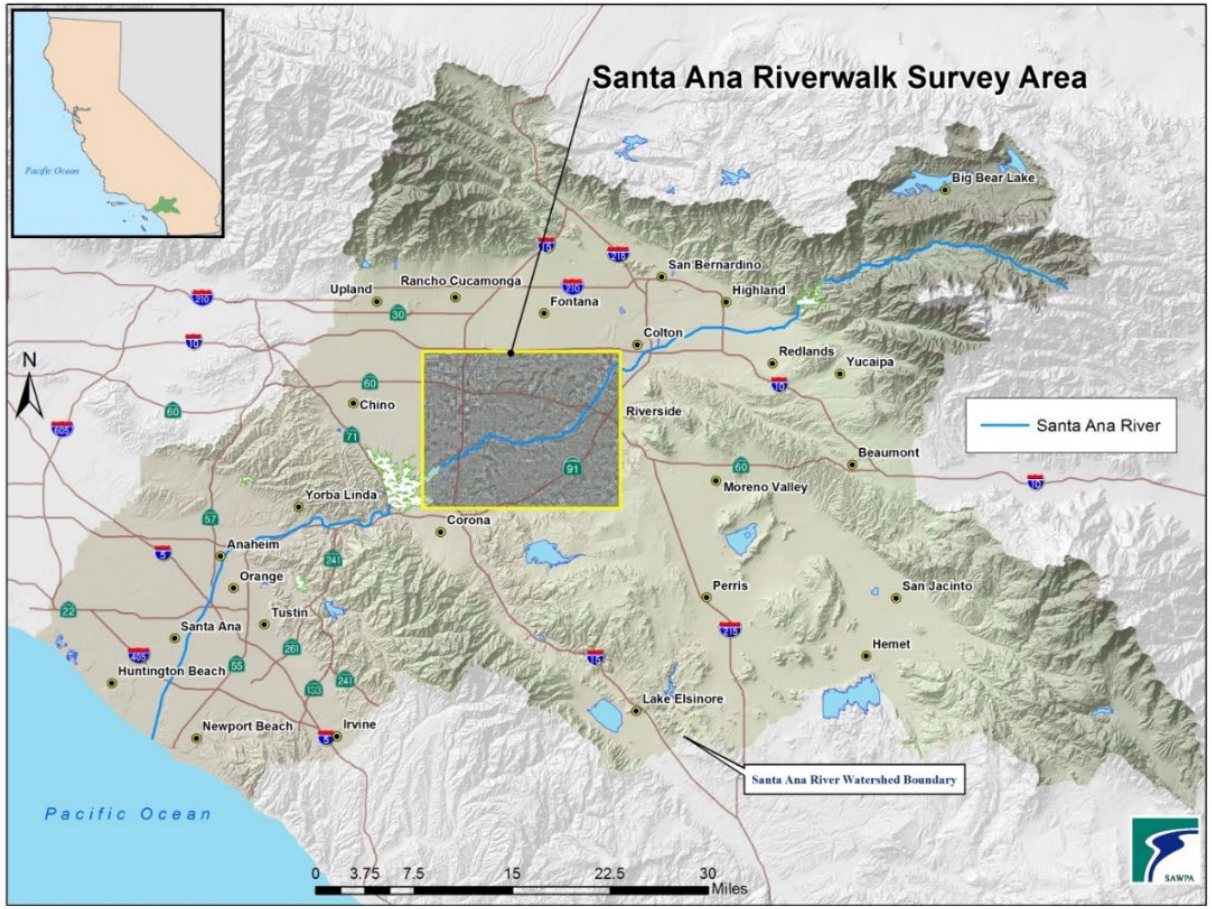
**Watershed stakeholders/agencies use the data to…**

- Plan location of habitat projects
- Gage if projects are having the intended effect
- Stakeholders plan for their region-wide habitat planning
- Gage amount of beneficial habitat

# Survey Location

- Since 2006, Riverwalk data has been collected during the fall at approximately the same geo-located points each year, with each point labeled with a designating number: 9 through 116 (1-8 normally dry).

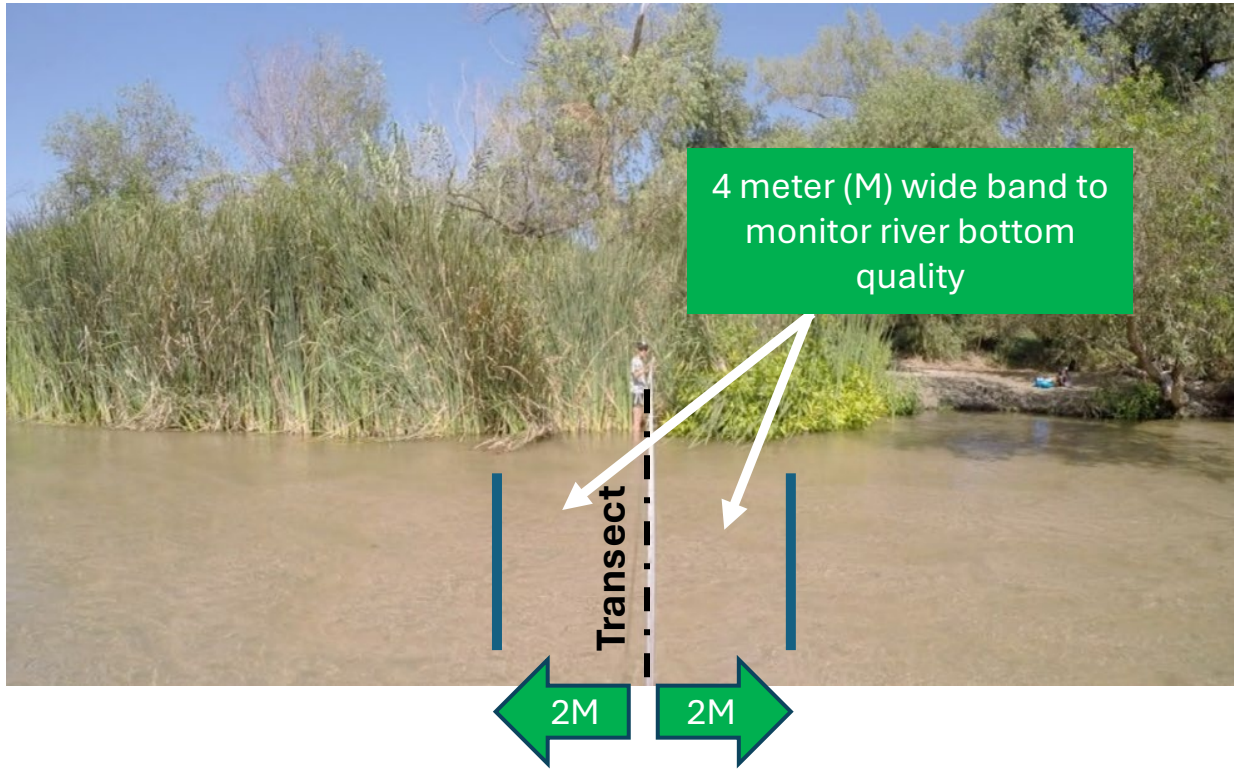
- These locations are chosen because the River is perennially flowing (i.e. downstream of Publicly Owned Treatment Works discharge points and rising groundwater).



# River Bottom Measurements

At each preset field point, a transect line is drawn from bank to bank.

To identify the area to monitor, a 4-meter-wide band is centered at the transect.




The area is surveyed by visually identifying river bottom material:

- Mud/Silt
- Sand
- Gravel
- Cobble
- Boulder

# River Bottom Analysis

- Three quality categories:

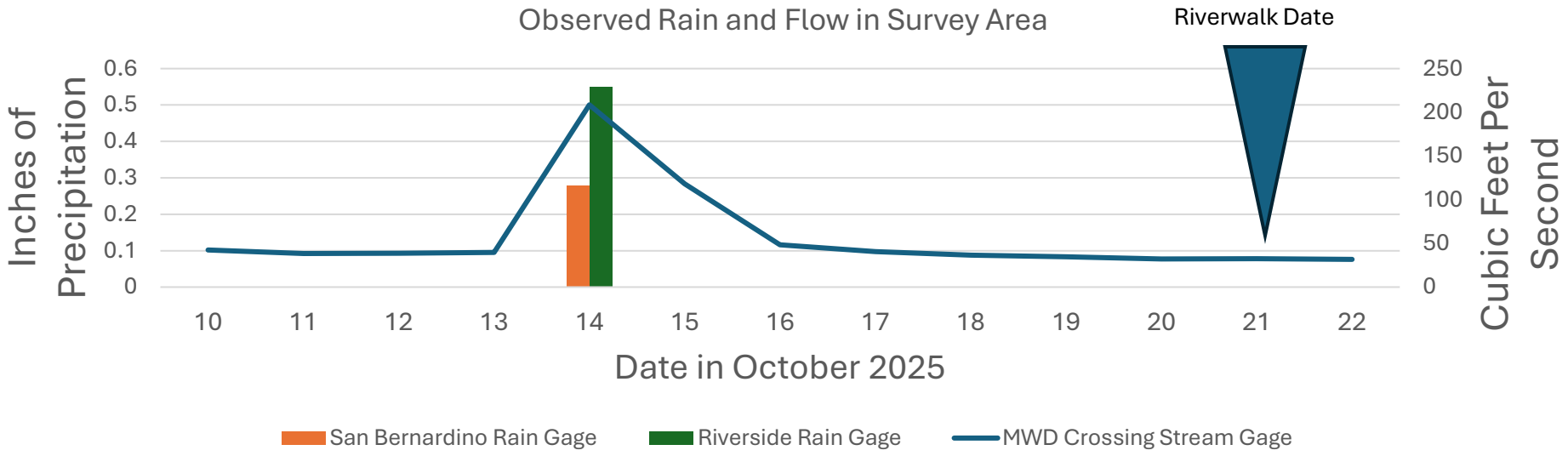
- The purpose of categories is to share results of the Riverwalk in an easy-to-understand format for experts and the general public.

| Riverwalk Rating Categories | Formula for Rating | Rating Threshold |
|---|---|---|
| Poor | Sum of gravel, cobble and boulder | ≤30% |
| Marginal | | >30% to <65% |
| Good | | ≥65% |

# Timing of Data Collection

A minor storm on October 14 (less than 1 inch precipitation) prompted a short delay. The survey was rescheduled from October 16 to October 21 to allow river conditions to stabilize.

Credit: Press Enterprise



# Observations from 2025

- Turbidity was an issue within that 7-day window (October 14 to October 21). Especially for the lower parts of the survey area near River Road.
- 61 sites were able to be surveyed (on average 99 transects are surveyed).
    - 25 sites were not surveyed due to active levee rehabilitation project.
    - 14 sites not surveyed due to high flows/turbidity.

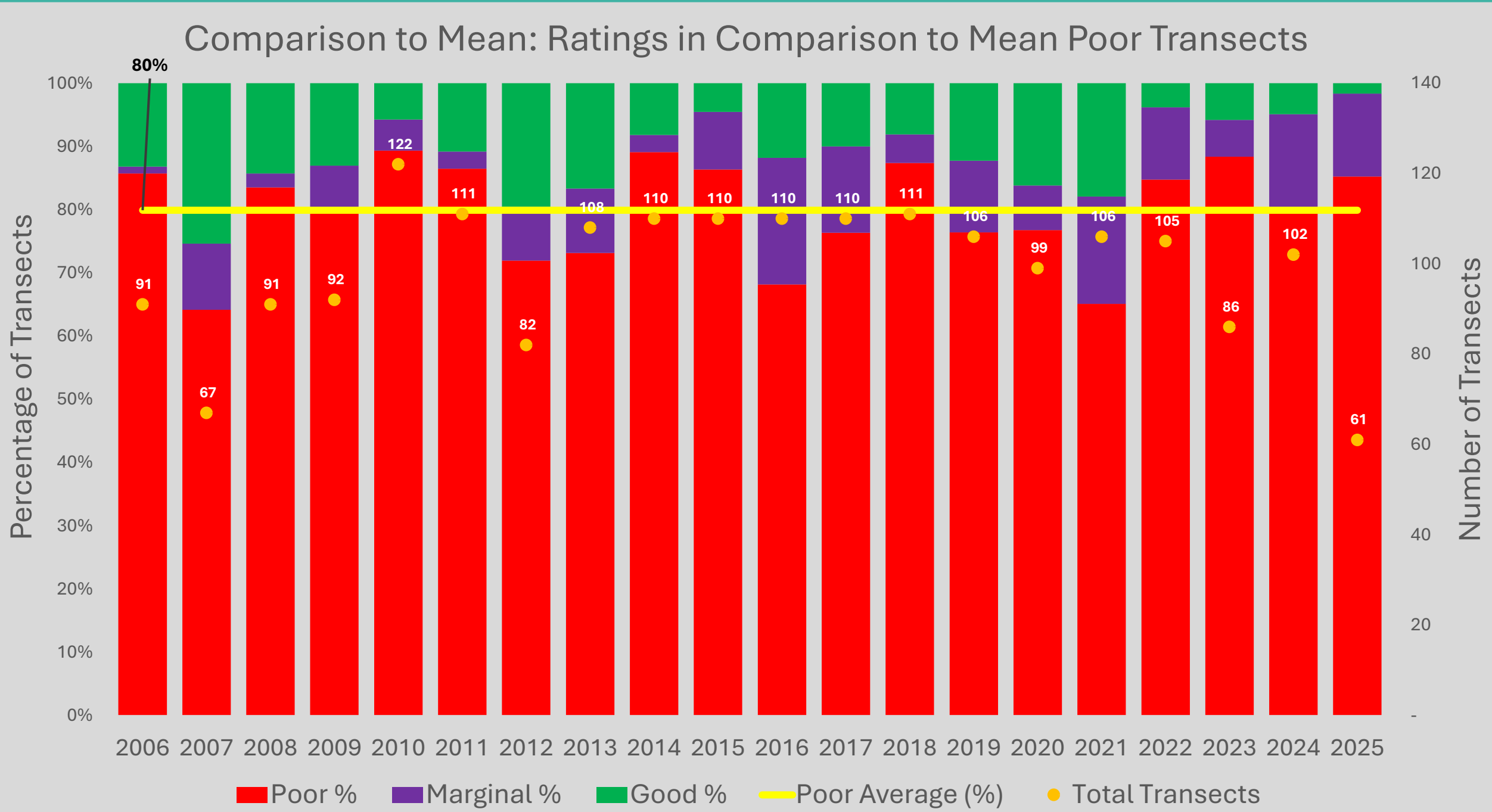
| Riverwalk Rating | Amount in 2025 | Formula for Rating | Rating Threshold |
|---|---|---|---|
| Poor | 52 | Sum of gravel, cobble and boulder | ≤30% |
| Marginal | 8 | | >30% to <65% |
| Good | 1 | | ≥65% |

Total: 61

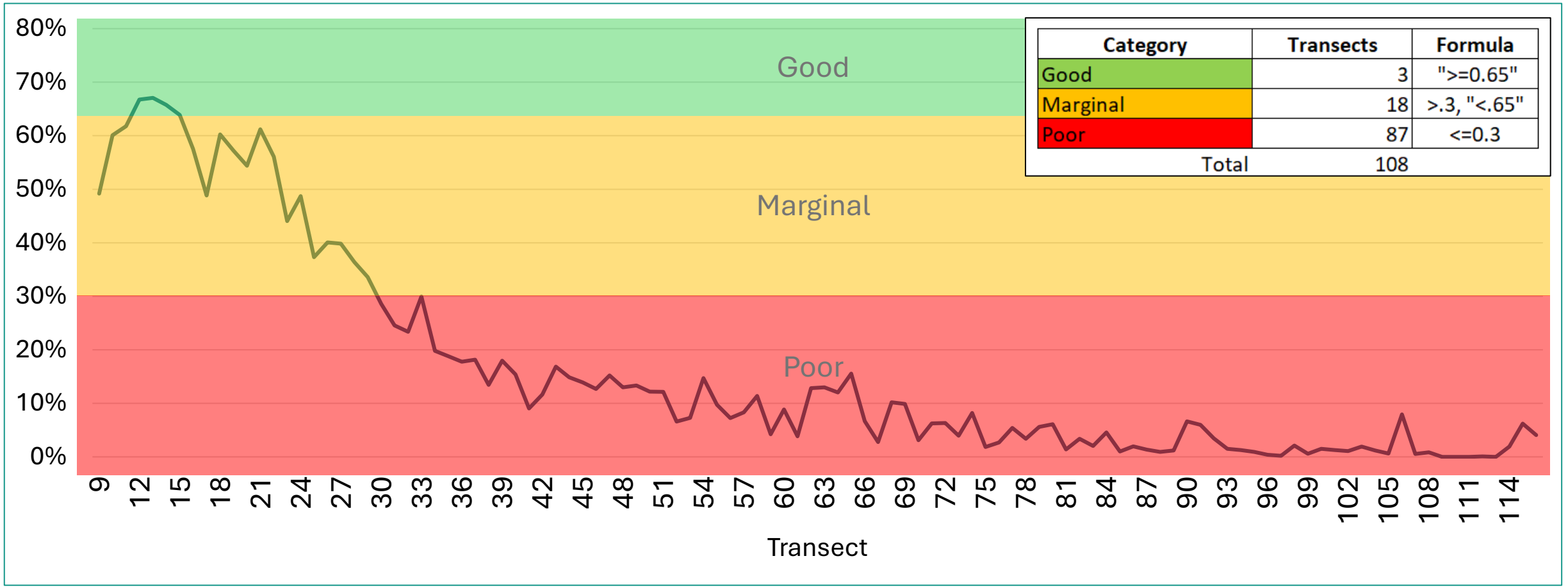
# 2025 Map

Restrictions:

- Transects **18-43**: Levee Project - Riverside County Flood Control District
- Transects **72-78**: Limited volunteers availability
- Transects **102-116**: High water flows


Comparison to Mean: Ratings in Comparison to Mean Poor Transects
80%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percentage of Transects
140
120
100
80
60
40
20
-
Number of Transects
91
67
91
92
122
111
82
108
110
110
110
110
111
106
99
106
105
86
102
61
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Poor %
Marginal %
Good %
Poor Average (%)
Total Transects

# Percent Good Habitat at Each Transect - 20 Year Average




| Category | Transects | Formula |
|---|---|---|
| Good | 3 | ">=0.65" |
| Marginal | 18 | >.3, "<.65" |
| Poor | 87 | <=0.3 |
| Total | 108 | |

# Average Map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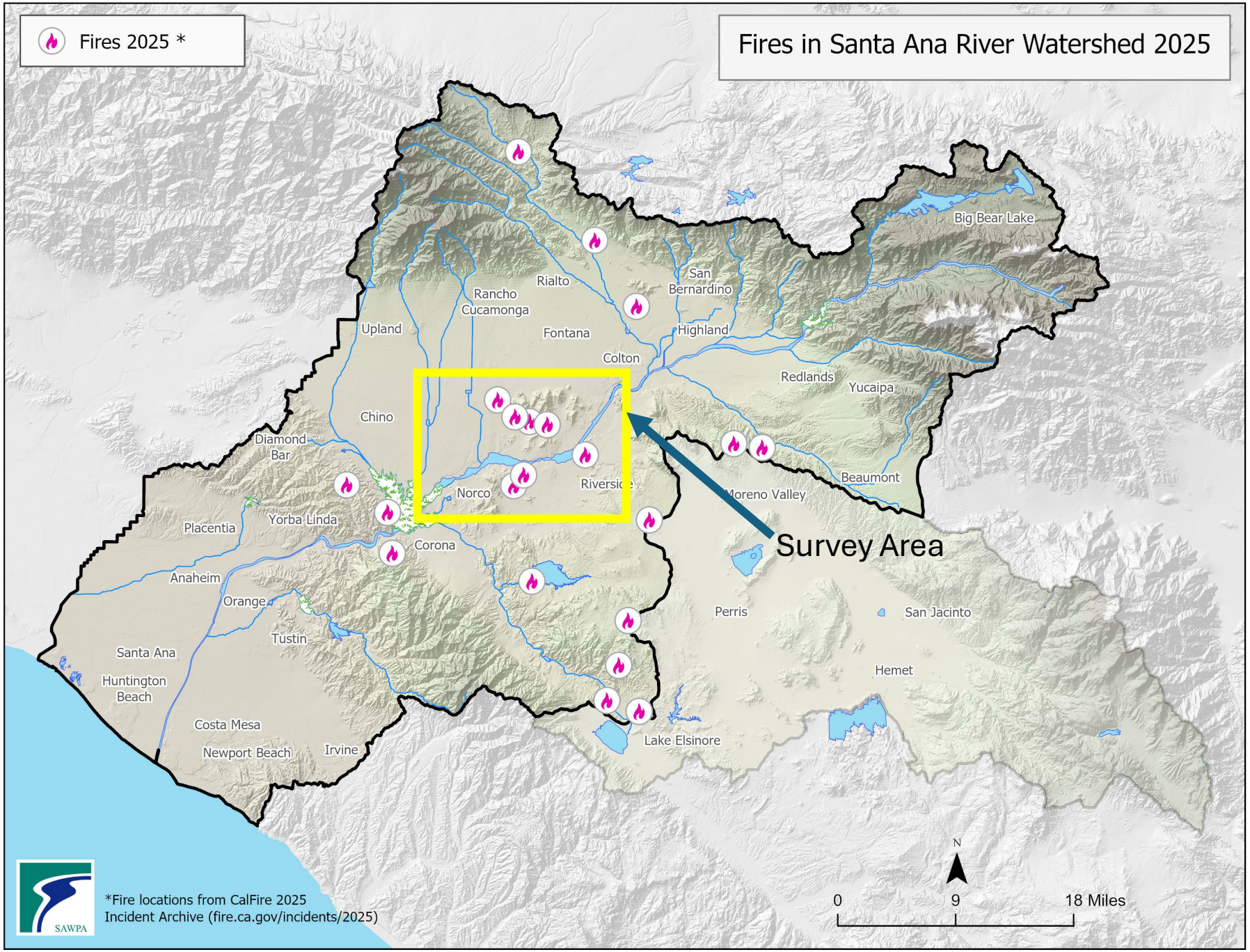
# Natural Factors That Increase Turbidity

- Soil Erosion
- Fires: disposes ash, debris, contaminants
- Elevation: Slope increase
- Fooding

Health Disparity effects:

- Clogging fish gills
- Hindering visibility
- Decreasing light penetration >reducing photosynthesize rates of aquatic plants

https://www.epa.gov/system/files/documents/2021-07/parameter-factsheet_turbidity.pdf

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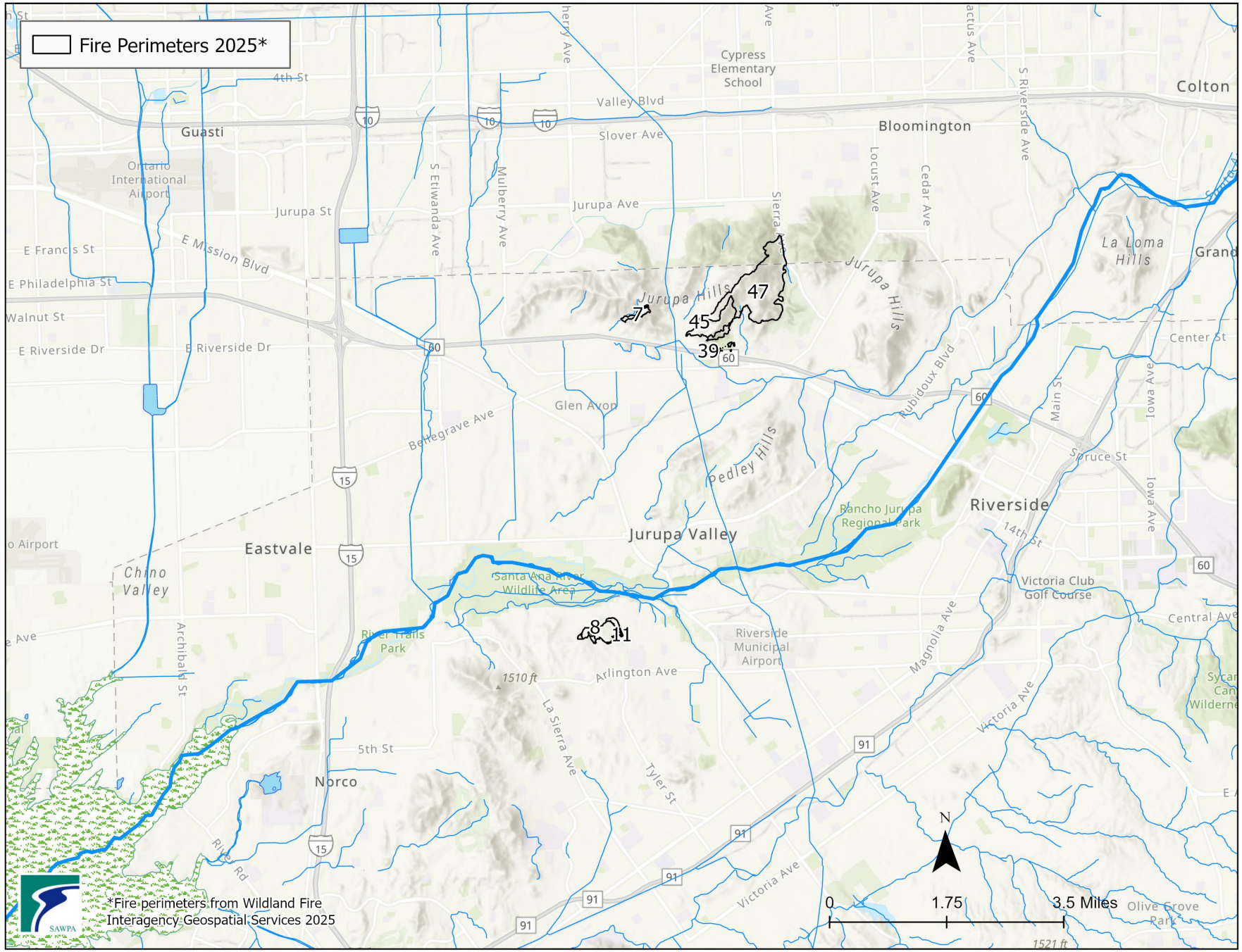
# 2025 Nearby Fire Paths




P:\Projects\Ian\Fires_2025\Fires_2025.aprx LoFireBoundaries_AOI2025 SW-3438

# Next Steps

- **Discuss results with Sucker Team.**
- **Investigate differences in turbidity across the survey area with photos and data.**
- **Coordinate closely with Flood Control on their levee construction project.**
- **Coordinate with Sucker Team on possible Winter Riverwalk for January or February 2026.**
- **Update Riverwalk Report and post data on SAWPA website.**

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