STEELHEAD MANAGEMENT AT THE SOUTHERN END OF THE RANGE

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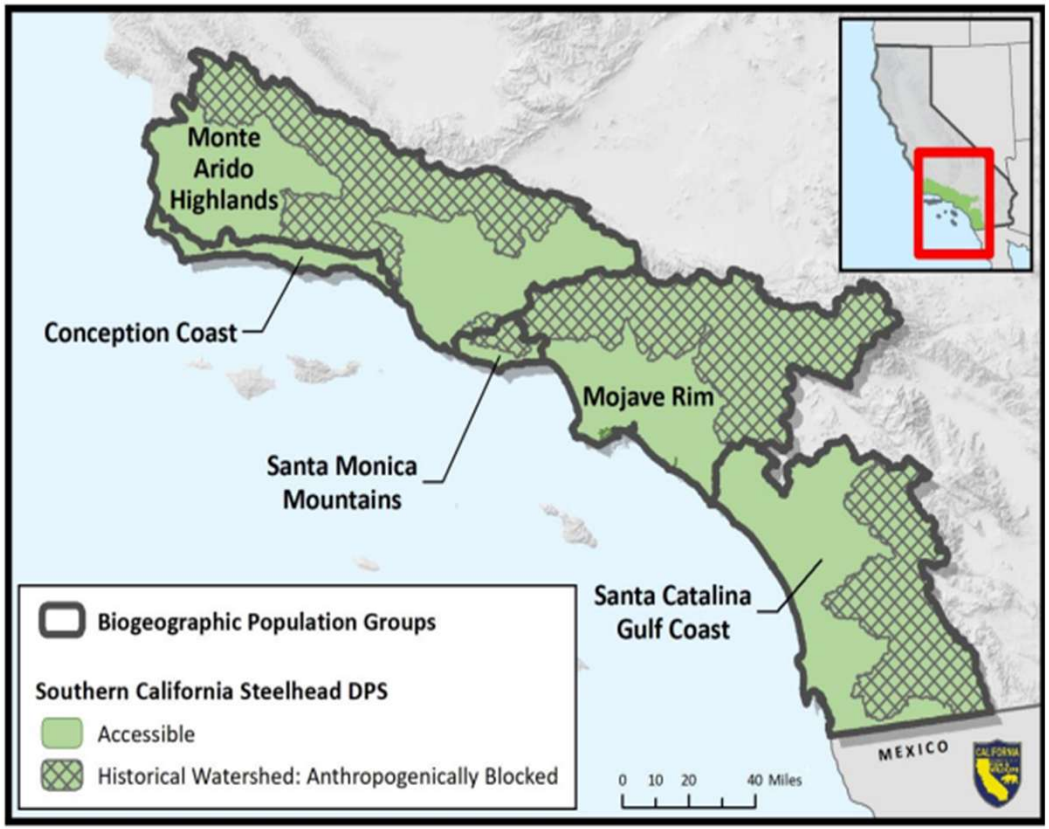
PSMFC Steelhead Conference – December 10, 2025

Southern California Steelhead

- Endangered under federal ESA in 1997
- Endangered under California ESA in 2025
- Listed as a Distinct Population Segment
- Variation in the time and location spent at each life-history can vary depending on environmental factors

Range and Distribution

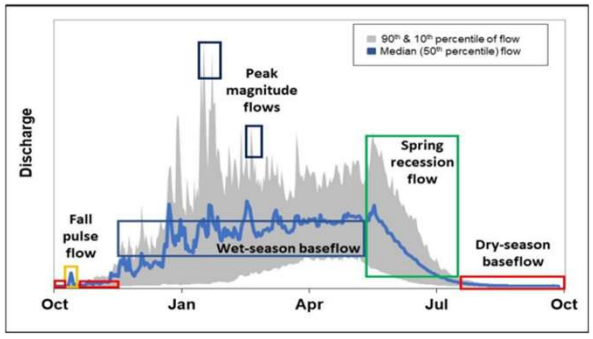
- Santa Maria River (San Luis Obispo and Santa Barbara counties)to the U.S.-Mexico Border
- Encompasses 5 biogeographic population groups of *O. mykiss*
- Less than half of 46 watersheds known to support historical populations are still occupied



Map by Janet Brewster, CDFW

Stream Features

- Over-allocated water resources
- Flashy systems
- Passage barriers
- Additional threats
  - Urbanization
  - Invasive species
  - Climate change

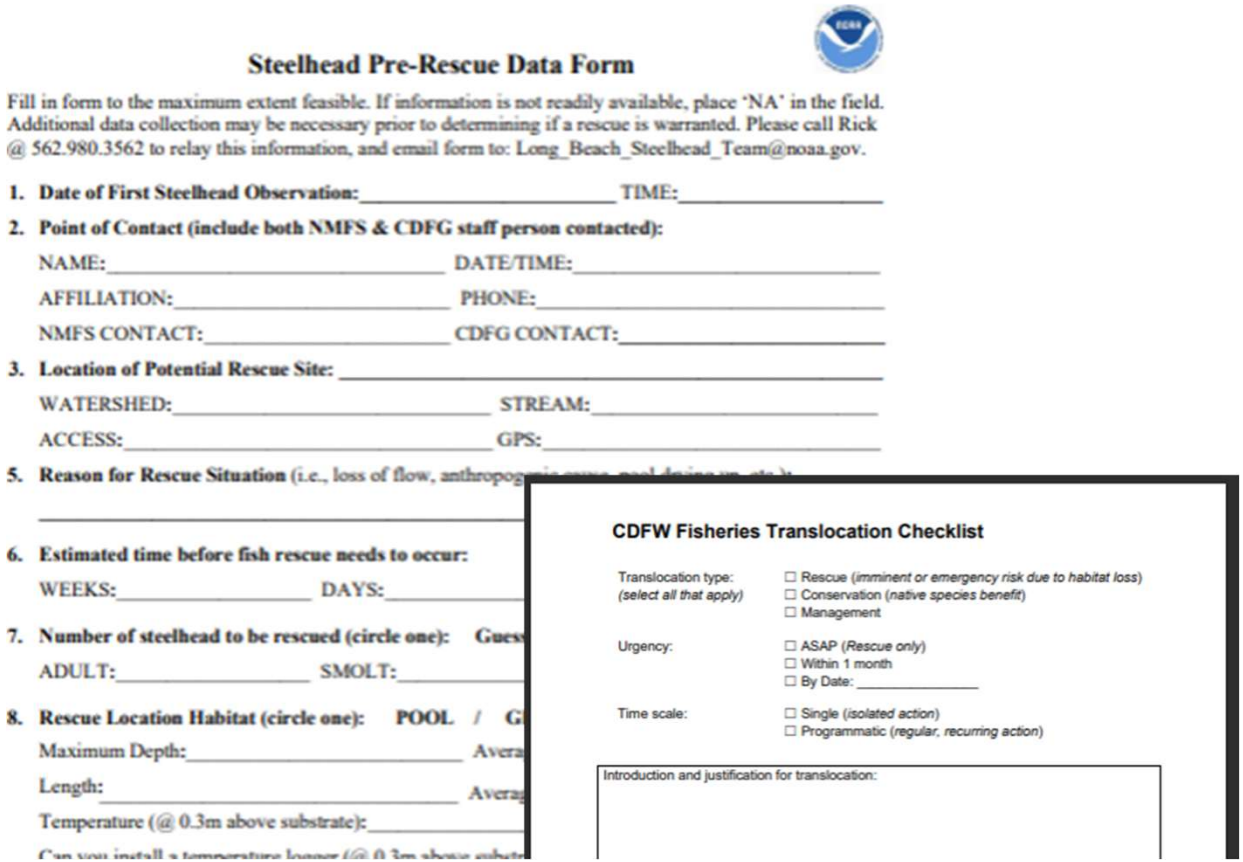


Management and Recovery Measures

- Implement comprehensive monitoring
- Remove manmade passage barriers and re-establish access to upper watersheds
- Restore habitat and streamflow

Rescue and Relocation

Permit Framework



Steelhead Pre-Rescue Data Form

Fill in form to the maximum extent feasible. If information is not readily available, place 'NA' in the field. Additional data collection may be necessary prior to determining if a rescue is warranted. Please call Rick @ 562.980.3562 to relay this information, and email form to: Long_Beach_Steelhead_Team@noaa.gov.

1. **Date of First Steelhead Observation:**_____ TIME:_____
2. **Point of Contact (include both NMFS & CDFG staff person contacted):**
   NAME:_____ DATE/TIME:_____
   AFFILIATION:_____ PHONE:_____
   NMFS CONTACT:_____ CDFG CONTACT:_____
3. **Location of Potential Rescue Site:** _____
   WATERSHED:_____ STREAM:_____
   ACCESS:_____ GPS:_____
5. **Reason for Rescue Situation** (i.e., loss of flow, anthropo
6. **Estimated time before fish rescue needs to occur:**
   WEEKS:_____ DAYS:_____
7. **Number of steelhead to be rescued (circle one):** Guess
   ADULT:_____ SMOLT:_____
8. **Rescue Location Habitat (circle one):** POOL / G
   Maximum Depth:_____ Avera
   Length:_____ Averag
   Temperature (@ 0.3m above substrate):_____

CDFW Fisheries Translocation Checklist

Translocation type: *(select all that apply)*
- ☐ Rescue (*imminent or emergency risk due to habitat loss*)
- ☐ Conservation (*native species benefit*)
- ☐ Management

Urgency:
- ☐ ASAP (*Rescue only*)
- ☐ Within 1 month
- ☐ By Date: _____

Time scale:
- ☐ Single (*isolated action*)
- ☐ Programmatic (*regular, recurring action*)

Introduction and justification for translocation:

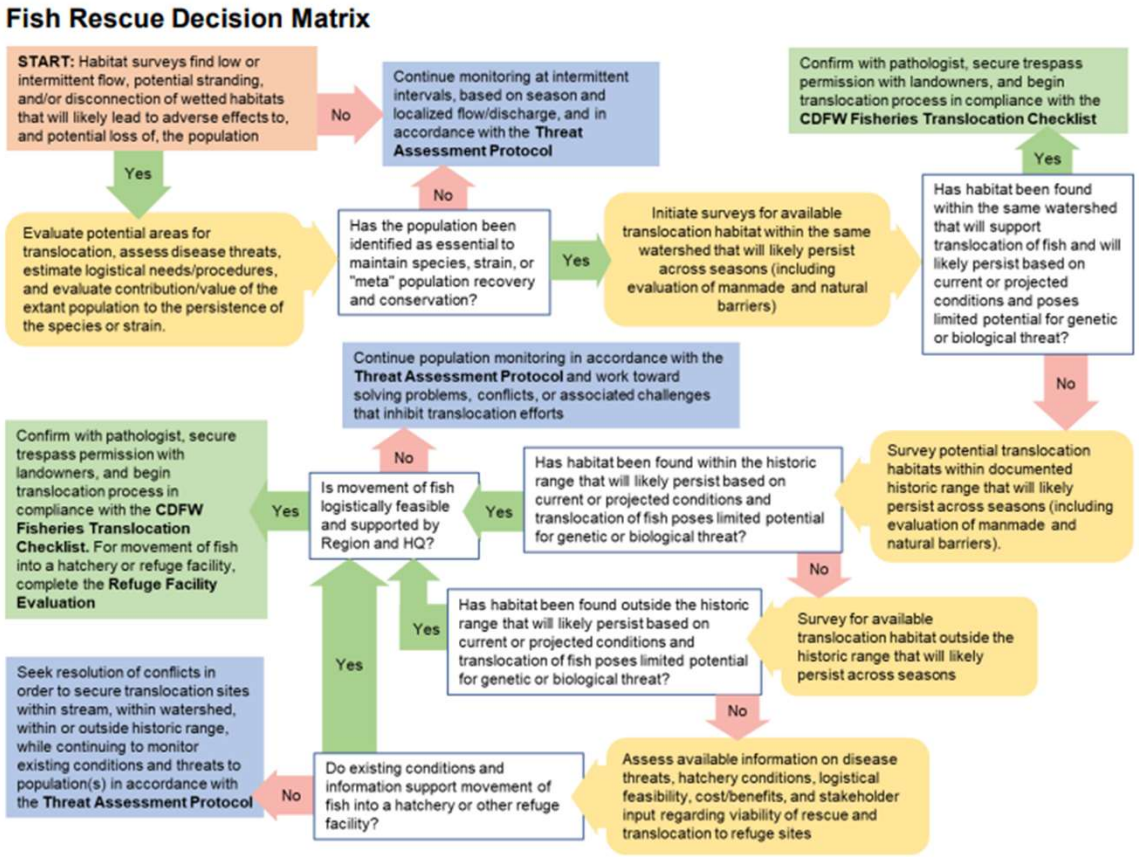
- NMFS Section 10 permit
  - Relocation
  - Research
  - Invasive spp mgmt.
- All rescues are approved by NMFS
- Reporting post-rescue and annually
- Stipulations: only if in danger of perishing, keep within watershed

Habitat Factors Considered

- Depth, temperature, dissolved oxygen (DO), in/out flow, number of fish, watershed population vulnerability
- Aerating alternative
- Location, access, and staff availability
- Relocation unit suitability: perennial flow, temp, DO

Rescue Process

- Local biologists, landowners, or citizens contact CDFW or NMFS
- Pre-rescue data collected
- CDFW-NMFS coordination determines feasibility and urgency of rescue
- Watch pools
- Execute rescue
- Document for CDFW and NMFS



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Overall Rescue Efforts

- 4,540 individual O. mykiss relocated in 2025; 53 mortalities (1.2%)
- Five different anadromous streams
- Due to drying, debris flow threats, trapped at barriers

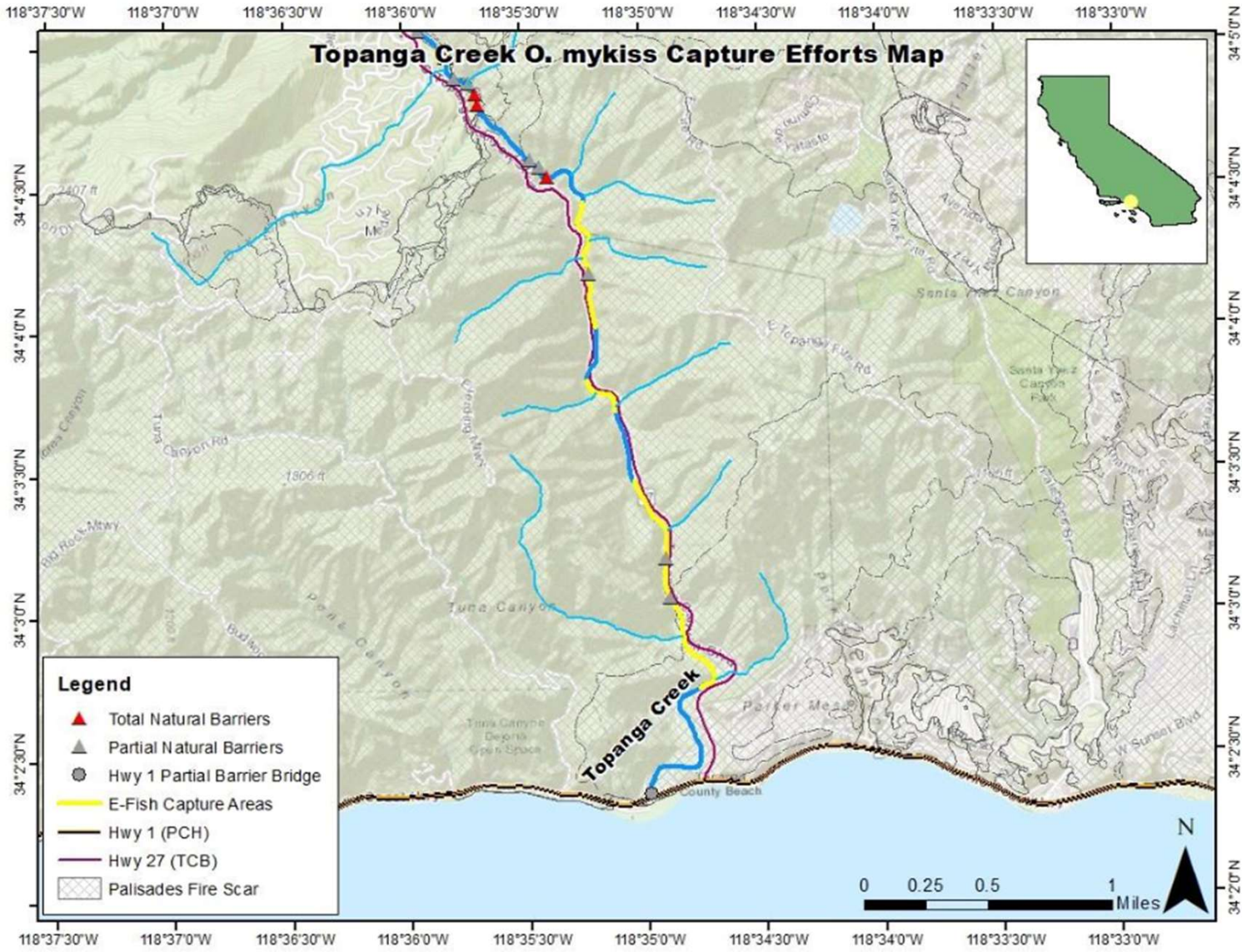
Slide 10

CS1 Maybe this can go after the Rescue Process slide (slide 9)?
Shen, Chenchen@Wildlife, 2025-11-24T20:46:13.080

Example

Topanga Creek Threats

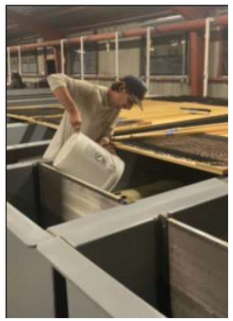
- Topanga Creek was the only Santa Monica Mountains stream with *O. mykiss*
- Palisades Fire degraded habitat; rainfall threatened debris flows



Topanga Creek Rescue

Topanga Creek Rescue

- Five distinct entities contributed to a one-day event
- 271 individual O. mykiss were collected on 1/23/25
- Fish held at Fillmore Hatchery



Endangered Southern California Steelhead Trout Rescued from Fire-Impacted Topanga Creek

February 4, 2025

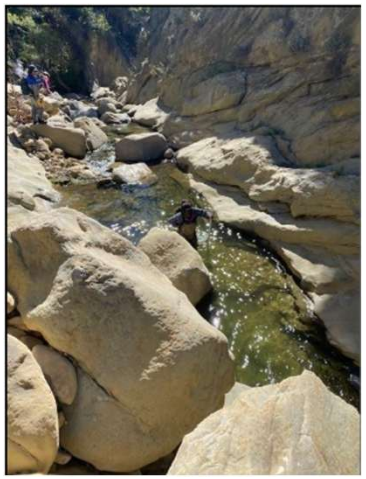
Temporary Relocation Will Safeguard the Last Santa Monica Mountains Population from Post-fire Storm Impacts

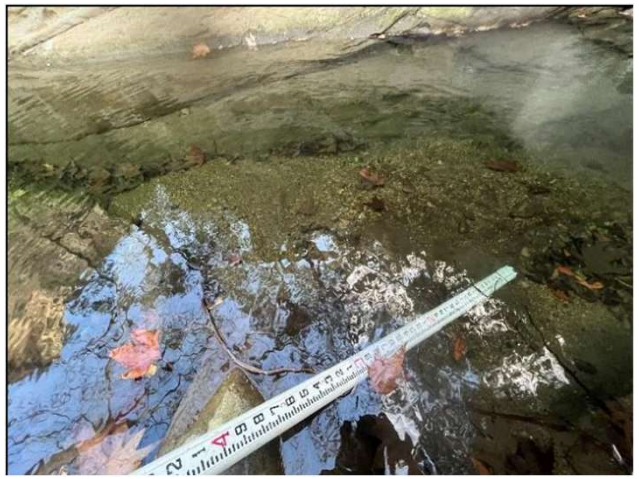
Media Note: A link to download photos and video.

Watch CDFW's video about the Topanga Creek steelhead trout rescue.

As part of statewide efforts to help Californians and wildlife recover from the Southern California fires, on Jan. 23 the California Department of Fish and Wildlife (CDFW) and its partners rescued 271 endangered Southern California steelhead trout (Oncorhynchus mykiss) from Topanga Creek, the last known

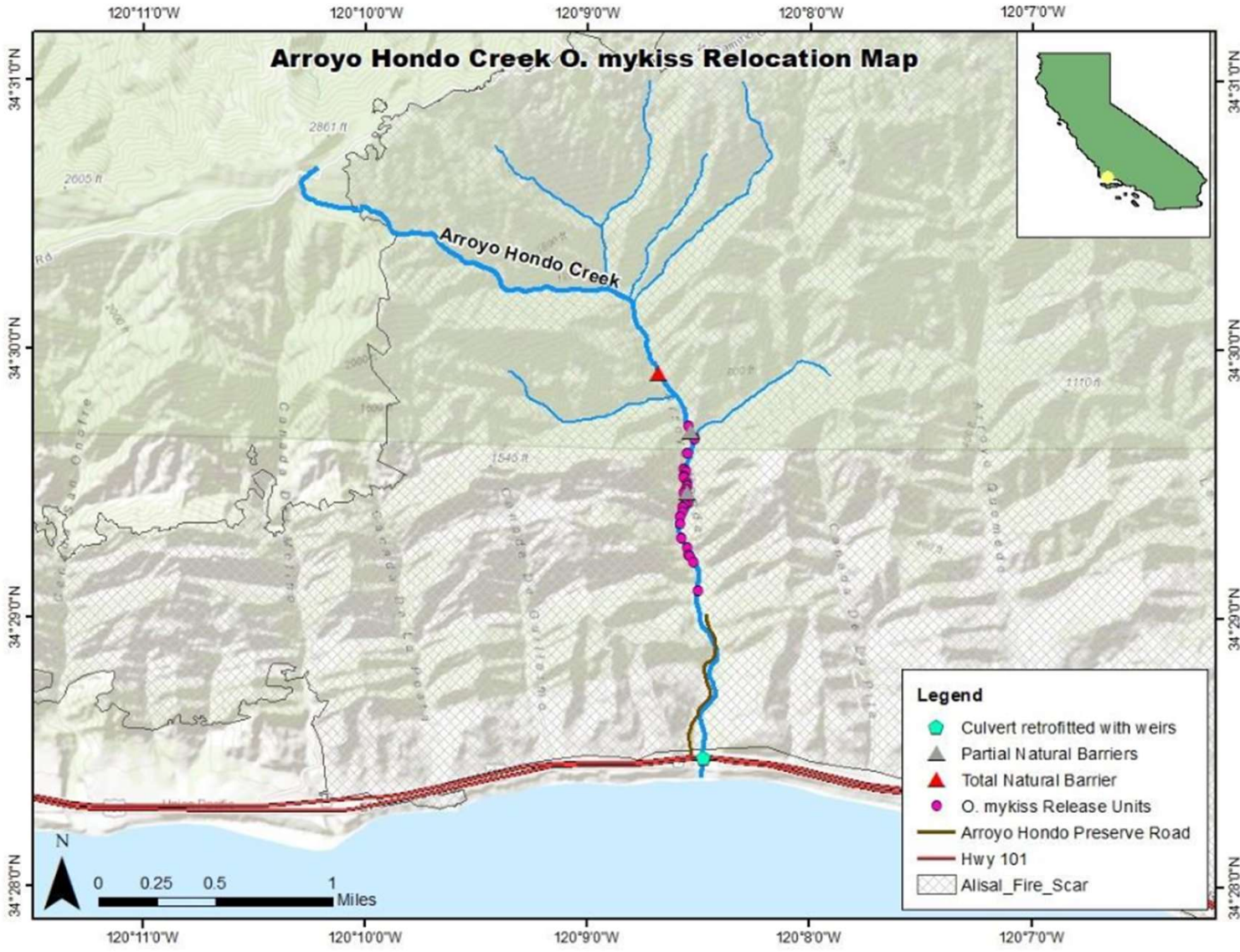
Arroyo Hondo Release





- Multiple streams considered; Arroyo Hondo selected based on:
  - Historical trout populations but extirpation due to fire effects
  - Rainfall/water conditions
  - Level II habitat assessment confirmed suitable and complex habitat
- 259 O. mykiss relocated to Arroyo Hondo Creek on 2/10/25

Arroyo Hondo Release



Current Conditions

- Arroyo Hondo
  - Fish dispersal
  - No redds observed but YOY present
  - PIT tag arrays did not detect migration but visual obs saw fish in estuary
- Topanga Creek
  - *O. mykiss* observed in upstream portions of anadromy
  - Habitat still highly degraded
- Continue to monitor

Looking Forward

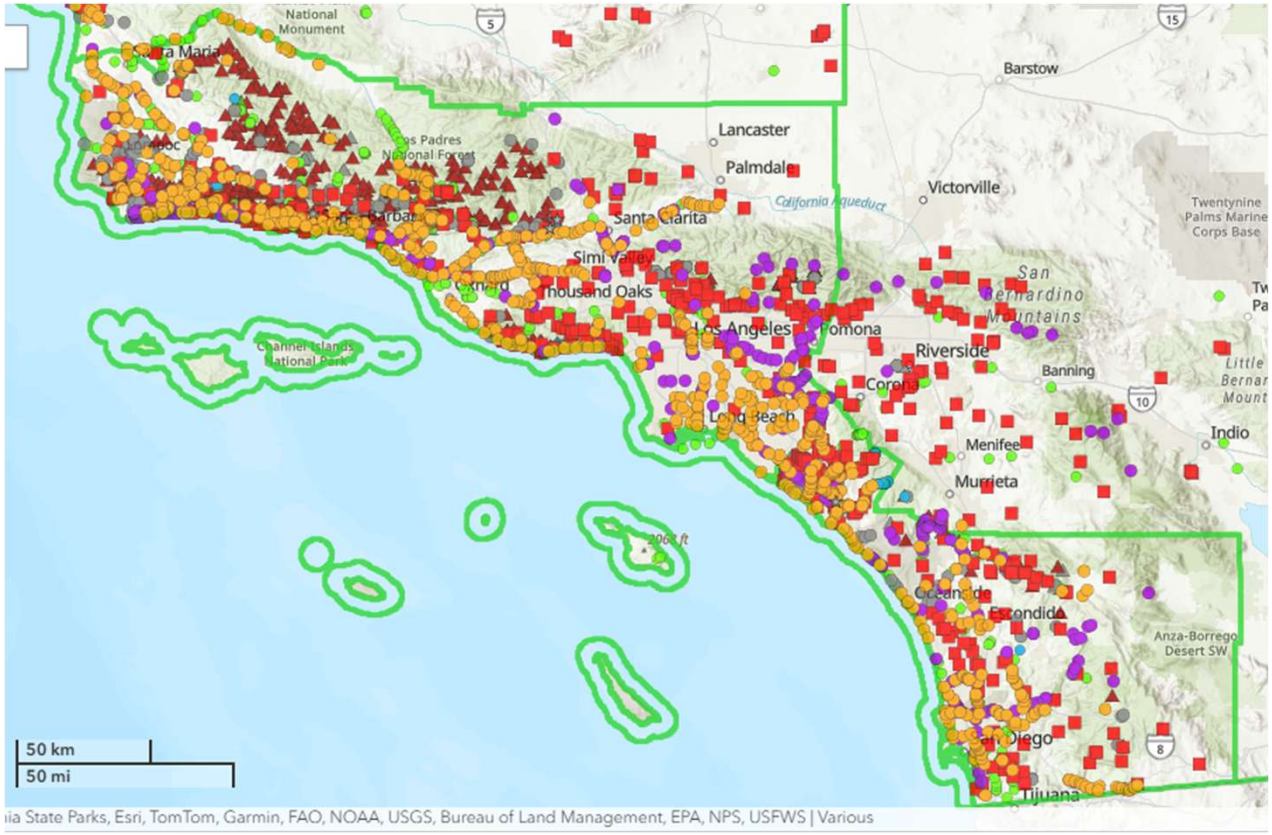
Improving Pre-Rescue Process

- Online form with standardized info
- Streamline pre-rescue reports from the community for better workload management
- Analyze historic rescue records to predict “hot spots” and stressors
- Enable proactive planning and coordination

Long-Term Solutions

- Measure effectiveness to support allocating resources to continue rescues
- Focus on "hot spots" for fish passage barrier removal, habitat restoration, and resolving water use issues

Conclusion



- Rescue and relocation is a collaborative, deliberative process
- Used as the last option, only if fish are in imminent peril
- Does not replace long-term, preventative solutions to connectivity and population goals