Livestock Pond Restoration and Habitat Management on Private Grazing Lands to Benefit the California Red-Legged Frog and California Tiger Salamander

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Project Partners
USDA Natural Resources Conservation Service
Alameda County Resource Conservation District
US Fish & Wildlife Service
Environmental Defense

Also Supported By
National Fish & Wildlife Foundation
California Coastal Conservancy
Pacific Gas & Electric Company
California red-legged frog (CRLF)  
*Rana draytonii*

California tiger salamander (CTS)  
*Ambystoma californiense*
Remaining rangelands are core habitat for CRLF and CTS
Natural Habitat Diminishing

- Natural habitats (creeks and vernal pools) have been altered or lost to urbanization and conversion of open space to crops and ranchettes.

- Increased and changing land use pressures throughout the state reflected in population growth figures for Alameda County:

  1900  130,197  
  1950  740,315  
  2000  1,416,006
California Red-legged Frog

Historic Distribution

Current Distribution

From USFWS Recovery Plan for the Cal. Red-legged Frog
California Tiger Salamander

Historic Distribution

Current Distribution
CRLF & CTS Depend on Ranching

Remaining habitat mostly ranches and grazed public lands where ranchers are lessees
CRLF & CTS Depend on Ranching

Livestock ponds on public and private rangeland have become crucial aquatic habitat for CRLF & CTS
Livestock Ponds as Habitat

- Approximately **800** ponds built in Alameda County between 1950s-1970s for livestock water
- Most were built on private land
- Most were built with assistance from NRCS (formerly SCS)

- Substitute for lost natural breeding habitat
Ponds in Eastern Alameda County
Ponds Today

- Built to last 20 years, now 30-60 yrs old
- Many won’t be around much longer unless repaired

Spillway Erosion

Pond Sedimentation
Pond Repair and the Rancher

- Ranchers don’t need to fix these ponds – they have alternative sources of livestock water (springs, tanks, and troughs).

- Many ranchers still want to fix ponds for backup water supplies for cattle & fire, wildlife, aesthetic value & historical connections.

- There are a lot of challenges for ranchers when faced with restoring livestock ponds…
Challenges to Fixing Ponds

- **Cost** – repair projects cost $10,000-$50,000+
Challenges to Fixing Ponds

• **Cost**

• Pond repairs require 6 environmental permits and put ranches under the magnifying glass of regulatory agencies
Challenges to Fixing Ponds

- Cost
- 6 environmental permits
- Ranchers’ fear of new land use restrictions that could come from voluntary restoration
Challenges to Fixing Ponds

- Cost
- 6 environmental permits
- Ranchers’ fear of new land use restrictions
- **Lack of incentive** – tanks and troughs mean ranchers don’t need these ponds for livestock water
Challenges to Fixing Ponds

- Cost
- 6 environmental permits
- Ranchers’ fear of new land use restrictions
- Lack of incentive
- Lack of technical guidance
  - there are NRCS standards and specs for pond repair, but not specifically for frog and salamander habitat
  - Lack of guidance for grazing to benefit species
Helping Ranchers Address Challenges

• The California red-legged frog and California tiger salamander depend on livestock ponds and the surrounding rangelands.

• We want to make it easier and more desirable for ranchers to maintain ponds and uplands as habitat.
Addressing the Challenges

1. Meeting regulatory requirements
Permit Coordination
A Programmatic Approach

Federal

• U.S. Fish and Wildlife Service
• NOAA Fisheries (National Marine Fisheries Service)
• U.S. Army Corps of Engineers

State

• California Department of Fish and Game
• San Francisco Bay Regional Water Quality Control Board
• CEQA – California Environmental Quality Act (our NEPA)

County

• Alameda County Public Works Agency
Addressing the Challenges

1. Meeting regulatory requirements
2. Increasing Cost-Share Funding by Partnering with Federal and State Agencies
## Partnerships – Cost Share Assistance

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>COST-SHARE PERCENT</th>
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<tr>
<td><strong>Farm Bill:</strong> Environmental Quality Incentives Program (EQIP)**</td>
<td>50 %</td>
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<tr>
<td><strong>USFWS</strong> (Recovery, Partners, Private Stewardship) OR <strong>California Coastal Conservancy</strong></td>
<td>40 % 10 %</td>
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<tr>
<td><strong>Ranchers</strong></td>
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Addressing the Challenges

1. Meeting Regulatory Requirements
2. Increasing Cost-Share Funding through Partnering with Federal and State Agencies
3. Adapting NRCS Conservation Practices for Habitat-Focused Pond Restoration & Grazing Guidance for Upland Habitat
New Guidelines to Restore and Maintain Habitat

• **New pond restoration guidelines**
  – Started with NRCS standards and specs for pond work and habitat management
  – Worked with USFWS, Environmental Defense Fund and species experts to fine-tune specs to meet these species’ needs
New Guidelines to Restore and Maintain Habitat

- **New pond restoration guidelines**
- **Grazing guidelines**
  - Working with species and range management experts
  - Developing guidelines for grazing management to benefit frog and salamander
Main Recommendations

Ponds

- CTS – open, muddy, holds water into summer most years, <2’ deep/sloped
- CRLF – shallow open area for tadpoles, deep (>4’) vegetated area for cover and escape, holds water through summer
- Control exotic predators (bullfrogs, bass, etc.)
Main Recommendations

Pond edges

- CTS- minimal vegetation or bare ground
- CRLF- patches of vegetation -- especially if none in pond
- Hoofprints a non-issue (good refugia for both species)
Main Recommendations

Surrounding habitat
- Keep upland areas grazed
- Networks of ponds crucial
- CRLF - patches of dense veg
- CTS - maintain burrowing rodents
Tools to Help Ranchers Keep On Ranching

• **Programmatic Safe Harbor Agreement**
  – Developed by USFWS, Environmental Defense, NRCS, ACRCD
Tools to Help Ranchers Keep On Ranching

- **Programmatic Safe Harbor Agreement**

- **4(d) rule in ESA listings of CRLF and CTS**
  - Exempts routine ranching activities
  - Recognizes importance of cattle grazing and stewardship by ranchers for the frog and salamander
Tools to Help Ranchers Keep On Ranching

- **Programmatic Safe Harbor Agreement**
- **4(d) rule in ESA listings of CRLF and CTS**
- **Facilitation of Conservation Easements**
  - Restoration projects help ranchers compete for easement $ 
  - Easement Coordinator position created to help landowners understand and negotiate easements 
  - Turns listed species into assets for ranch viability
Current Status

• 10 wildlife-friendly pond projects completed
• More ponds are signed up

• Permitting is a work in progress
• Seeking more long-term cost-share
• No major outreach conducted yet
Partnerships are Crucial to Species Recovery

- Landowners are opening their gates to regulatory agencies and listed species due to incentive-based approach
- Voluntary restoration on private land requires trust between agencies and ranchers
- Non-regulatory groups can help provide the bridge and the technical tools

Rancher Tim Koopmann with a California tiger salamander from his livestock pond
Questions?
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