

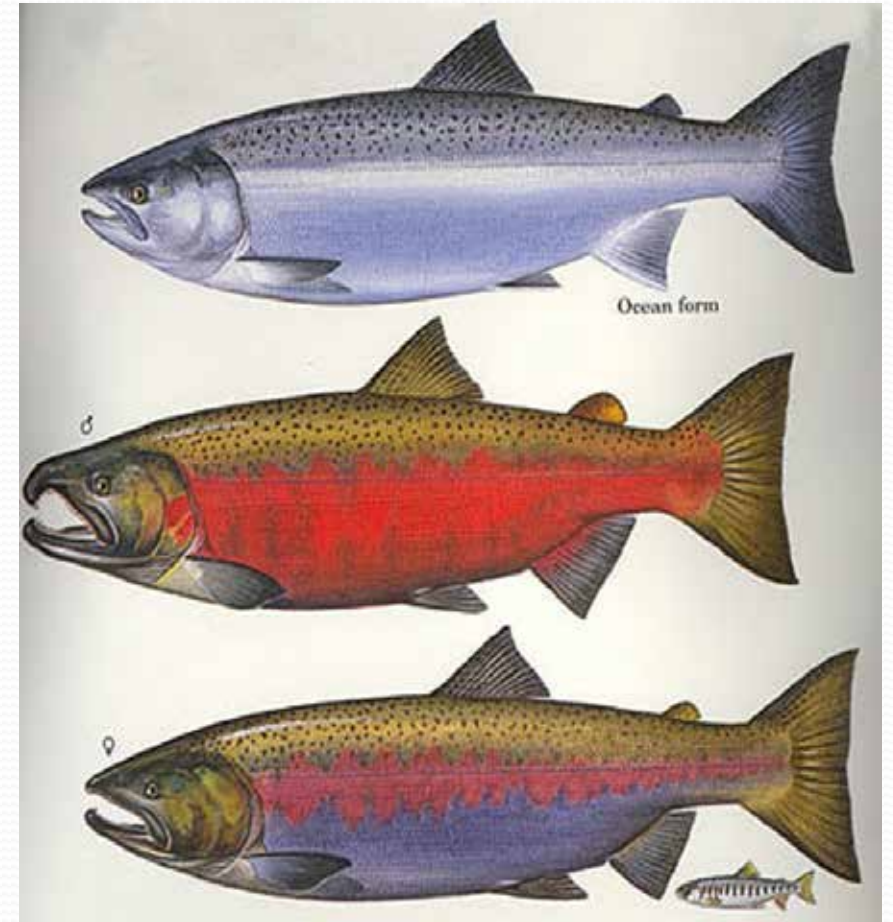
STATUS OF COHO SALMON RECOVERY IN THE CENTRAL CALIFORNIA COAST

Stephen Swales
Fisheries Branch
California Department of Fish and Wildlife



Presentation Outline

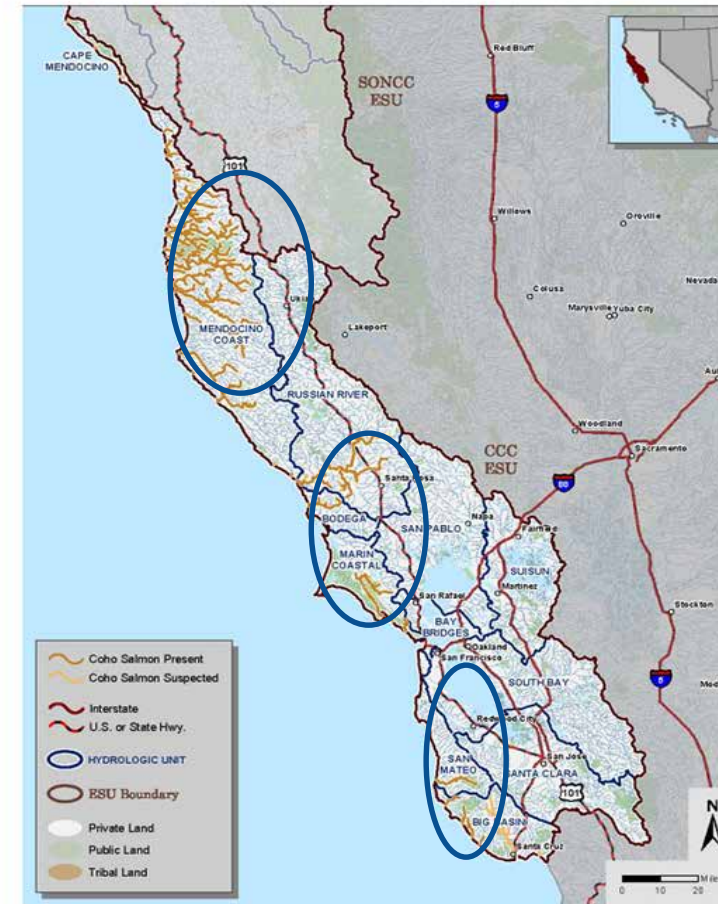
- Coho Population Status in the CCC
- State And Federal Coho Recovery Plans
- Drought and Coho recovery
- Current and New Coho Recovery Initiatives
- Priority Action Coho Team – PACT
- North Coast Salmon Project – NCSP
- Salmon Habitat and Restoration Priorities – SHaRP



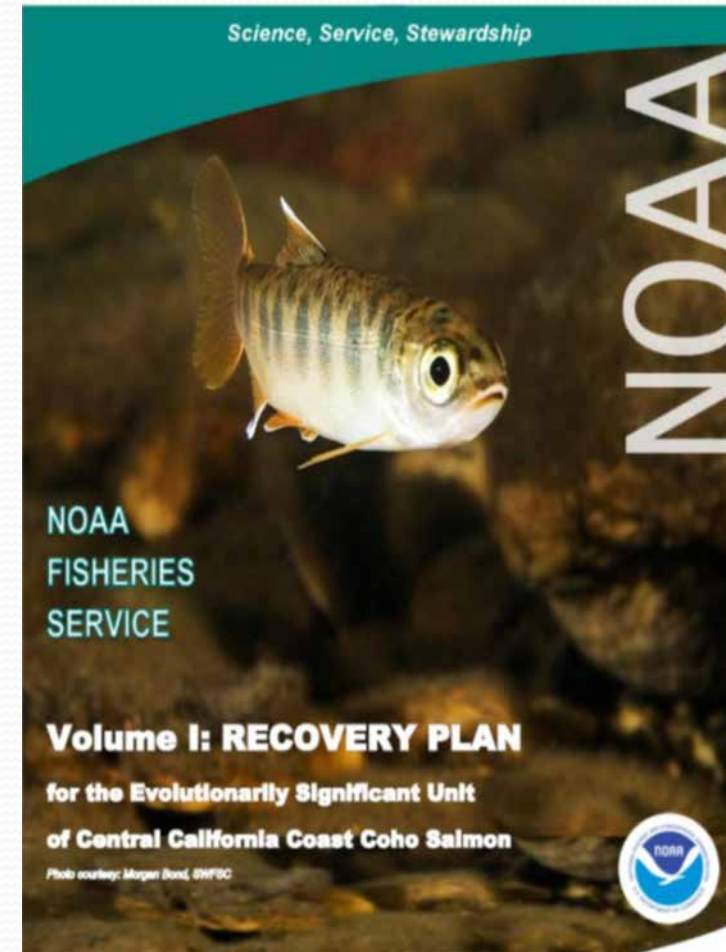
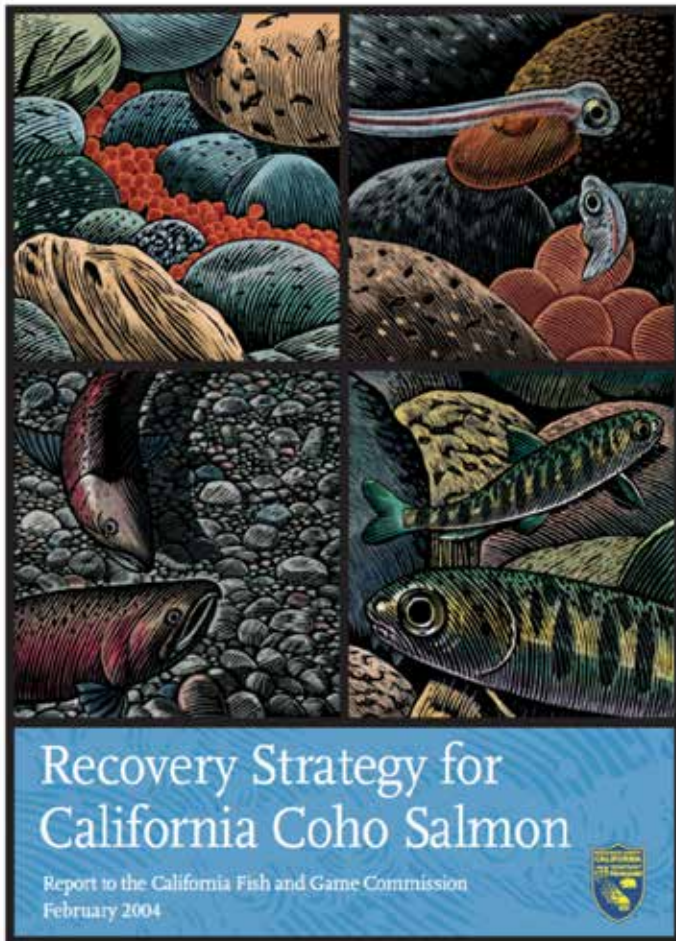
Coho Population Status in the CCC

- **South of San Francisco Bay** – virtually all populations extirpated or approaching extirpation
- **North of San Francisco Bay** – most populations declining, no robust populations remaining
- **Mendocino streams** – Some relatively robust populations e.g., Noyo R.

FIGURE 2-4: Present distribution of coho salmon in the CCC Coho ESU



Coho Salmon Recovery Plans



Current and New Coho Recovery Initiatives

- Conservation Hatchery Programs

 - Warm Springs Fish Hatchery – Russian River Captive Broodstock Program

 - Kingfisher Flat Hatchery - Monterey Bay Salmon and Trout Project

- Recovery Planning & Implementation

 - Habitat restoration (FRGP)

 - *Priority Action Coho Team (PACT)

 - *North Coast Salmon Project (NCSP)

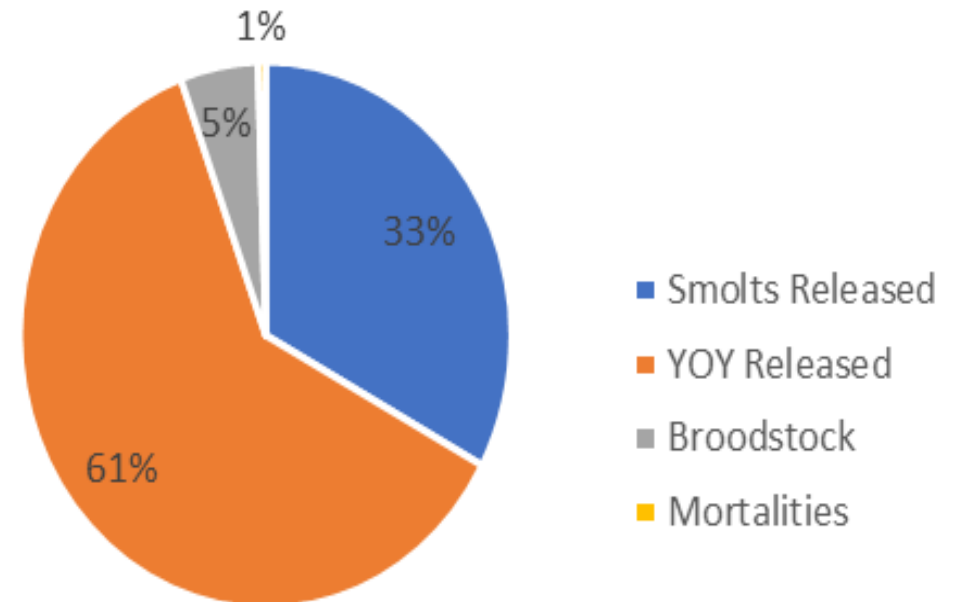
 - *Salmon Habitat and Restoration Priorities (SHaRP)

 - *Fish rescue/relocation

Coho Drought Rescues 2021 - Russian River

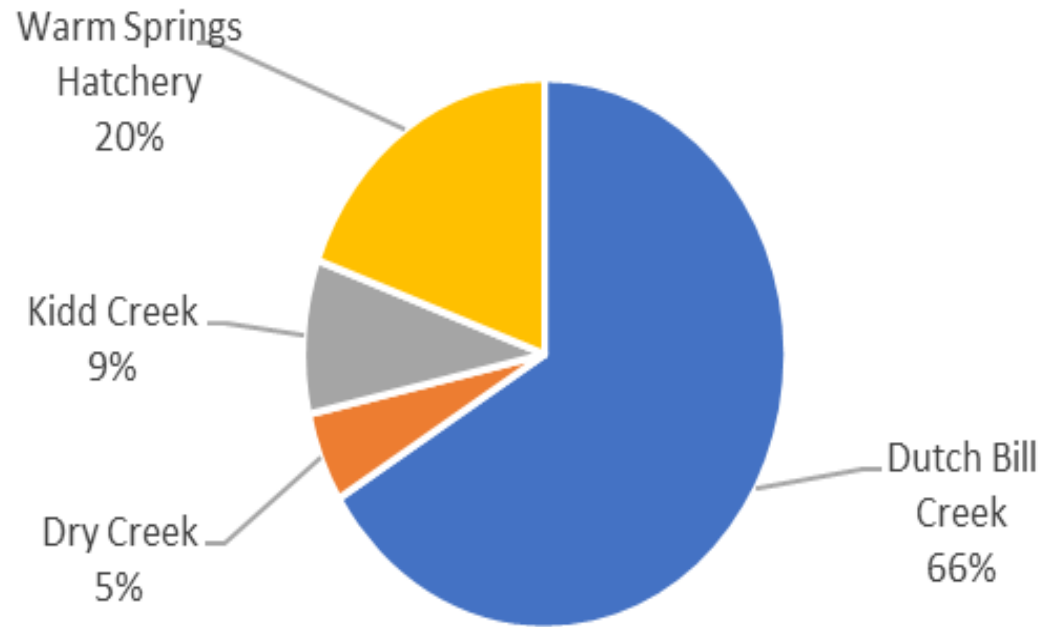
- Coho Smolts Released – 1175
- Young-of-Year Released – 2196
- Captured for Broodstock – 183
- Total Mortalities - 18

Disposition of Rescued Coho Salmon

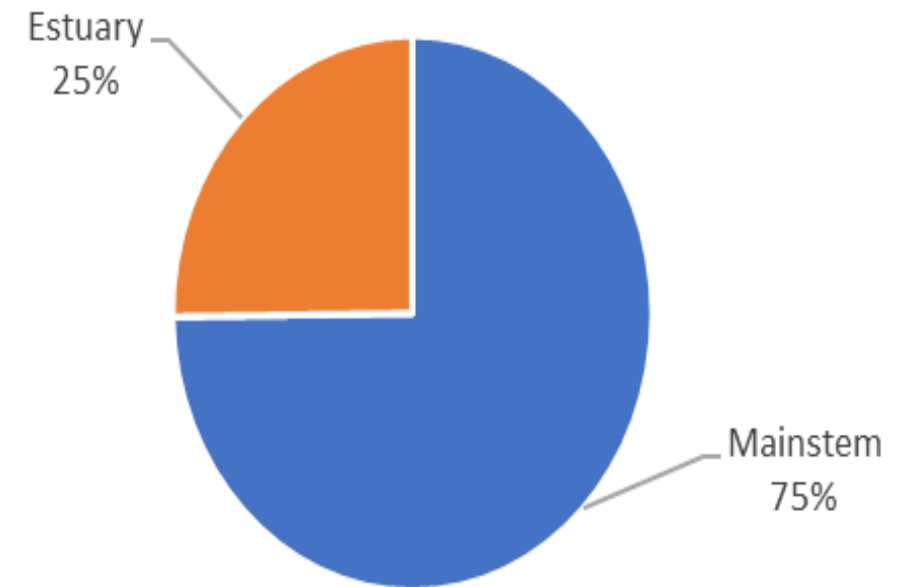


Coho Salmon Rescues - Release Locations

YOY Release Locations



Smolt Release Locations



Priority Action Coho Team (PACT)

PACT was formally established in 2011 by CDFW & NOAA

Mission is to prevent further extirpations of CCC Coho

P – PRIORITY

A – ACTION

C – COHO

T – TEAM

Inter-Agency Collaboration

Ø CDFW and NOAA Fisheries are the primary coordinating agencies

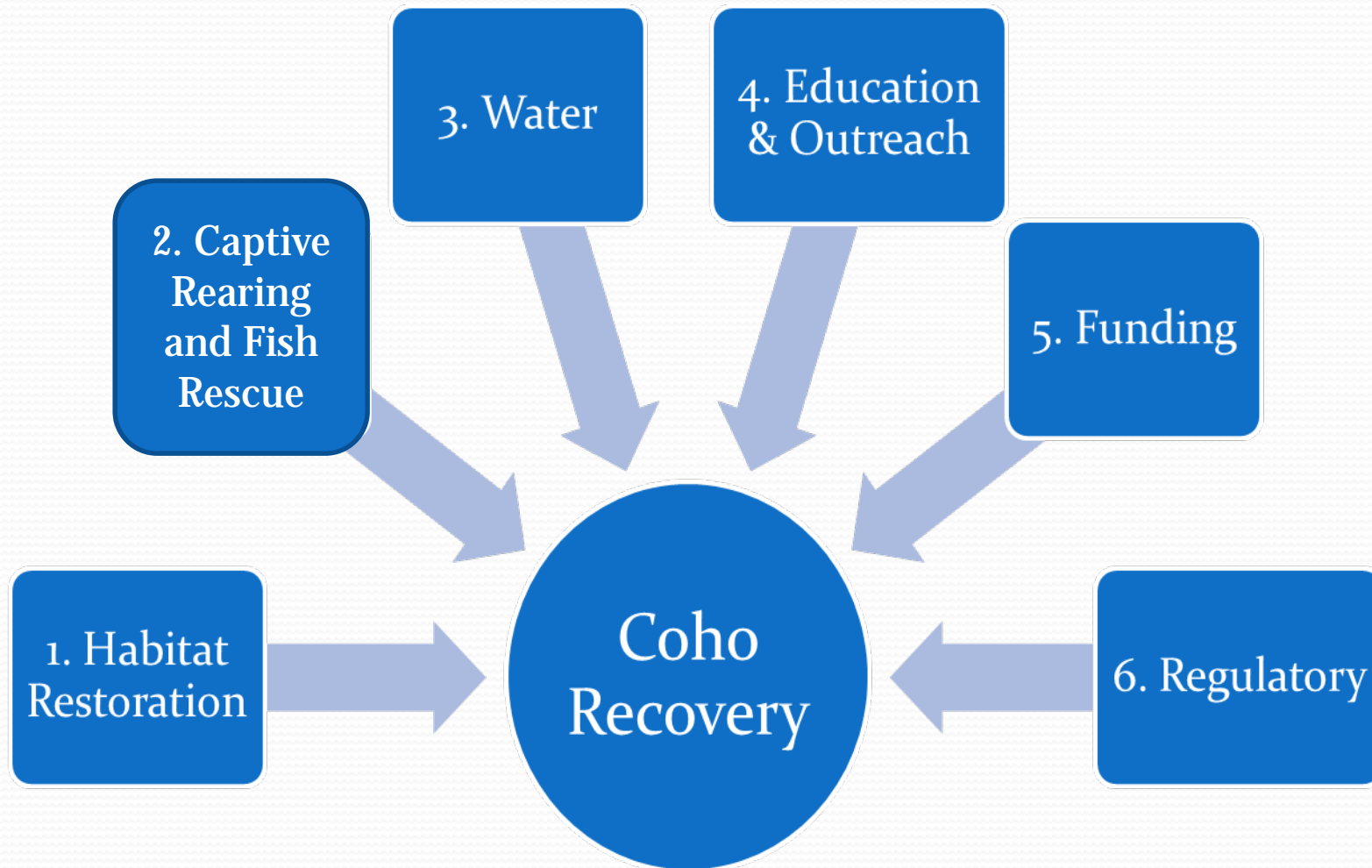
Ø Working with other agencies and stakeholders to develop the PACT program



PACT - Objectives & Function

- Ø **Objectives** - develop and implement priority short-term actions which will prevent local extirpations of CCC Coho
- Ø **Six Technical Working Groups** – developed a list of proposed recovery actions

PACT Technical Working Groups



PACT - Roles and Tasks of Technical Work Groups

- Ø **To identify** the highest priority restoration actions for immediate implementation
- Ø **To prioritize** actions which build from State and Federal recovery plans
- Ø **To report out** and produce a list of priority recovery actions for implementation

Water Flow and Conservation TWG

✓ Major aims:

1. To **develop** a list of actions that will result in immediate benefits to stream flow conditions and water quality
2. To **implement** instream flow conservation recommendations



Priority Recommendations

- Ø Improve **Instream Flow Gauging**
- Ø Implement **Instream Flow Studies**
- Ø Identify and minimize water **Diversions and Discharges**
- Ø Enhance **Summer Base Flows**
- Ø Improve **Public Outreach**

Table 7: List of Priority Actions for Watersheds South of San Francisco.

Priority Actions South of San Francisco			
Task #	Watershed	Regional Action	Site-Specific Action
W-SC-01	Scott Creek	Compliance for Permitted Diverters	Revise bypass flow conditions on existing water rights based on CDFW flow studies. Establish bypass flows below dam for Lockhead water right licenses. Establish bypass flows below CDFG hatchery
W-SC--2	Scott Creek	Regulatory Streamlining	Develop Streambed Alteration Agreement for Cal Poly diversions and establish bypass flows.
W-W-01	Waddell Creek	Minimize Illegal Diversions and Discharges	Investigate potential pollution discharge on East Waddell Creek. Survey East Waddell Creek above Last Chance Creek for illegal diversions.
W-W-02	Waddell Creek	Instream Gauging	Fund and install gauges on East Waddell, mainstem below East Waddell and above lagoon.
W-W-03	Waddell Creek	Public Outreach	Educate Last Chance Creek community on effects of diversions.
W-SV-01	San Vicente Creek	Minimize Illegal Diversions and Discharges	Investigate residential diversions in the town of Bonny Doon.
W-SV-O2	San Vicente Creek	Regulatory Streamlining	Contact Peninsula Open Space Trust and develop a Streambed Alteration Agreement for

Table 8: List of Priority Actions for Watersheds North of San Francisco.

Priority Actions North of San Francisco			
Task #	Watershed	Regional Action	Site-Specific Action
W-GV-01	Green Valley Creek Russian River)	Instream Gauging	Fund and install stream gauges to supplement a watershed-wide network.
W-GV-02	Green Valley Creek	Instream Flow Studies	Include in CDFW PRC 10004 list of priority streams for instream flow studies.
W-GV-03	Green Valley Creek	Develop Water Storage	Fund flow restoration projects that store water in winter for use in the summer.
W-GV-04	Green Valley Creek	Regulatory Streamlining	Petition the SWRB to declare Green Valley a fully appropriated stream. Develop Streambed Alteration Agreements for existing water right holders.
W-GV-05	Green Valley Creek	Minimize Illegal Diversions and Discharges	Conduct enforcement sweep of diversion screens.
W-GV-06	Green Valley Creek	Public Outreach	Provide funds and forums to educate the community on the status of Coho Salmon and the effects of diversions on them.
W-S-01	Salmon Creek	Regulatory Streamlining	Develop Streambed Alteration Agreements for existing water right holders.
W-S-02	Salmon Creek	Minimize Illegal Diversions and Discharges	Conduct enforcement sweep of diversion screens. Survey Fay, Tannery and Coleman Creeks for illegal diversions.
W-S-03	Salmon Creek	Instream Gauging	Fund and install stream gauges to supplement a watershed-wide network.

PACT 2019 REPORT

- Ø PACT 2019 report - released March 2020
- Ø Produced by CDFW and NOAA Fisheries
- Ø Many stakeholders involved
- Ø Lists recommendations made by six TWGs
- Ø Addendum Report – tasks completed - in preparation

Priority Action Coho Team:
Strategic Partnering to Accelerate
Central California Coast Coho Salmon
Recovery

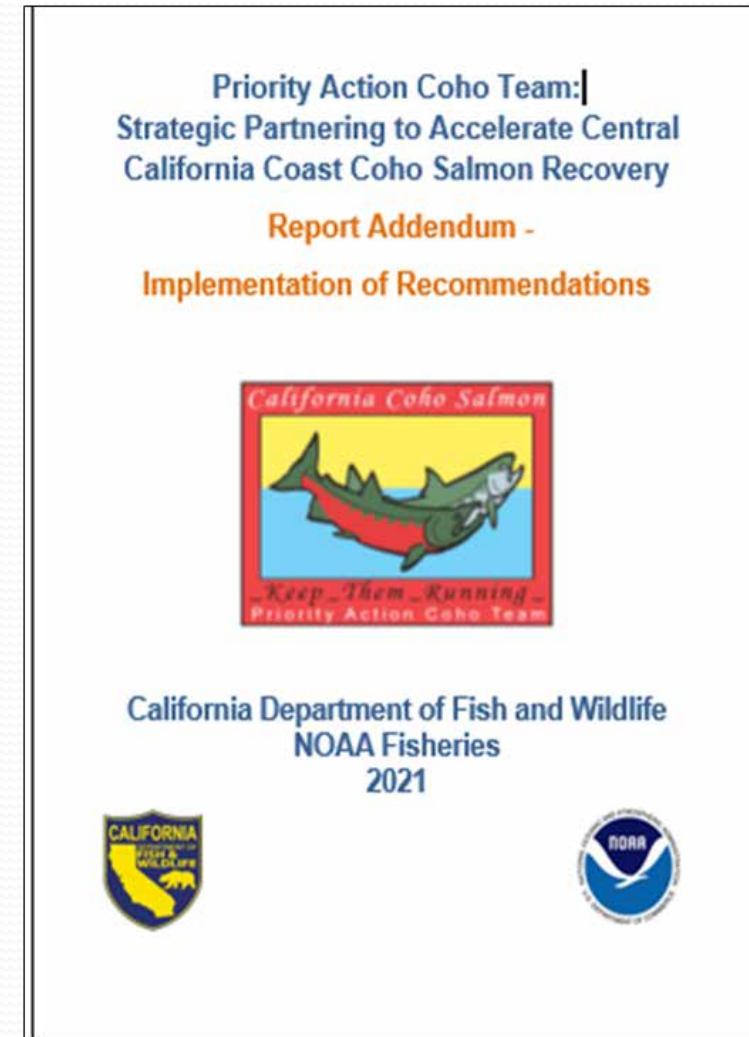


California Department of Fish and
Wildlife
NOAA Fisheries
2019



PACT - Next Steps

- Ø Release of Addendum report
- Ø Regional meetings with stakeholders and the public
- Ø Focused implementation of targeted actions
- Ø Integrate with other Coho recovery plans e.g. NCSP, SHaRP
- Ø More Coho!



North Coast Salmon Project

- Developed in 2018 through the Sustainable Funding BCP
- Collaborative project with agencies and stakeholders... focused on enhancing the recovery of CESA-listed Coho Salmon on California's North Coast



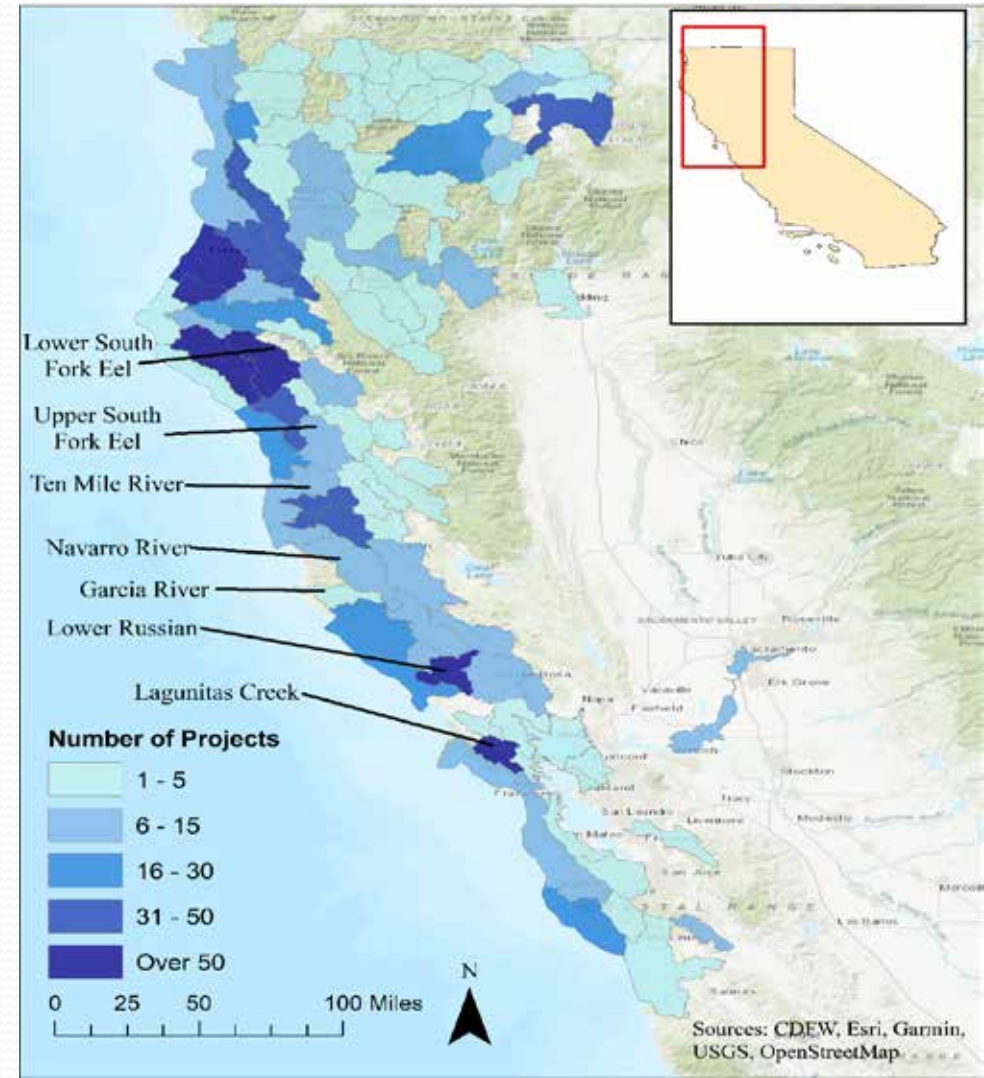
Project Goals

1. Evaluate effectiveness of past recovery efforts
2. Identify actions to expedite and enhance Coho Salmon recovery
3. Provide recommendations on how CDFW programs can further support Coho Salmon recovery
4. 2021 report: Assessment of Restoration Projects...available soon.



Restoration Projects in NCSP Focus Areas

- Assessment of number and types of restoration projects funded for Coho Salmon Recovery 2004-2018
- Detailed analysis of alignments of funding and CDFW priorities for Coho Salmon recovery
- Analyzed range-wide and watershed specific trends in grant funding
- Developed recommendations for how CDFW grant programs can improve implementation of projects that address highest priorities



Salmonid Habitat Restoration Priorities

SHaRP

- SHaRP is a collaborative process developed by NOAA and CDFW
- A process to identify effective restoration within priority areas
- Focused vs. opportunistic site selection
- Focus limited resources on certain creeks within a watershed so resources will do the most good (e.g., where water temp, flow suitable)

Salmon
Habitat
Restoration
Priorities

SHaRP Focus Watersheds

- South Fork Eel River
- Lower Eel River
- Mendocino Coast
- Russian River
- Lagunitas Creek



SHaRP Plan & Process

1. Compile all relevant salmonid, habitat, and threat information.
2. Calculate scores for each tributary based on these data, select focus areas after extensive opportunities for public input.
3. For each focus area, carry out an Expert Panel and Action Team meeting with those with experience in the focus area.
4. Write action plan for each focus area as meetings completed.
5. Context and overall strategy + action plans = SF Eel SHaRP Plan



SHaRP 2021 Report



**Salmonid Habitat Restoration Priorities (SHaRP)
Plan for the South Fork Eel River**



<https://www.fisheries.noaa.gov/west-coast/habitat-conservation/identifying-salmon-habitat-restoration-priorities-northern#the-south-fork-eel-river-restoration-strategy>

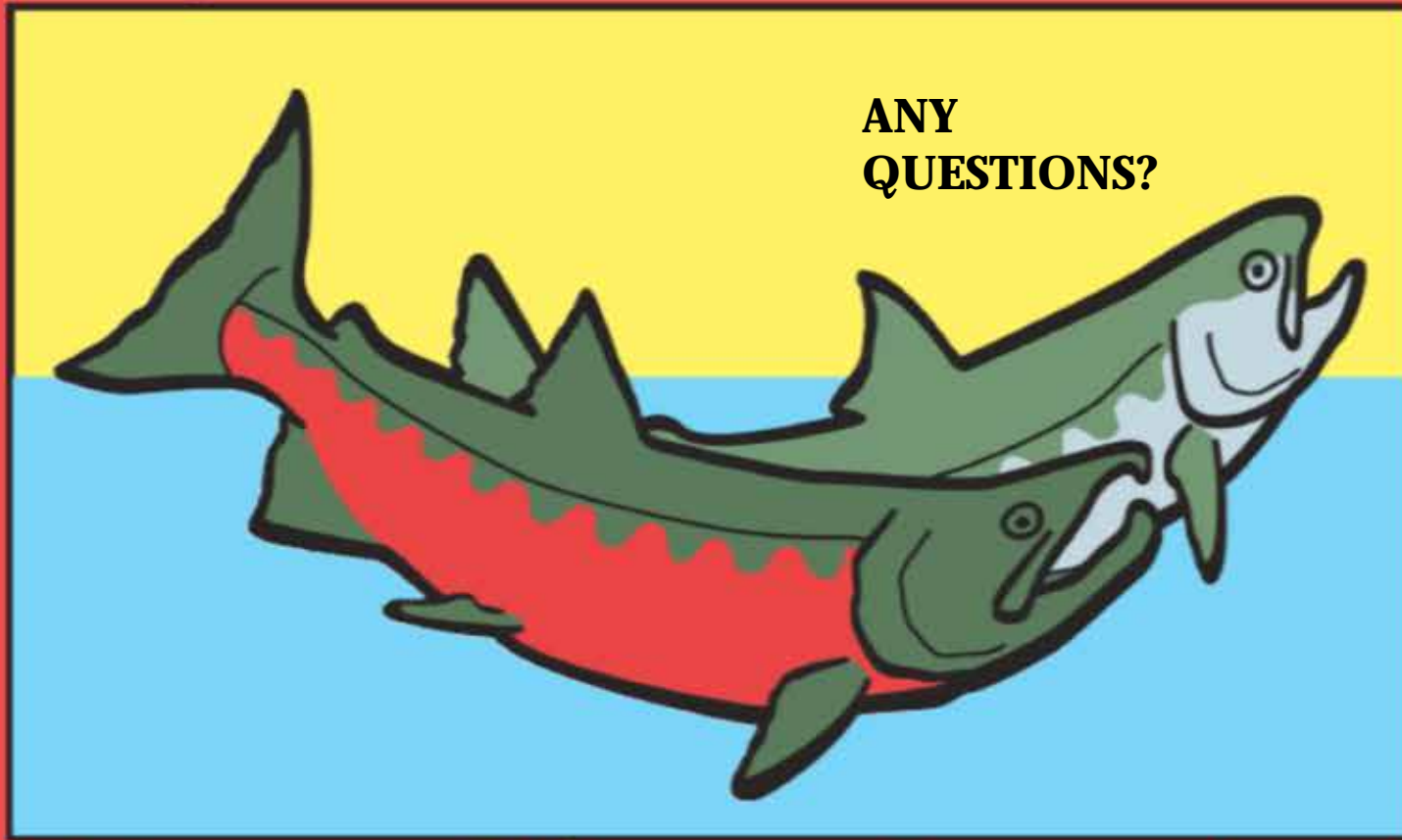
Further Information

- **PACT** – CDFW Contact person: Stephen.Swales@wildlife.ca.gov
NOAA Contact person: Erin.Seghesio@noaa.gov
- **NCSP** - CDFW Contact person: Vanessa.Gussman@wildlife.ca.gov
NOAA Contact person: Erin.Seghesio@noaa.gov
- **SHaRP** - CDFW Contact person: Allan.Renger@wildlife.ca.gov
NOAA Contact person: Julie.Weeder@noaa.gov

CDFW Web-page: <https://wildlife.ca.gov/Conservation/Fishes/Coho-Salmon>

NOAA Web-page: <https://www.fisheries.noaa.gov/species/coho-salmon>

California Coho Salmon



**ANY
QUESTIONS?**

~Keep~Them~Running~

Priority Action Coho Team