



EMERGENCY COHO SALMON RECOVERY

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The Coho Situation

- There has been an estimated 75% decline in coho spawners in monitored CCC and SONCC streams over the last 4 years
- Currently, there are estimated to be < 500 coho salmon present in the Central California Coast ESU
- At the present rate of decrease, populations in most CCC streams may soon be extirpated

Need for emergency recovery measures

- State and Federal Recovery Plans are largely focused on the successful implementation of medium and long-term recovery plans
- But, coho salmon in the CCC are on the verge of extirpation with a ~ 75% decline in the numbers of spawning adults over the last 4 years
- Recovery is a long process so short-term emergency recovery measures are needed to prevent imminent coho extirpation in the CCC ESU

Refocus & restructure recovery

- *... 'The fact that CCC coho salmon continue to decline is an indication [that] conservation efforts may need refocusing and restructuring to align with the highest priorities, to first, prevent this species' extinction, and second, for its long-term survival..'*

NOAA CCC Coho Recovery Plan, 2010

CCC Coho Salmon Emergency Recovery

- Agency meeting in DFG Yountville, June 22, 2010
- Representatives from CDFG, NOAA, NPS, Sonoma County WA, SPAWN, San Francisco WB, MMWD, FishNet4C

Meeting goals and objectives

- **Goal:** To prevent the extirpation of coho salmon in the CCC ESU
- **Meeting objectives:**
 1. To establish inter-agency working groups to implement coho salmon recovery in the CCC ESU
 2. To discuss the initiatives which can be taken to achieve the above

Refocused emergency measures

- Improve regulatory enforcement
- Target habitat restoration
- Expand conservation hatchery/rescue/captive rearing programs
- Improve public awareness
- Conservation of instream flows
- Increase funding for coho recovery

CCC Coho Emergency Recovery - Technical Working Groups

1. Priority habitat protection/restoration (DFG, NOAA, NPS, SPAWN, MMWD, SCWA, SFRWQCB)
2. Education/outreach (DFG, NOAA, NPS, SPAWN, MMWD)
3. Captive rearing/conservation hatcheries/rescue rearing (DFG, NOAA, NPS, SPAWN, MMWD, SCWA, USACE, PSMFC)

Technical working groups (in prep..)

4. Permitting/law enforcement/fishing regulations
5. Instream flow conservation
6. Funding sources

Potential emergency recovery measures

Recovery effort	Results	Comments
1. Do nothing	Coho populations will continue to decline to the point of extirpation, possibly within 10 years or less.	Not an option

Recovery effort	Results	Comments
2. Identify core coho streams for priority targeted habitat restoration	Short-term removal of bottlenecks for coho production	Feasible

Recovery effort	Results	Comments
3. Enlarge existing conservation hatchery facilities	Would allow captive breeding programs for other source streams e.g. Lagunitas Creek	Very costly – significant funding required – success not guaranteed

Recovery effort	Results	Comments
4. Construct additional conservation rearing facilities	Would allow captive breeding programs to be developed for other streams	Very costly – significant funding would be required – success not guaranteed

Recovery effort	Results	Comments
5. Translocate eggs/juveniles/adults from source streams to high priority core streams	Would provide an additional population source for re-establishing high priority streams	Possible adverse genetic consequences for recipient stock. Probably difficult to locate suitable donor stock

Recovery effort	Results	Comments
6. Increase the level of law/regulation/p ermitting enforcement to provide extra protection for remaining stocks	Increased protection for high priority core streams at risk	Feasible

Recovery effort	Results	Comments
8. Initiate public/government education & outreach programs	Would emphasize the need for emergency actions to prevent stock extirpation	Success not certain – budget constraints a significant limitation?

Recovery effort	Results	Comments
9. Emphasize barrier removal in core streams to improve access to spawning and rearing areas	Increased adult spawning and juvenile recruitment	Feasible

Recovery effort	Results	Comments
10. Initiate a moratorium on incidental take permits	Eliminate possible source of fish mortality	Feasible?
11. Enforce new Forestry Regulations - Anadromous Salmonid Protection Rules	Improved habitat conditions and improved fish production	Feasible?

Summary of DFG Emergency Measures for CCC Coho Salmon

Recovery

- Establish inter-agency CCC coho recovery working groups to:
- Establish and implement a list of priority habitat restoration programs
- Investigate the possibility of enlarging existing conservation hatchery facilities at Warm Springs and Big Creek
- Discuss the role of Law Enforcement and Permitting in immediate coho recovery actions for the CCC
- Initiate public and government outreach & education programs

What is the role of the State Coho Recovery Team in this new initiative?

- Do more agencies wish to participate? If so, in what role?
- Would CRT members like to volunteer to lead working groups?
- Should the CRT meet more frequently?
- More thoughts?

....more leaping coho....

