

Central CA Coast Coho Salmon ~ Lost Coast Diversity Stratum

ACTIONS FOR RESTORING HABITATS

1. Restoration- Estuary

1.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

1.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Estuaries

2. Restoration- Floodplain Connectivity

2.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

2.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Floodplain Connectivity

3. Restoration- Habitat Complexity

3.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

3.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Habitat Complexity

4. Restoration- Hydrology

4.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

4.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Hydrology

5. Restoration- Landscape Patterns

5.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of the species habitat or range

5.1.1. **Recovery Action:** Reduce adverse impact to landscape patterns

5.1.1.1. **Action Step:** Strongly encourage Mendocino County (including cities and local jurisdictions) to take a leadership role and work with their various departments on permitting, road maintenance, ordinances, etc., to reduce the ongoing impacts of urbanization, agriculture, road building, grading activities, timber conversions, etc., to salmon and their habitats. Mendocino County supports over 85% of remaining populations of CCC coho salmon.

- 5.1.1.2. **Action Step:** Facilitate as soon as possible mechanisms to promote sustainable forestry practices and reduce forest conversions including development of protective county ordinances.
- 5.1.1.3. **Action Step:** Continue discussions between agencies, non-profits, landowners and others in the Wood for Salmon forum to implement wood enhancement projects and seek permit streamlining solutions.
- 5.2. **Objective:** Address the inadequacy of existing regulatory mechanisms
 - 5.2.1. **Recovery Action:** Reduce adverse impact to landscape patterns
 - 5.2.1.1. **Action Step:** Evaluate benefits of designating watersheds, or sections thereof, as Wild and Scenic Rivers pursuant to The National Wild and Scenic rivers systems (16 U.S.C. 1271 et seq). Watersheds for potential inclusion could include, but are not limited to: lower Ten Mile River and lower Big River.
 - 5.2.1.2. **Action Step:** Work with Mendocino County District Attorney to address environmental crimes that adversely impact coho salmon and/or their habitat.

6. Restoration- Passage

- 6.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range
 - 6.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Passage

7. Restoration- Pool Habitat

- 7.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range
 - 7.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Habitat Complexity

8. Restoration- Riparian

- 8.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range
 - 8.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Riparian Vegetation

9. Restoration- Sediment

- 9.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range
 - 9.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Sediment

10. Restoration- Viability

10.1. **Objective:** Address other natural or manmade factors affecting the species continued existence

10.1.1. **Recovery Action:** Increase density, abundance, spatial structure and diversity

10.1.1.1. **Action Step:** Evaluate and conduct nutrient enrichment projects to improve freshwater growth and increase smolt escapement utilizing available carcasses from hatcheries and other methods (e.g. salmon analogs).

10.1.1.2. **Action Step:** Salmonid monitoring in this Stratum is a high priority and long-term funding, for the continuation of current programs and their expansion, should be secured.

11. Restoration- Water Quality

11.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

11.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Water Quality

THREAT ABATEMENT ACTIONS

12. Threat- Agricultural Practices

12.1. **Objective:** Address the present of threatened destruction, modification, or curtailment of habitat or range

12.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Agriculture

13. Threat- Channel Modification

13.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

13.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Channel Modification

14. Threat- Disease/Predation/Competition

14.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

14.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Disease, Predation and Competition

15. Threat- Fire/Fuel Management

15.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

15.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Fire and Fuel Management

16. Threat- Fishing/Collecting

16.1. **Objective:** Address the inadequacy of existing regulatory mechanisms

16.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Fishing and Collecting

17. Threat- Hatcheries

No species-specific actions were developed.

18. Threat- Livestock

18.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

18.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Livestock

19. Threat- Logging

19.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of the species habitat or range

19.1.1. **Recovery Action:** Prevent forest conversions to other landuses and improve forest conditions throughout the watershed

19.1.1.1. **Action Step:** Finalize Mendocino Redwood Company HCP.

19.1.1.2. **Action Step:** Encourage development of a HCP/NCCP/GCP or Safe Harbor with forestland owners with Jackson Demonstration State Forest, State Parks, The Conservation Fund, Coastal Ridges, Redwood Forest Foundation, and Hawthorne Timber Company.

19.1.1.3. **Action Step:** Work with California BOF, CalFire, CDFG, professional organizations and landowners to protect forest lands from conversion, promote sustainable forestry practices and provide landowner incentives for growing late seral forests in riparian areas and conducting restoration actions.

19.1.1.4. **Action Step:** Work with the BOF, CalFire, CDFG, professional organizations and landowners to modify the timber harvest permitting process to provide

opportunities and incentives for LWD recruitment during timber harvest operations.

20. Threat- Mining

No species-specific actions were developed.

21. Threat- Recreation

21.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

21.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Recreation

22. Threat- Residential/Commercial Development

22.1. **Objective:** Address the inadequacy of existing regulatory mechanisms

22.1.1. **Recovery Action:** Prevent adverse alterations to riparian species composition and structure

22.1.1.1. **Action Step:** Encourage Mendocino County to develop and implement ordinances (e.g. Santa Cruz County Code 2008) to restrict subdivisions by requiring a minimum acreage limit for parcels in concert with limits on water supply and groundwater recharge areas.

23. Threat- Roads/Railroads

23.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

23.1.1. **Recovery Action:** Prevent impairment to instream substrate/food productivity (gravel quality and quantity)

23.1.1.1. **Action Step:** The threat of roads rated the highest for this Stratum. Road effects to salmon and their habitats must be controlled by county-wide road management planning for mainline transportation, rural residential and other road corridors.

24. Threat- Severe Weather Patterns

24.1. **Objective:** Address other natural or manmade factors affecting the species' continued existence

24.1.1. **Recovery Action:** The threat of severe weather was found high across 5 populations. A regional severe weather plan should be developed that addresses proactive measures for climate change and a drought/flooding management and response plan.

25. Threat- Water Diversion/Impoundment

25.1. **Objective:** Address the inadequacy of existing regulatory mechanisms

25.1.1. **Recovery Action:** Improve flow conditions

25.1.1.1. **Action Step:** Petition SWRCB to declare CCC coho salmon watersheds with existing populations and ongoing diversions in the Lost Coast Diversity Stratum declared as fully appropriated during the summer months. Encourage water right applications for existing rights holders who seek to shift the timing or manner of diversion from a less protective to more protective practice.

26. Threat- Watershed Process

26.1. **Objective:** Address the present or threatened destruction, modification, or curtailment of habitat or range

26.1.1. **Recovery Action:** Implement ESU and population level recovery actions for Watershed Processes