



# Central Coast Forest Association

*Caring for forests, protecting our land*

PO Box 1670, Capitola, Ca 95010

## Directors

Brian Campbell

Ron DeBenedetti

Pat Driscoll

Jim Hildreth

Barbara McCrary

Cate Moore

Eric Moore

Jim Moore

Gary Paul

Doug White

12 June 2010

to: National Marine Fisheries Service  
Protected Resources Division  
777 Sonoma Ave, Room 325  
Santa Rosa, CA 95467

from: Central Coast Forest Association  
P. O. Box 1670  
Capitola, CA 95010

re: Recovery Plan for the Evolutionary Significant Unit of Central California Coast Coho Salmon

Dear staff members of the Salmon Recovery Plan,

The Central Coast Forest Association (CCFA) is an organization comprised of forest landowners, resource professionals and others concerned with forest issues and land use policy in the Central Coast region of California. We represent 75 active forest landowners in the Central California Coastal area.

The National Marine Fisheries Service has developed a recovery plan for coho salmon for the state of California and has presented it for general review and comment. The date used in this study as a baseline for comparison between the past and the present was 1940.

CCFA has many reasons to believe that coho salmon are not sustainable in our waters without a tremendous commitment to actively supporting them throughout their life cycle. No matter what date is chosen as a baseline, the geology and climate of the Santa Cruz Mountains does not meet the basic needs of coho salmon on a permanent basis; the mountains are highly erosive and produce silt and sand rather than gravel. During the summer, most streams dry up to a trickle; during the winter, we are subject to flash floods interspersed with dry spells that allow sand bars to form at the mouth of streams. None of these conditions are conducive to a healthy population of coho salmon.

These environmental deficiencies cannot be addressed through any form of a hands-off approach; NMFS and their agents must be prepared to be very proactive for the foreseeable future or coho will never survive in our streams.

Given the nature of our environment, we need to start with questioning the use of 1940 as a reasonable baseline for determining the appropriate sustainable coho population for Central California Coast streams. In the three years preceding 1940, the country was still suffering through the Great Depression and the historical record shows that the fish hatcheries were very active and fully funded by the Civilian Conservation Corps. This produced a very artificial environment with these hatcheries releasing record numbers of smolts. This heavy stocking regimen is the only reason there was sustainable coho population in Central Coast streams. Any thought that there might be some sort of significant genetic flavor to the local fish must be dismissed, since the brood stock for these hatcheries was recorded to have come primarily from Washington State, Oregon and northern California.

("Assessment of the Southern Range Limit of North American Coho Salmon: Difficulties in Establishing Natural Range Boundaries", Kaczynski and Alvarado, Fisheries Magazine, August 2006)

It is well known that coho salmon have a very rigid three year life cycle. They spawn in fresh water, go to sea to grow and mature, then return to fresh water to spawn and die. If they cannot get back into their spawning streams on their schedule, they die without reproducing, thus losing that year's breeding stock for that location. With an invariable three year cycle, we are talking about 1/3 of the stream's population at risk in one shot. This is unsupportable in the long term. If coho are to be cultivated in our streams, NMFS must commit to keeping their selected coho-bearing streams open to the sea during spawning season and during the period that the smolts go to sea. This means NMFS will need to find some way to dredge the mouths of these streams, since sand bars frequently form there.

Even if the stream mouths are clear, NMFS must recognize that the central coast is also much more subject to drought cycles than the north coast. Somehow, NMFS must work to ensure that there is water flowing in these streams, even during droughts.

The watersheds must be managed to favor ground water retention over vegetation. According to "Tree Farmer" magazine , (DeCoster and Herrington, 1988):

*" A medium sized tree (40-50 feet tall) will take 10,000 gallons (83,000 pounds) of water from the soil in a growing season."*

That water does not return back to the soil. The tree draws it up and releases it to the atmosphere when it is done. It will not get replenished until the rains begin once more in October or November. Ten thousand gallons per tree multiplied by all of the trees in a watershed adds up to a tremendous amount of water. This figure is also represents a very modestly sized tree when one is talking about the trees of a redwood forest. Redwoods routinely grow well over one hundred feet tall, are among the fastest growing of tree species, and use commensurately more water. Reducing the vegetation stocking will release much of this water back to the streams.

Once we get the water back into the streams, we must then address the structure of the stream itself. Research suggests that these streams need several features: deep, cool pools, gravel beds, places where the water gets aerated. The stream and its banks need to provide habitat for not merely the salmon, but also its food. Once again, we are not going to get these features by just standing back and letting nature work unaided. The Central Coast geology is based on shales, sandstones and mudstones. Erosion action in these rocks produces sand and silt far more often than it produces gravel beds. We are going to have to get into those streams and aggressively terra-form sections of them to create ideal breeding and nursery habitat.

Once we get those salmon out to sea, we then need to address ocean habitat and its threats if we are to have a sustainable coho population. Pinipeds are completely protected by the federal government, even though the local populations have rebounded to more than a sustainable level. Observations from the Scott Creek hatchery have noted an approximate 2% return rate of adult coho and 90% of these surviving fish have piniped bite marks on them. Seals and sea lions are aggressive, effective predators. The fish are running a gauntlet when trying to return to their spawning streams and, when the streams are blocked by sandbars, they are a captive lunch for the seals. NMFS is going to have to make a value judgment of which is more important, pinipeds or salmon, then act accordingly.

We also need to recognize that it is no longer 1940 and that land use patterns have changed significantly since then. The San Lorenzo Valley in 1940 was recovering its forests after they had been cut in the 1920's, the population was a great deal smaller and much of the housing in the area was used only for summer vacation homes. We now have large year-round population with all of the necessary infrastructure needed to support it, the forest has regrown to the point of overstocking, and this is unlikely to change for the foreseeable future. The large influx in the population has put a significant strain on the aquifers. Scotts Valley is often in danger of overtapping its aquifer and the City of Santa Cruz now has two dams divert water from the streams for municipal use. The San Lorenzo Valley is now a bedroom community, with a large number of septic tanks, wells, swimming pools, pets, gardens, and asphalt and gravel roads with their attendant chemicals and wastes lining it. With this many people, even with the best of plans, things happen. The Brookdale Lodge recently had an accidental bleach spill that caused a large fish kill in the San Lorenzo River. Roads blow out regularly under winter stresses. The odds are, we will continue to have incidents as time goes on. Punitive fines may make some people feel better, but they won't solve any problems and there isn't enough money available to make the changes that would produce real differences.

I don't expect you to take these suggestions at face value. We have the Soquel Demonstration Forest in our district. The purpose of demonstration forests is to provide a testbed for wildland management theories. I encourage you to set up some experiments to test out these ideas. All of us will benefit from actual experimental data performed in the field.

Even if these ideas prove to be valuable, NMFS may find they cannot implement them easily. The state and local regulations must also be taken into consideration, and they foster an almost exclusive hands-off approach to wild-land management. We encourage NMFS to collaborate with our local agencies, including California Department of Forestry and Fire Protection, California Department of Fish and Game, Central Coast Water Quality Control District, California Coastal Commission, to name just a few, to form a unified, coherent plan with the accord of all affected agencies before implementation.

Yours truly,

CCFA Board of Directors