

25 April 2010

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

from: Catherine Moore
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Felton, CA 95018

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

Ladies and Gentlemen,

I am a private landowner in the Santa Cruz Mountains who owns timberland and I appreciate the opportunity to weigh in on what we landowners can do to help with salmon restoration and the problems we face when we attempt to do so.

We are committed land stewards, and we have the tools to do a great deal of work on restoration projects. We already have to manage erosion, deal with invasive species, plant desired species, and reduce overstocking for fire protection and forest health. Many of us therefore have heavy equipment available and the skills to use it. We are accustomed to doing the sweaty work that real restoration requires; we are already doing it in other venues.

Research suggests that salmon-bearing streams need several features: deep, cool pools, gravel beds, places where the water gets aerated. A stream and its banks need to provide habitat for not merely the salmon, but also its food. May I suggest it may be a great deal more effective to get into those streams and aggressively terra-form sections of them to create ideal habitat rather than let nature have its undirected way?

It can be done. I have seen a beautiful example of a resurrected stream. This stream was considered to be entirely devoid of fish when the landowner began his project. He did not stock the stream, the fish (rainbow trout in this instance) moved in of their own volition. He built all of the features shown in these photos and he actively maintains it. Every year, after the winter floods, he takes his backhoe and cleans out his pools and puts the gravel back in place in its riffles. The fish just move to another part of the stream while he's working, then return when he's done. Remember, this is all man-made.

We were very excited the first time we saw this project and asked our local CDF&G representative for literature about what it would take to do something similar on our land and got told that disturbing the streambed in any way would get us into a heap of legal trouble. The whole idea of terra-forming to improve habitat was unthinkable and there is no permit structure in place for this level of work. The entire philosophy of wildland management in this state will need to change before anyone can build structures like this.



An overview of the entire stream section. The pools remain cool by being deep; the sunny banks allow the growth of forbs and the insects who eat them. These insects feed the fish.



Shallow riffles for nursery zones.



This section of rapids aerates the water.



Another aeration structure between two pools.



The small dam creates the pool upstream.



Is this ideal habitat? Check out this fish population. The largest fish are about 14 inches.

For years, the Forest Practice Act regulations have institutionalized a no-touch approach to stream beds; the California Department of Fish and Game will shut down and fine anyone who modifies a fish-bearing stream. There is nothing in their radar outside of adding large woody debris to a stream to improve its habitat.

In addition, the existing regulations serve to penalize those who actually do succeed in improving their habitat. According to the newly enacted ASP (Anadromous Salmonid Protection) rules, if a landowner improves the habitat on a stream so that it upgrades a class, the no-touch zone around the stream grows larger. Most of the best inventory in a forest grows along the stream banks. Trees need water and they grow best near steady water sources. Therefore, it makes absolutely no business sense for a forest landowner to choose to improve salmonid habitat; he loses too much.

Many of us have small to mid-sized properties ranging from just a few acres to up to 300 acres. These lands are too small to employ the economies of scale that the larger owners can afford. The money to manage our lands comes from the lands themselves, and whenever a portion of our land is taken out of production, it can be enough to break our capability to maintain it. Currently, a Timber Harvest Permit costs a landowner around \$30,000 and can take over a year to process. Multiple state agencies all weigh in on the process, and they often have conflicting goals and overlapping jurisdictions. What one agency may view as an worthy goal, another may view as a violation. We must juggle all of these entangled wish lists just to get permission to manage our lands and keep them healthy.

If you expect any landowner to be willing to help build salmonid habitat, he must have protection from losing his inventory and management options. At a minimum, we need a Safe Harbor agreement that all agencies involved in wildland management will honor, with attached penalties to an agency if it undermines the agreement. Streamlined permit processing, and minimal reporting requirements would also help. We will be much more effective working in the woods than filling out forms or writing reports. Instead of punishing landowners, we suggest you develop incentives. The incentives we find most attractive are those that reduce our costs and our regulatory restrictions, and so create a reasonable opportunity to profitably manage our lands.

Environmental management agencies operate under the extraordinary precept that all human actions are inherently destructive and their mandate is to inhibit the destruction by all means possible. To unleash the creative powers of the landowners, we need to recognize that much of what man creates is good and we can help shortcut the process of creating a balanced and functional ecosystem. The National Marine Fisheries Service is well positioned to implement this concept with their salmon restoration project.

yours truly,
Catherine Moore