



National Fish and Wildlife Foundation

Executive Summary for the Russian River Coho

March 24, 2009

Russian River Coho Business Plan

Executive Summary

Conservation need: Central California Coast (CCC) Coho salmon are on the brink of extinction. Although their range once stretched inland along more than 250 miles of California’s coast, only a few watersheds now support anything more than remnant populations. The decline of coho salmon has



been especially rapid in recent decades, resulting in listing as endangered under both the state of California and federal Endangered Species Acts. In 2008, approximately 20 adult coho returned to the Russian River watershed.

Performance targets: The overall goal is to recover a viable self-sustaining population of coho salmon to the Russian River watershed. The CCC Coho Salmon Recovery Plan produced by the National Marine Fisheries Service sets a goal of 6,240 returning adult coho to the watershed as a

biological criterion to signify “population viability and final recovery.” However, no target dates have been established. This Initiative sets the population targets over the duration of NFWF funding in this project from what was likely fewer than 20 returning adults in 2008, to 200 by 2016, to 1000 by 2022. Key partners: Sotoyome and Gold Ridge Resource Conservation Districts will provide outreach

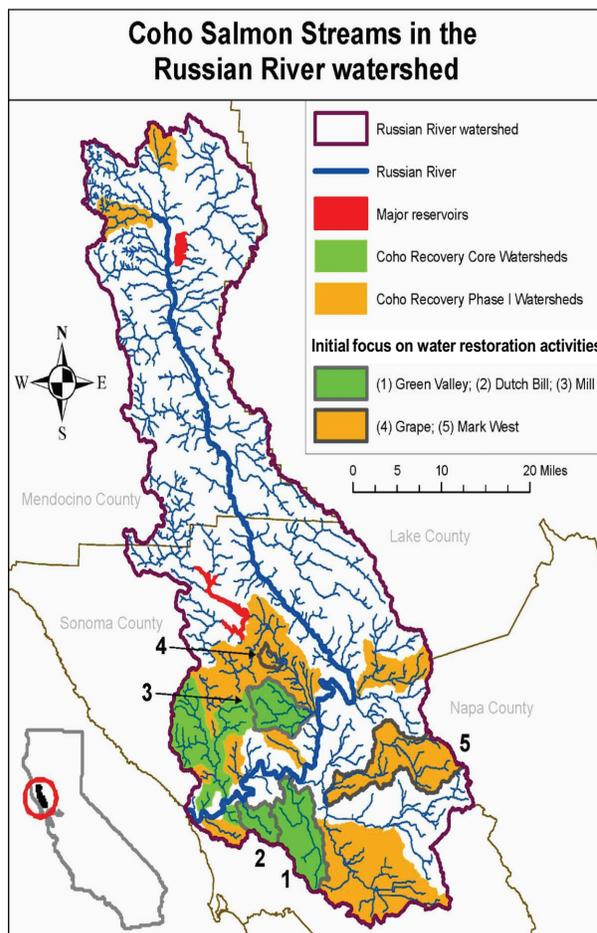
and communications. The Occidental Arts and Ecology Center will provide regional and institutional guidance. National Marine Fisheries Service, California Department of Fish and Game, Sonoma County Water Agency, and the University of California will provide monitoring, scientific and technical expertise. Trout Unlimited will provide legal and institutional support.

Major threats include: Altered hydrologic regime and low summer flows, fish passage barriers, riparian disturbance, altered sediment regime, channel modification, and low population numbers are the key threats to Russian River coho.

Implementation plan, key strategies, and annual budget: NFWF proposes three key strategies to achieve the performance targets describe above:

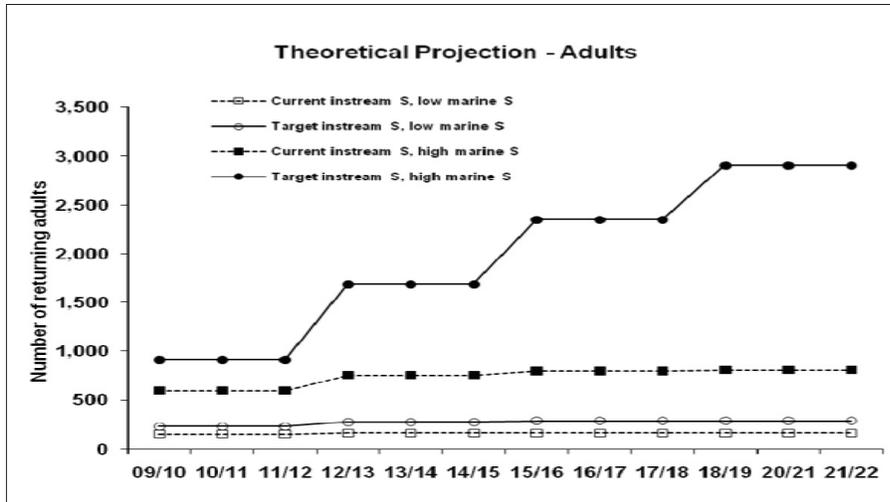
Strategy 1 — Water management plan development and implementation — \$7.4 million over 12 years

Restoration of coho to the Russian River will require a change in traditional water management practices on a watershed scale. Storage of winter streamflow in small reservoirs or tanks for irrigation use in the dry summer months can ameliorate many of the hydrologic impacts of altered land use.



Strategy 2 — Riparian/instream habitat restoration, conservation, and augmentation (R/C/A) — \$41.7 million over the next 12 years

Human development and land use practices in the Russian River watershed have frequently resulted in altered stream channels, reduced riparian zones, and reduced access to suitable spawning habitat.



These alterations limit the capacity for fresh-water streams to serve as spawning, rearing, and migratory habitat for a viable coho salmon population.

Figure 1. Return on investment modeled with both poor ocean conditions (low marine) and good ocean conditions (high marine) and with current instream flows and augmented targeted flows.

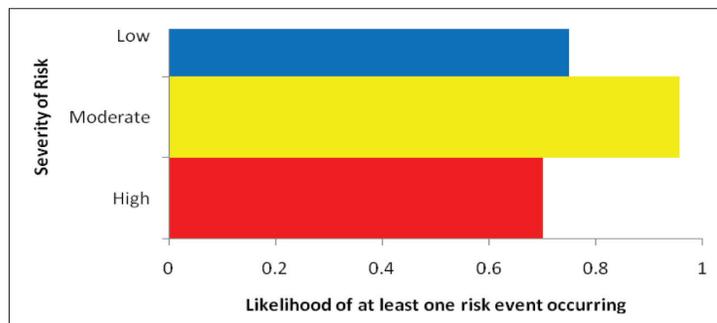
Population augmentation, monitoring, and evaluation — \$22.1 million over 12 years

In addition to habitat restoration efforts in the Russian River, CDFG, NMFS, and the Army Corps of Engineers began the Russian River Coho Salmon Captive Broodstock Program in 2001.

Significant ancillary benefits: we could expect steelhead (federally threatened) and chinook to benefit as well. Steelhead may show a more rapid response because they're more widespread through the region and in better shape population-wise than coho.

NFWF financial leadership: NFWF is asked to provide \$7,200,000 of the \$70,121,800 projected expenses. Over \$54,000,000 of the projected expenses are already committed. The NFWF portion will support the Russian River coho partnership that will manage the overall program development and support collaboration between partners.

Risk: Landowner Participation: landowners don't participate/cooperate due to regulatory uncertainty; because there are a lack of economic incentives for implementation of activities on private lands.



Scientific/Technical: the Russian River does not have an effective wild population of Coho therefore the restoration will be driven by a hatchery out planting program, hatchery fish do not survive as well as wild fish either in streams or the ocean; risk that we have over estimated the freshwater component of the life cycle and neglected the estuary; ocean conditions remain permanently poor.

Program Management: Legal or bureaucratic obstacles hinder the implementation of water governance plans.

Russian River Coho Logic Framework

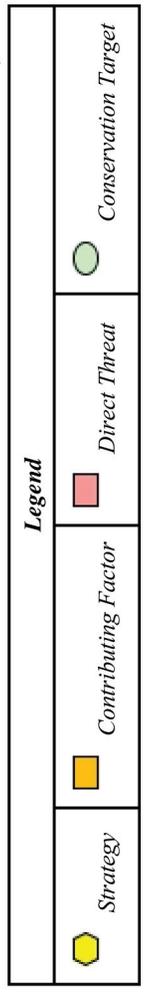
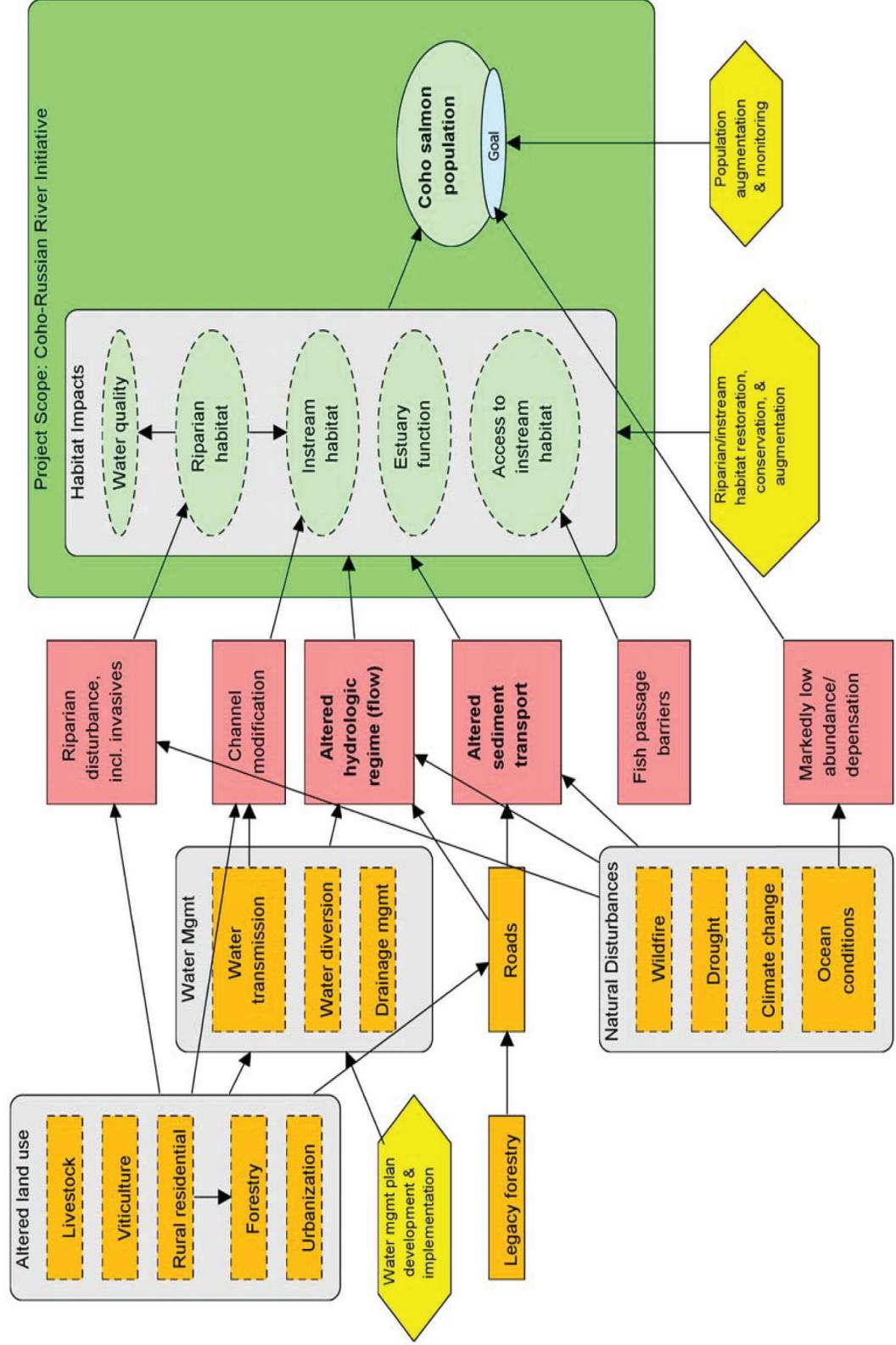




Photo credits (*left to right*): University of California Cooperative Extension and California Dept of Fish and Game

