

Russian River Biological Opinion Public Policy Facilitating Committee

December 13, 2010

PROJECT COMPONENTS:

Year Three Plans & Challenges:

Hatchery Improvements

California Department of Fish and Game

Scott Wilson, Acting Regional Manager

Eric Larson, Biological Programs Manager

Lake Mendocino Coyote Valley Dam



Coyote Valley Fish Facility



Lake Sonoma and Warm Springs Dam



Don Clausen/Warm Springs Fish Hatchery



Don Clausen/Warm Springs Fish Hatchery Coho Rearing Facility



Steelhead
Distinct Population Segments

Chinook
Evolutionarily Significant Units

Coho
Evolutionarily Significant Units



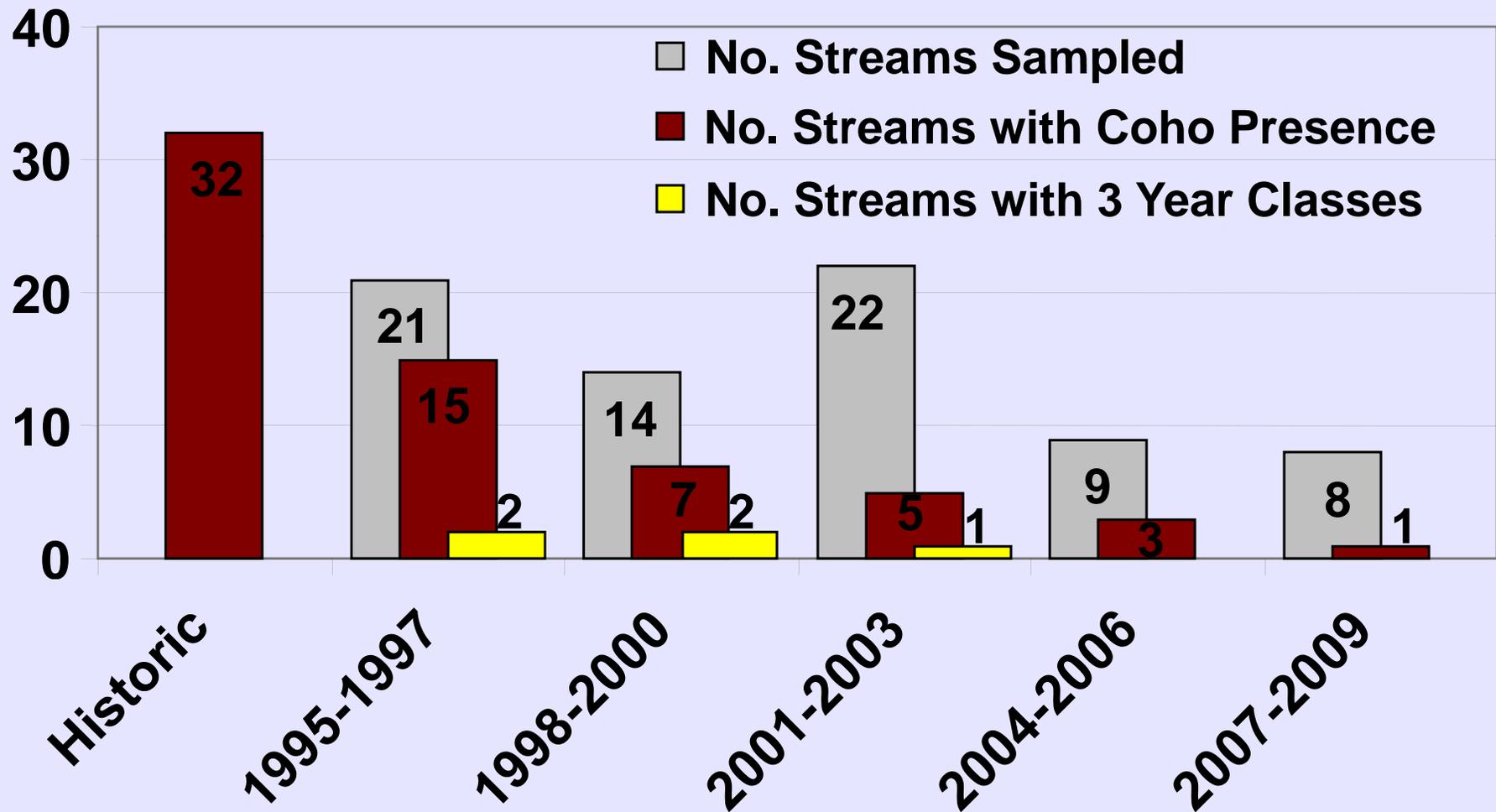
5 Steelhead Populations

2 Coho Populations

3 Chinook Populations

10 Species of Salmon and Steelhead Listed as Federally Threatened or Endangered in California

Decline of Coho in the Russian River Watershed



•Brown, et al. 1994

•Jong, 2006

Russian River Coho Salmon Captive Broodstock Program

Principle Goal: Re-establish self-sustaining runs of native coho salmon into streams within the Russian River watershed that historically supported coho salmon

Program Components:

Hatchery



Monitoring



Russian River Coho Salmon Captive Broodstock Program: Yearly Sequence of Events



Broodstock rearing at Warm Springs Hatchery, ~2.5 yrs



Broodstock Capture



Broodstock Spawning



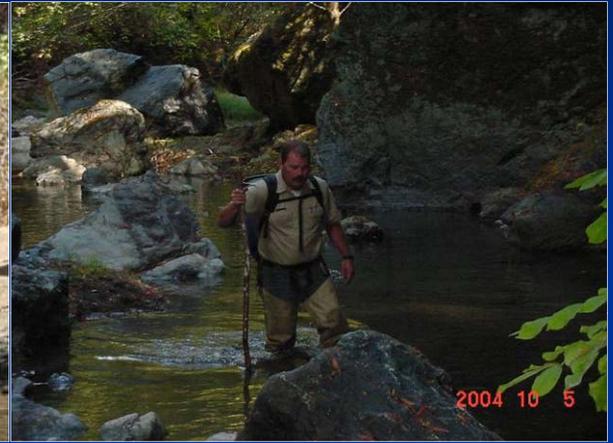
Post-release Monitoring



Progeny Tagging and Release



From the Hatchery to the Streams



Release and Monitoring Streams



Release and Monitoring Summary

Year	Coho Released	Release Type	Tributaries	Expected Returns (1% ocean survival)	Observed Returns (all methods)
04	6,160	Fingerling	3	25	0
05	26,059	Fingerling	5	27	0
06	42,838	Fingerling	7	71	43 (may include duplicates)
07	71,159	Fingerling	7	98	20 (as of Nov. 24, 2010)
08/09	90,658	Fing./Smolt	8	327	Return in 10/11
09/10	82,779	Fing./Smolt	8	392	Return in 11/12
10/11	161,626	Fing./Smolt	14	765 (est. based on '09 surv.)	Return in 12/13
Total	481,279	Fing./Smolt	14	1,705	63



Collaborative Cooperating Landowners Partnership





Russian River Steelhead vs Hatchery Production

- “Results from both Garza *et al.* (2004) and Deiner *et al.* (2007) suggest that the steelhead populations within the Russian River have not been dramatically altered by hatchery releases. Recent genetic information on Russian River steelhead indicates that there are no substantial genetic differences between wild and hatchery propagated steelhead in the basin, indicating a moderate gene flow among below-barrier anadromous sites”.

Excerpt from Biological Opinion

Dry Creek, Sonoma County



Restored Creek Channel



