

This Presentation was part the

**California Fish and Game Commission's  
Workshop on Strategic Improvement in  
California's Anadromous Hatcheries**

Sacramento, February 4, 2014

## **The California Independent Hatchery Science Review Group Report- Kevin Shaffer, CDFW**

Bob Clarke, Dan Warren, Mike Orcutt, Dave Hillemeier, and Bernie May need to be recognized for their key roles in the development and progress of the policy and scientific review teams and the development of the independent scientific review of California anadromous hatchery facilities.

**Why-** to evaluation California facilities to ensure facilities are managed and operated to meet one or both of the primary roles of hatcheries:

1. Support sustainable fisheries will little or no deleterious effects to naturally spawning populations
2. Recover and conserve naturally spawning populations.
  - ✓ Improving efficiency
  - ✓ Reducing impacts to river habitat and naturally spawning populations
  - ✓ Support commercial, Tribal, and recreational fisheries.

**The United States Congress** directed and provided an appropriation to U.S. Fish and Wildlife to conduct an independent review and provide the review report to Congress:

**Pacific States Marine Fisheries Commission** administered the contract; D.J Warren and Associated facilitated support efforts of the independent scientific panel and policy team.

**The policy team** was chaired by USFWS and there were four other members: CDFW, National Marine Fisheries Service, the Yurok and Hoopa Valley tribes.

**The independent scientist team** was established by the policy team and applications were facilitated through the American Fisheries Society

1. 11 scientists were selected, to address key scientific disciplines, including hatchery aquaculture, genetics, ecology, pathology
2. Members from agencies were not selected for their affiliation and did not represent their agencies on this team; they were selected for their expertise and experience in California anadromous hatcheries.
3. You will hear from several members today.

The CA HSRG evaluated 19 programs at 8 facilities over 16 months from 2010 to 2012.

1. The review was split geographically into the Klamath/Trinity Basin and the Central Valley.
2. Site visits occurred for every facility and dozens of staff from many organizations and hundreds of documents provided input and support to the scientific review process.

**The independent report was submitted to Congress** and released a public meeting at Nimbus Hatchery in August 2012.

**The review includes a central report**, program-specific reports and several appendices of additional information.

1. Standards- criteria a program must meet
2. Guidelines- ways to meet those criteria
3. Five key topics
  - a. Brood stock management
  - b. Program size and release strategy
  - c. Incubation, rearing, and fish health management
  - d. Monitoring and evaluation
  - e. Integration with habitat restoration

You will now hear brief presentations from five members of the HSRG Team.