

Appendix III

Data and Information Collection

California Hatchery Review Project

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1 Hatchery Performance Evaluation

The California Hatchery Scientific Review Group (CA HSRG) was given the task to review all salmonid hatchery programs operated in the State of California. The CA HSRG evaluated tools used in other regional hatchery reform efforts to determine the appropriate model to be applied to California. The CA HSRG elected to use the Hatchery Program Viewer (HPV), a tool developed as part of the Northwest Power and Conservation Council’s Artificial Production Review and Evaluation project for Columbia River hatcheries.

The HPV is an organizational tool developed to analyze hatcheries based on best management practices (BMPs). It provides a way to organize information that focuses reviewer’s attention on facility-related issues that have been identified as not meeting best management practices. The Columbia River HPV contains 90 questions organized in 11 categories about hatchery operational phases to which Yes or No responses are provided. Supplemental questions elicit more detailed information. The HSRG modified and revised the 90 questions and their supplemental questions to better reflect issues that may be present at California hatcheries. The Yes/No component generates a program “report card”, allowing reviewers to focus attention on issues that may need to be addressed. Each question is linked to a benefit/risk statement.

The HPV questionnaire was completed for each of the 19 programs reviewed by the CA HSRG. The Policy Committee identified a list of key contacts as sources of information for hatchery programs at each of the eight hatchery facilities. Contacts included the hatchery manager, monitoring and evaluation biologists and the regional managers. These individuals familiar with the hatchery programs met with members of the contracting team to fill out the questionnaires for each hatchery. Participants at each facility meeting are listed in Table 1.

Table 1. Hatchery program representatives present at data gathering workshops.

Attendee	Affiliation
<i>Iron Gate Hatchery, February 8-9, 2011</i>	
Andy Appleby*	DJ Warren & Associates
Diana Chesney	CDFG
Morgan Knechtle	CDFG
Kevin Malone*	Malone Environmental
Keith Pomeroy	CDFG
Linda Radford	CDFG
Robyn Redekopp*	Meridian Environmental, Inc.
<i>Trinity River Hatchery, February 10, 2011</i>	
Andy Appleby*	DJ Warren & Associates

Attendee	Affiliation
Larry Glenn	CDFG
George Kautsky	Hoopa Valley Tribe – Fisheries
Kevin Malone*	Malone Environmental
Laird Marshall, Jr.	CDFG
Mike Orcutt	Hoopa Valley Tribe
Shane Quinn	Yurok Tribe
Linda Radford	CDFG
Don Reck	US Bureau of Reclamation
Robyn Redekopp*	Meridian Environmental, Inc.
Wade Sinnen	CDFG
<i>Nimbus Fish Hatchery, April 11-12, 2011</i>	
Andy Appleby*	DJ Warren & Associates
Bob Burks	CDFG
Paula M. Hoover	CDFG
Dennis P. Lee	CA HSRG/CDFG
Kevin Malone*	Malone Environmental
Robyn Redekopp*	Meridian Environmental, Inc.
Dave Robinson	USBOR
William Smith	CDFG
Donovan Ward	CDFG
<i>Mokelumne River Hatchery, April 12-13, 2011</i>	
Andy Appleby*	DJ Warren & Associates
Bill Cox	CDFG
Dennis P. Lee	CA HSRG/CDFG
Kevin Malone*	Malone Environmental
Joe Miyamoto	EBMUD
Robyn Redekopp*	Meridian Environmental, Inc.
Jose Setka	EBMUD
William Smith	CDFG
Donovan Ward	CDFG
<i>Merced River Hatchery, April 14, 2011</i>	
Andy Appleby*	DJ Warren & Associates
Bill Cox	CDFG
Mike Cozart	CDFG
Tim Heyne	CDFG
Greg Kollenborn	CDFG
Kevin Malone*	Malone Environmental
Dean Marston	CDFG
Robyn Redekopp*	Meridian Environmental, Inc.

Attendee	Affiliation
Mary Seer	CDFG
<i>Coleman National Fish Hatchery, June 6-7, 2011</i>	
Andy Appleby*	DJ Warren & Associates
Kurtis Brown	USFWS
Scott Foott	USFWS
Brett Galyean	USFWS
Scott Hamelberg	CA HSRG/USFWS
Kevin Malone*	Malone Environmental
Kevin Niemela	CA HSRG/USFWS
Bob Null	USFWS
Robyn Redekopp*	Meridian Environmental, Inc.
<i>Livingston Stone National Fish Hatchery, June 7, 2011</i>	
Andy Appleby*	DJ Warren & Associates
Kurtis Brown	USFWS
Scott Foott	USFWS
Brett Galyean	USFWS
Scott Hamelberg	CA HSRG/USFWS
Kevin Malone*	Malone Environmental
Kevin Niemela	CA HSRG/USFWS
Bob Null	USFWS
Robyn Redekopp*	Meridian Environmental, Inc.
John Rueth	USFWS
<i>Feather River Hatchery, June 8-9, 2011</i>	
Andy Appleby*	DJ Warren & Associates
Julie Brown	CDWR
Bill Cox	CDFG
AJ Dill	CDFG
Anna Kastner	CDFG
Ryon Kurth	CDWR
Kevin Malone*	Malone Environmental
Michael Mercer	CDWR
Robyn Redekopp*	Meridian Environmental, Inc.
Donovan Ward	CDFG

* Contractors to the California Hatchery Review Project

For the purpose of this review, the HPV tool was used to identify hatchery operational issues. Questions were grouped into 11 categories: Broodstock Choice, Broodstock Collection, Adult Holding, Spawning, Incubation, Rearing, Release, Facilities, M&E, Effectiveness, and Accountability. Questions are generally framed such that a “Yes” answer implies consistency with standard hatchery BMPs and a “No” answer implies a potential operational risk. Each of the 19 program reports presented in Appendix VIII includes

documentation of the HPV evaluation outcome. Full responses to the questionnaire and supplemental questions can be found in Appendix A-1 of each program report. Data tables requested in the additional operation questions can be found in Appendix A-2. The HPV-generated benefit-risk report is presented in Appendix A-3 of each report.

2 Biological/Programmatic Evaluation

In addition to HPV data gathering workshops, contractors to the CA HSRG also conducted workshops to identify biological and programmatic issues associated with California’s anadromous fishery programs. Several types of data and information were requested for the biological/programmatic work sessions:

- Reports that describe populations or population components, reports that describe run groupings and geographic area, and reports or maps that describe geographic delineations of populations/runs/species for Chinook, coho and steelhead
- Juvenile and adult age structure and typical body size of adults by population or run for Chinook, coho and steelhead, and information that describes the relative composition of adult resident and anadromous *Oncorhynchus mykiss* by population or basin
- Information that describes in-river harvest on coho, Chinook and steelhead, such as summaries of annual steelhead sport catch
- Key reports and data tables citing spawner abundance estimates for coho, Chinook and steelhead
- Key reports and data tables that help describe the composition of spawners (hatchery/natural) by population or population component

Meetings were conducted with individuals identified by the Policy Committee. Typically these contacts included regional managers and biologists. Table 2 identifies the participants in these biological/programmatic data gathering workshops.

Table 2. Representatives present at biological/programmatic workshops.

Attendee	Affiliation
<i>Klamath/Trinity, February 14 and 15, 2011</i>	
Diana Chesney	CDFG
Leroy Cyr	USFS
Mark Hampton	NOAA
Dave Hillemeier	Yurok Tribe
Morgan Knechtle	CDFG
Toz Soto	Karuk Tribe
Larry Lestelle*	Biostream Environmental
Greg Blair*	ICF International
<i>Central Valley Area 1, April 25 through 28, 2011</i>	
Jennifer Bergman	PSMFC
Larry Lestelle*	Biostream Environmental
Kevin Malone*	Malone Environmental
Bill Mitchell*	ICF International
Jonathan Nelson	CDFG
Jeanine Phillips	CDFG
Jose Setka	EBMUD

Attendee	Affiliation
David Swank	NOAA
Shirley Witalis	NOAA
<i>Central Valley Area 2, June 14, 2011</i>	
Mike Berry	CDFG
Matt Brown	USFWS
Brett Galyean	USFWS
Scott Hamelberg	CA HSRG/USFWS
Doug Killam	CDFG
Larry Lestelle*	Biostream Environmental
Kevin Malone*	Malone Environmental
Kevin Niemela	CA HSRG/USFWS
Bob Null	USFWS
Jim Smith	USFWS
Doug Threloff	USFWS
Steve Tussing	Terraqua Inc.
<i>Central Valley Area 2, June 16, 2011</i>	
Julie Brown	CDWR
Jason Kindopp	CDWR
Larry Lestelle*	Biostream Environmental
Kevin Malone*	Malone Environmental
Bill Mitchell*	ICF International
Eric See	CDWR
Doug Threloff	USFWS

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The data collected at these sessions was incorporated into the 19 individual program reports in Section 2, Populations Affected by the Hatchery Program.