



U.S. Fish and Wildlife Service

US Fish and Wildlife Service Columbia River Basin Hatchery Review Project

What is the US Fish and Wildlife Service Columbia River Basin Hatchery Review Project?

In the past 150 years, habitat alterations, hydroelectric development and consumptive fisheries have impacted most of the salmon and steelhead populations in the Pacific Northwest. To mitigate for those impacts, hatcheries have been used to increase the number of fish available for harvest.

However, long-term conservation needs of natural salmonid populations and their inherent genetic resources require a re-examination of the role of hatcheries in basin-wide management and conservation strategies.



Warm Springs NFH

Photo by: Roberta Guarino

In an effort to improve its hatchery programs, the Service began a three-year review of 21 Columbia River Basin salmon and steelhead hatcheries that we own or operate. This review project will be completed by September 2008.

Our goal is to ensure that our hatcheries are operated on the best scientific principles and contribute to sustainable fisheries and the recovery of naturally spawning populations of salmon.

The review began in early October with the Warm Springs National Fish Hatchery (NFH) on the Warm Springs River. Fishery co-managers are involved in the review process and will also be asked to comment on draft reports and recommendations.

Review based on Puget Sound and Coastal Washington Reform Project

This internal review, in many ways, resembles the recent and successful Puget Sound and Coastal Washington Hatchery Reform Project. The hatchery review process developed in western Washington provides both a solid template and operational tools (e.g. software spreadsheets, population dynamic models) for reviewing Service hatcheries in the Columbia River Basin.

A Hatchery Review Team, comprised of Service and other federal scientists (NOAA & USGS) are conducting field tours with hatchery managers and their staffs, reviewing hatchery operations, and meeting with the co-managing agencies and tribes to get a clear understanding of the goals for and status of each wild and hatchery population and associated habitat and management strategies. The Review Team then applies the Puget Sound Coastal Washington Hatchery Scientific Review Group's scientific framework and hatchery review tools to create reform recommendations for each hatchery program.

Much of the background information necessary for reviewing Service hatcheries in the Columbia River Basin has already been compiled in Hatchery and Genetic Management Plans, Comprehensive Hatchery Management Plans and the Artificial Propagation Review and Evaluation (APRE) database (<http://www.apre.info/APRE/home.jsp>) developed by the Northwest Planning and Conservation Council (NWPPCC).

Best Science through three well-defined principles

The Hatchery Review Team adopted and adapted the three principles developed by the Puget Sound Coastal Washington Hatchery Reform Project's Hatchery Scientific Review Group to guide its review process.

Principle 1: Well-Defined Goals --

Goals for all affected stocks must be well-defined and quantified, where possible and expressed in terms of values to the community (harvest, conservation, education, research, employment, recreation, etc.). Goals should also have short-term (10 years) and long-term (50 years) time frames. Hatcheries can then be managed as tools to help meet those goals.

Principle 2: Scientifically Defensible Programs --

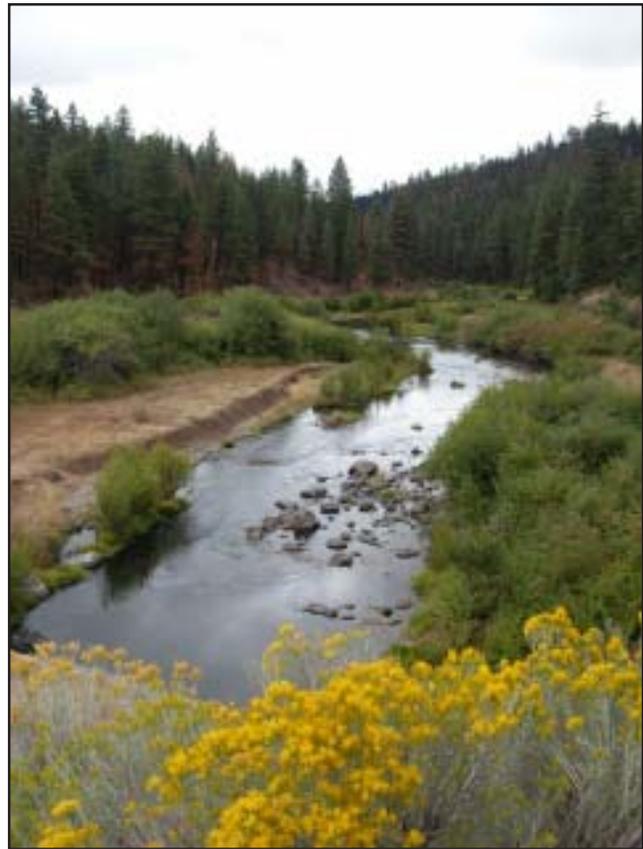
Once the goals for the resource have been established, the scientific rationale for a hatchery program—in terms of benefits and risks—must be described to explain how the hatchery program is expected to contribute to those goals. The purpose, operation and management of each hatchery program must be scientifically defensible. The strategy and specific protocols chosen must be consistent with current scientific knowledge.

Principle 3: Informed Decision Making -- Assuming that goals for the resource have been established, and the scientific rationale and defensibility for a particular hatchery program have been developed into a comprehensive *management and operational plan*, decisions about hatcheries then need to be informed and modified by continuous evaluations of existing programs and by new scientific information. Such an approach may require a substantial increase in scientific oversight of hatchery operations, particularly in the areas of genetic and ecological monitoring.

When decision-making processes that can respond to new information are in place, hatcheries can be managed in a flexible and dynamic manner in response to changing environmental conditions, new scientific information, changing economic values, and other factors that can determine the most efficient use of limited resources.

Progress

The hatchery review team toured the Warm Springs NFH and met with Warm Springs tribal staff



The Warm Springs River leads directly to the hatchery. The yellow flowers tell us it's the time of year for the salmon to head home.
photo by Roberta Guarino

members on Monday, October 3. During the following two days the team had additional discussions with tribal, state, and federal fishery co-managers about the Warm Springs program and fishery management plans and strategies in the Deschutes Basin.

The team met again on November 17 and is now completing its report and recommendations regarding the spring Chinook program at Warm Springs NFH. The team expects to circulate a draft of the Warm Springs report for co-manager review by mid-December.

A public review period is planned for late January to mid-February 2006. Stakeholder meetings concerning the draft Warm Springs report and recommendations are tentatively scheduled for February 7 at Warm Springs and February 8 at Portland.

The team is also beginning its preparations for review of fish rearing programs at the Leavenworth

National Fish Hatchery Complex, which includes Leavenworth, Entiat, and Winthrop NFHs located in northeastern Washington. The team expects to initiate those reviews in March 2006 and to complete their report and recommendations in late Fall 2006.

Reports and public meeting information will be made available on the hatchery review website (<http://www.fws.gov/pacific/Fisheries/Hatcheryreview/index.html>) for public comment starting with the Warm Springs report in February 2006.

History and purpose of National Fish Hatcheries in the Columbia River Basin

National fish hatcheries, in the Pacific Northwest date back to as early as 1870. These hatcheries, along with many other Federal fishery program offices, are important components of an integrated approach to the management and restoration of aquatic species and their environments in this region. Service hatchery managers focus not only on how to raise fish at the actual facility, but also on how, when, and where they will be released and on what the effects of those fish will be on the whole ecosystem to which they are released

Hatcheries have long played an important role in supporting recreational, commercial, and international fisheries, as well as in meeting our Tribal Trust responsibilities, and continue to do so today. However, with the decline and endangerment of many native species, Pacific Region hatcheries must now also play an important role in supporting the restoration and recovery of these species.

Salmon remain the focus of most of our hatchery efforts in the Pacific Region, though we also work with other anadromous and resident species as well. Comprehensive hatchery management planning and the hatchery review project reports will, with the help of our partners and stakeholders, ensure that the operations of our hatcheries and the fish they produce will help, not harm, our native species and environments and thus continue a legacy of fish and fishing for all to enjoy.

A Unique Partnership

The US Fish and Wildlife Columbia River Hatchery Review Project brings together a unique combination of scientific and Service hatchery expertise, co-manager involvement, stakeholder and public input and third-party project coordination/facilitation.



photo by Roberta Guarino

The Consultation Group on Biological Diversity assists in releasing Chinook into Shitike Creek; an historic site for this species on the Warm Springs Reservation of Oregon.

The heart of the project are the tools developed by the Puget Sound Coastal Washington Hatchery Reform Project's Hatchery Scientific Review Group (HSRG). This independent scientific panel, established by Congress, developed a scientific-based set of tools for implementing reforms and rethinking the way salmon and steelhead are managed.

The salmon conservation organization Long Live the Kings (LLTK) was designated by Congress as the Puget Sound Coastal Washington Hatchery Reform Project's independent third party. LLTK's roles in that project includes providing facilitation and project coordination to the HSRG and the Hatchery Reform Coordinating Committee, and helping the managers communicate hatchery reform progress to Congress, state legislators, stakeholder groups and the public. The Service secured the assistance of this third-party facilitator, in the Hatchery Review Project, to ensure similar success as experienced in the Hatchery Reform Project.

For more information on the US Fish and Wildlife Service Columbia River Basin Hatchery Review Project, visit <http://www.fws.gov/pacific/Fisheries/Hatcheryreview/index.html> call USFWS at 503.231.6874, or email amy_gaskill@fws.gov



Hatchery Review Project Team

Don Campton (project chair) is a US Fish and Wildlife Service (USFWS) senior scientist and geneticist at the Abernathy Fish Technology Center.

Douglas DeHart (project vice-chair) is a senior USFWS fishery biologist in the Pacific Region Office.

Tom Flagg is a supervisory fish biologist with NOAA Fisheries' Northwest Fisheries Science Center.

Ray Brunson is a USFWS Fish Health Biologist and the Director of the Olympia Fish Health Center.

Larry Telles, is the supervisory USFWS Fishery Biologist at Quilcene National Fish Hatchery in.

Dave Zajac is a fish and wildlife biologist in the USFWS Western Washington Office in Lacey, Washington.

Larry Marchant is a fishery biologist with the USFWS and the manager of Spring Creek NFH.

Carl Schreck is a Senior Scientist with the Biological Resources Division of the US Geological Survey and a professor at Oregon State University in the Oregon Cooperative Fish and Wildlife Research Unit.

Doug Olson is the Hatchery Assessment Team Leader at the USFWS Columbia River Fishery Resource Office in Vancouver, Washington.

Joe Krakker is a fishery biologist with the USFWS Lower Snake River Compensation Plan Office in Boise, Idaho.

Susan Gutenberger is the supervisory microbiologist at the USFWS Lower Columbia River Fish Health Center.

David Carie is a Fisheries Management Biologist at the USFWS Mid-Columbia River Fishery Resource Office in Leavenworth, Washington .

Michael Kern (project facilitator) is Project Director at Long Live the Kings.

Amy Gaskill, APR, is the External Affairs Specialist for the USFWS Pacific Region Fisheries Program.



Hatchery Reveiw Team

Top LtoR: Tom Flagg, Don Campton, Carl Schreck, David Carie, Doug DeHart, Dave Zajak

Bottom LtoR: Larry Marchant, Larry Telles, Ray Brunson, Doug Olson. **Not pictured:** Susan Gutenberger, Joe Krakker