



US FISH AND WILDLIFE SERVICE COLUMBIA RIVER BASIN HATCHERY REVIEW

Procedures

August 30, 2005

1) Purpose

Hatcheries need to be part of a holistic and integrated strategy that combines habitat and harvest needs for conserving and managing fishery resources. These strategies must establish short- and long-term goals for both hatchery-propagated and naturally-spawning populations. However, modifying hatchery programs and operations to achieve both conservation and harvest goals in a coordinated manner is difficult and complex. Scientific uncertainties exist regarding the ability of hatcheries and hatchery-origin fish to directly assist with recovery of naturally-spawning populations, while sustaining major fisheries. Uncertainties also exist regarding genetic and ecological interactions between natural- and hatchery-origin fish. Only an objective, collaborative, science-based approach can address these problems in a manner that is both scientifically defensible and accepted by the public.

The success of the Puget Sound and Coastal Washington Hatchery Reform Project in applying scientific principles and co-manager cooperation to review and improve hatchery programs led to a decision by the US Fish and Wildlife Service (Service) to apply this approach to Service-operated and -administered hatchery programs in the Columbia River Basin (Basin). An internal Hatchery Review Working Group (Working Group) was created to develop recommendations for a counterpart process. The Working Group's recommendations were adopted by the Service's Region 1 Assistant Regional Director (ARD) for Fisheries.

The Service has assembled a Hatchery Review Team (Review Team) to apply the principles and tools developed by the Hatchery Scientific Review Group (HSRG) in the western Washington project to a series of structured hatchery reviews in the Basin to be conducted 2005 through 2008. The Review Team's task is to review the objectives and operations of each program, then develop recommendations for both operational improvements and coordinating individual programs with Basin-wide management strategies and stock goals.

2) Scope of Project Activities

a) Objectives

The goals of the hatchery review process are to:

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- i) establish the scientific foundation for National Fish Hatcheries (NFHs) and cooperative programs in the Basin,
- ii) conserve genetic resources for salmonid species,
- iii) assist with the recovery of naturally-spawning populations,
- iv) provide for sustainable fisheries,
- v) conduct scientific research, and
- vi) improve quality and cost-effectiveness of hatchery programs.

The Review Team will:

- i) Adopt, adapt, and apply the scientific framework, principles and tools of the HSRG to the scientific review of hatchery programs in the Basin.
- ii) Recommend improvements in Service-owned hatcheries and/or Service-operated hatchery programs in the Basin for achieving both short- (10–15 years) and long-term (50 years) co-manager goals.
- iii) Identify the best use of existing Service facilities, and potentially propose alternative hatchery programs that may be more consistent with co-manager goals than existing programs.
- iv) Recommend a monitoring and evaluation system to ensure that successes and failures can be identified and assessed for adjusting programs in an adaptive management framework.
- v) Identify information needs and recommend further research at Service programs.
- vi) Communicate with tribal, federal and state agencies, the scientific community, interested parties and the public.

b) Relationship to State and Federal Agencies and Tribes

The Service is committed to fostering and maintaining close and constructive working relationships with salmonid co-managers. In conducting these reviews, the Review Team and other Service staff will seek the input and involvement of state fish and wildlife agencies, NOAA Fisheries, and Columbia River tribes through their contributions on the Hatchery Evaluation Teams (see below) and subsequent co-manager review of reports. The review process will incorporate opportunities for these managers to identify and provide pertinent information, recommend program modifications, and review draft reports and other documents. Questions and issues for consideration by the Review Team and/or Hatchery Oversight Team should be submitted to the Review Team Chair, Vice Chair or facilitator. The Service intends this review process to be both an opportunity for discussion about Service hatchery programs, and to serve as an example for similar reviews of state and tribal hatcheries.

3) Oversight and Evaluation Teams, Stakeholder Forum, Staff Assistance

a) Hatchery Oversight Team

A Hatchery Oversight Team (Oversight Team) will succeed the Working Group as the Service's primary internal mechanism to oversee the review process, monitor its

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progress, and transmit communications and reports from the Review Team to the Fisheries ARD and project leaders within the Service's Pacific Region Fisheries Program. The Oversight Team will be appointed by the Fisheries ARD, coordinated by the Pacific Region Hatchery/Science Team Leader and include participation by line supervisors within the Fisheries Program. The Oversight Team, along with the ARD, will be the primary contact group between the Service and its partners, to develop policies for implementing or modifying the Review Team's recommendations.

b) Hatchery Evaluation Teams

The Hatchery Evaluation Team (Evaluation Team) for each NFH will be an integral component of the review process, with primary responsibility for collecting and collating all relevant data and information for the Review Team, in the form of briefing books and support documents. Initial co-manager input by the states, tribes and other federal agencies will occur primarily through direct participation in meetings between the Review Team and the Evaluation Teams.

c) Stakeholder Forum

The Fisheries ARD will convene a Stakeholder Forum for outside evaluation and comment on the Review Team's reports and recommendations. This Forum will consist of representatives of non-government organizations (NGOs) and other stakeholder groups with professional interests and qualifications to provide external evaluation and comment on the Service's proposed recommendations and the co-managers' responses.

d) Staff Assistance

The Fisheries ARD may appoint existing Service staff to provide administrative, logistic, facilitation, coordination and communications assistance to this review and/or may contract for some or all of these services.

4) Hatchery Review Team

a) Appointment Procedures

The Fisheries ARD shall appoint a minimum of seven members to the Review Team. These members shall include individuals with the following expertise and experiences: 1) production hatchery manager with extensive culture experience; 2) one or two hatchery evaluation fishery biologists; 3) geneticist; 4) fish health biologist; 5) physiologist; 6) salmon ecologist; 7) Pacific Regional Office (RO) policy representative with fisheries management and hatchery experience. While most review team members will be Service biologists and managers, it may not be possible to provide all the desired expertise from Service personnel alone. Therefore, two or three non-Service scientists, from other federal agencies, may be appointed to the Review Team. One or two alternate members may also be identified. All Review Team members should have extensive experience with Pacific salmon and steelhead, and should include persons both from inside and

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outside the Basin. When a Review Team member steps down, a replacement will be selected by the Fisheries ARD, following consultation with the Review Team.

b) Criteria

The following specific criteria should be considered in selecting members:

- i) Expertise in salmon biology, fisheries biology, and/or associated fields that are applied to the conservation and management of salmonid fishery resources (e.g. genetics, ecology, fish pathology, biometrics or other appropriate disciplines),
- ii) A working understanding of salmon hatcheries and the federal hatchery system.
- iii) A demonstrated record of scientific or professional leadership.
- iv) High standards of scientific integrity, independence and objectivity.
- v) Ability to forge creative solutions to complex problems.
- vi) Ability to work effectively in an interdisciplinary team setting.
- vii) Ability to evaluate scientific merits independent of agency policies.
- viii) Administrative status within the agency is not a criterion.

c) Length of Appointments

Review Team members are requested to make a minimum one-year commitment when they accept their appointments. Appointments last until the review process is complete, or until the appointee steps down or is replaced by the Fisheries ARD.

d) Facilitation

The Review Team Chair and Vice Chair will appoint or arrange for the services of a facilitator to support the Review Team in its work. The facilitator will work closely with the Chair and Vice Chair in establishing and executing Review Team agendas and work plans. The facilitator will also be available to facilitate meetings and interactions between and among the Review Team, Evaluation Teams, Oversight Team and Stakeholder Forum.

e) Outside Expertise

It may be necessary to secure the services of outside experts to provide assistance on specific activities. Such services can be arranged by the Review Team Chair and Vice Chair, as allowed by budget limitations. Team members may also seek the expertise of colleagues on specific issues as desired or appropriate. Temporary members and outside experts should meet the same criteria as regular members and are subject to the same rules regarding bias and conflict of interest as regular members.

f) Agendas

Questions or issues to be considered for inclusion on the Review Team agenda should be submitted to the facilitator. The facilitator will bring these to the Chair or Vice Chair,

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who will consider the scientific aspects of the questions or issues and whether they fit within Review Team work plans and priorities. The Vice Chair and the facilitator will develop a draft agenda for each meeting, for consideration by and approval of the Team.

g) Meetings

The Review Team will meet on a regular basis, either in person or by conference call. Much of the work of the Review Team will be conducted between meetings by individual members, task teams or sub-committees, responding to assignments from the Chair, the Vice Chair or the Review Team as a whole. Meetings will provide the opportunity to report back, discuss work and formulate Review Team positions and recommendations.

Members are expected to place a high priority on attendance and participation in Review Team meetings. Members may bring relevant staff to informational sessions on the Review Team agenda, but should coordinate this attendance in advance with the Review Team Chair or Vice Chair and facilitator. In order to encourage individual members to express their views freely and to encourage a full and complete scientific debate on issues, Review Team discussion and decision-making sessions are to be attended by Review Team members and support staff only.

Summaries of meetings will be prepared by facilitation and support staff and reviewed by the Chair or Vice Chair. Support staff will also provide a list of decisions and actions, work assignments and schedules from each meeting. Review Team members will be compensated for travel and incidental expenses by their respective offices.

h) Reporting

The Review Team's usual method of communicating its findings and recommendations will be through written reports. All scientific and policy reports and documents (both print and electronic) should be approved prior to publication by the Review Team Chair or Vice Chair, respectively. Any reports prepared by the Review Team should provide a full explanation of the rationale for Review Team recommendations, in order to provide co-managers, stakeholders and the public with an understanding of why those recommendations were made. Review Team members and staff are asked to refrain from disclosing or characterizing the contents of draft reports.

i) Work Plan

The Vice Chair of the Review Team will work with the Review Team facilitator to prepare short- and long-term work plans to accomplish the purposes of the Review Team. Frequency of meetings will be determined by the work plan.

j) Bias and Conflict of Interest

For the efforts of the Review Team to be influential and credible, the Review Team must be perceived to be free of any significant conflict of interest, not compromised by bias

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and untainted by allegations of scientific misconduct. The Review Team will deal with a broad range of issues concerning salmon hatcheries, their operations, or policies. For this reason, there is ample opportunity for potential conflicts to arise for members on specific topics. It is imperative that the members of the Review Team are aware of the potential for conflict and are especially aware of the dangers of a *perception* of conflict. The Review Team will define bias and conflict as follows:

- i) Bias—Bias relates to views stated or positions taken that arise not from scientific analysis, but from the close identification or association with the positions or perspectives of a particular group.
- ii) Conflict of Interest—Conflict of interest means any financial or other interest which would benefit the individual and which conflicts with the service of an individual because it could impair the individual's objectivity or create an unfair competitive advantage for any person or organization.
- iii) Members of the Review Team are expected to take the responsibility for ensuring that real or perceived biases or conflicts of interest on their part are identified prior to taking part in any project. Members are expected to excuse themselves from work on any topic on which they perceive a real or potential conflict or bias.
- iv) Each member of the Review Team will be governed by the standards of ethical conduct for federal employees as contained in 5 CFR 2635 and the U.S. government publication, *Ethics – an Employee Guide* (see References section).
- v) In the event there remains any substantial question on the existence of a conflict of interest, it is preferred that the member involved request to be excused, in order to protect the Review Team from any appearance of conflict or bias. Unresolved questions will be decided by a vote of the Review Team (see section on Review Team deliberations).

k) Organization

- i) Officers and Terms—Officers of the Review Team shall consist of a Chair and a Vice Chair, to be appointed by the Fisheries ARD. The Chair and Vice Chair should have experience in dealing effectively with complex, controversial, scientific issues.
- ii) Duties of Chair—The Chair is the executive officer of the Review Team and provides leadership on all scientific matters. The Chair acts as the spokesperson of the group and designates another member to serve as an alternate spokesperson when the Chair is not available. Public statements by the Chair or designated spokesperson should reflect Review Team recommendations and positions.
- iii) Duties of the Vice Chair—The Vice Chair's role shall be to assist the Chair in implementing the Review Team work plan and other activities of the Review Team, as assigned by the Chair. The Vice Chair is the primary liaison between the Review Team and the Fisheries ARD. The Vice Chair works with the Review Team facilitator and support staff to arrange the time and place for meetings, produce meeting summaries and ensure summaries and other documents are forwarded to the membership. The Vice Chair works with the facilitator to ensure that meeting business is conducted in a timely and efficient manner, and that each member has the opportunity to contribute and be heard.

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- iv) Committees, Task Teams and Assignments—The Chair or Vice Chair may designate members of the Review Team to perform assignments and form committees and/or task teams to address specific topics. Each committee or task team should have a designated lead, responsible for overseeing completion of the task. Committees may include experts from outside the Review Team. Such appointments can be made by the Chair or Vice Chair.

l) Deliberations

- i) Decisions and recommendations of the Review Team will normally be made by consensus. The Chair or Vice Chair will clearly explain the proposed conclusion to the group and check for consensus.
- ii) If there is any question or doubt about whether consensus has been achieved on an issue, any Review Team member can request that a motion be made on the subject, according to Robert's Rules of Order. In such cases, after discussion, a vote will decide the issue.
- iii) A simple majority of the Review Team (either in person or via telephone conference) is necessary both to constitute a quorum, and to adopt a decision or recommendation (by either consensus or majority voting). Electronic polling (via phone and/or electronic mail) will be acceptable for ensuring a simple majority at or after a meeting where less than a simple majority was achieved.
- iv) Alternate members will participate in voting only when the regular member is not participating. However, alternates are expected to otherwise participate fully in Review Team activities and deliberations, including the discussions that lead up to the development of consensus opinions.

m) Publications and reports

- i) Goals
 - (1) Encourage peer-reviewed publication of the work of the Review Team. This work may be derived from the Review Team's regional reviews, issue papers, internal discussion, or other scientific products.
 - (2) Establish an open process for development of publications and reports that:
 - (a) Extends the Review Team's consensus-based decision-making process to publications.
 - (b) Encourages discussion during the early stages of development of a paper of the following:
 - (i) Scope of the proposed publication.
 - (ii) Objective of the proposed publication.
 - (iii) Intended audience and appropriate journal for the proposed publication.
 - (3) Identify and deal equitably with the question of authors and author order for the proposed publication or report.
- ii) Protocol and Process—these publication procedures apply only to papers or ideas that have been discussed or developed in Review Team meetings or as part of a Review Team project or review. All decisions involved in applying these procedures will be made according to the Review Team's decision-making procedures, as described

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earlier in this document. All publications and reports by Review Team members, regardless of authorship, reflect on the professional credentials of all Team members and shall be reviewed by the Team prior to submission for publication, outside distribution, or release. *Ethics – An Employee Guide* shall guide the content of all publications, including public speaking.

- (1) Proposals for publication should be submitted to the Chair for initial review and scheduling as an agenda item for the next meeting. Proposals should be brief, but describe the particulars of how the proposed publication addresses the goals identified above. Group discussion will likely dictate the future course of action on most proposals. If a jointly-authored publication is approved by the Review Team, a task team will be established to bring the publication to an internal review stage, and to finalize it for submission.
- (2) Type of paper—In general, there will be three types of papers proposed:
 - (a) Review Team Paper—Authorship to include all current Review Team members. Former members may be included at the discretion of the Review Team or the Chair.
 - (b) Review Team Subset Paper—A paper that is authored by several, but not all, Review Team members. Members of the facilitation team or agency science teams may be included at the discretion of the Review Team or the Chair.
 - (c) Proprietary Paper—A paper authored by one or a few members of the Review Team (and possibly other, non-Review Team authors) that, while based on a core of work conducted under a Review Team project; evolves beyond that core work of the Review Team project and represents creative or scholarly scientific work of an individual Review Team member. In all cases, the Review Team should be acknowledged if the genesis of the paper resulted from the review process and discussion.
- (3) Author Order
 - (a) Review Team Paper—Authorship on group papers will be Chair first, then alphabetical order, unless special circumstances on a particular paper suggest that another approach would be more appropriate and agreement can be reached on author order. Alternative approaches include strict alphabetical order of Review Team members, and Review Team members listed by order of contribution to paper.
 - (b) Review Team Subset Paper—Authorship for these papers should be determined in order of the relative contribution of the various authors. Care should be taken to ensure that Review Team members not listed as authors on the paper are comfortable with the proposed publication and the author list. Obviously, members that make a material contribution to the manuscript should be included as authors.
 - (c) Proprietary Papers—Sometimes there will be little distinction between this type of paper and the Review Team Subset Paper described above. In general, proprietary papers would be ones where the core or genesis for the paper occurs in the process of a Review Team assignment but is conducted outside the work assignments of the Review Team through individual initiative and independent scholarship; that is, development of the idea into a manuscript for publication goes well beyond the work conducted within the Review Team

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assignment and may or may not involve other Review Team members.

Authorship for these papers should be determined in order of the relative contributions of the various authors to the manuscript by mutual agreement.

- (4) **Publication Costs**—Publication costs for Review Team papers and Review Team subset papers will be covered by the Pacific Region Office. Publication costs for proprietary papers will be at the discretion of the Review Team or the Chair.
- (5) **Replication**—The Review Team’s tools and processes are adapted from those employed by the HSRG. Like the HSRG, the Review Team intends for the scientific tools and regional review processes used for this review to be publicly available, as models that can be adopted for similar challenges elsewhere. The Review Team requests that it be cited appropriately as the source of these tools and processes, if appropriate. The Review Team further requests that where tools and processes are modified for other applications, it be made clear that these adaptations differ from the adapted products of the Review Team.

5) Communications

- a) Public input to programmatic goals is critical to the success and credibility of this project. Therefore, project communications will be coordinated by the Service’s Pacific Region External Affairs Fisheries Outreach and Public Affairs Specialist, in cooperation with the Review Team Chair and Vice Chair, the Fisheries ARD and the Director’s office.
- b) There will be strong in-reach and outreach components to this project to include: a project website, co-manager and stakeholder presentations, Service staff and Congressional briefings, and press releases to local media. These will be coordinated by the Fisheries Outreach and Public Affairs Specialist.
- c) A Service member of each Hatchery Evaluation Team will coordinate information collected during the formal public review of the Hatchery Review Team’s reports. This information will be assimilated and posted on the project website.
- d) Briefings, presentations and other communications activities conducted by individual Review Team members should be reported to the Fisheries Outreach Specialist, for tracking purposes. Materials needed for briefings and presentations will be made available to Review Team members on the project website.

References

Hatchery Scientific Review Group (HSRG)—Lars Mobernd (chair), John Barr, Lee Blankenship, Don Campton, Trevor Evelyn, Tom Flagg, Conrad Mahnken, Robert Piper, Paul Seidel, Lisa Seeb and Bill Smoker. April 2004. *Hatchery Reform: Principles and Recommendations of the HSRG*. Long Live the Kings, 1326 Fourth Avenue, Suite 450, Seattle, WA 98101 (available from www.hatcheryreform.org). Cite in text as *HSRG 2004*.

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US Fish and Wildlife Service Director. January 2004. *Standards of Ethical Conduct for Federal Employees* (memorandum, based on 5 CFR 2635).

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