

# Cedar River Sockeye Hatchery Program Adaptive Management Plan: Adaptive Management Work Group Charter and Operating Guidelines

## Preamble

Multiple reasons exist for preparing a work group charter. One is to document the work group's purpose and to clearly define individual and group roles, responsibilities, and operating rules. Next, it establishes procedures for both the work group and agency staff on communicating, reporting, and decision-making procedures. It lays out a blueprint for conducting business for the programmatic objectives, and defines how the team works in an empowered manner, including setting out responsibility and authority. Finally, it facilitates stakeholder buy-in by including key members in the decision making process.

Because there are a wide variety of work groups, group sizes, and organizational protocols, no two charters will ever be identical. That affords members a great deal of latitude in determining what information should or should not be incorporated into the charter. The key in evaluating charter content is to ask the question: "Will this information potentially minimize conflict or confusion later in the project?" If the answer is "yes," then that component of the work group charter should be incorporated.

Work group charters formalize information that is frequently given as "understood" among members. As such, some members (particularly those with years of service in an organization) may balk at the notion that they should document how their relationship with their peers should function. Also, work group charters generally have little or no enforcement capability associated with them. The success of this charter is reflected in the successful operation of the hatchery. Ultimately, that is more important than the group itself. The charter frequently hinges on work group members' capacity to police themselves and adhere to the spirit if not the letter of the operating guidelines. If they can capably encourage others to follow the guidance of the work group charter, it becomes more effective over time.

## **1. Introduction**

### **a. Background and context**

- The Adaptive Management Plan (AMP) defines an operating and management framework for the Cedar River Replacement Sockeye Hatchery Program ("the Hatchery") as a legal component of the Landsburg Mitigation Agreement (as further described in section 2.b.iv.3). The Adaptive Management Work Group (AMWG) and the Technical Work Group (TWG) are specified in the AMP as the body of stakeholders responsible for overseeing research and monitoring under the Adaptive Management Plan on behalf of the Cedar River Sockeye Salmon Hatchery (see section 2.b.i details about governance structure of the

AMWG, and see section 2.b.iv(1) regarding the TWG). The AMWG is composed of agency representatives and stakeholders with an interest in the Cedar River Sockeye Hatchery Program, and formulates recommendations to the Landsburg Mitigation Parties regarding operation of the hatchery. The TWG is composed of up to seven technical experts with scientific focus on different aspects of salmon ecology, biology, and production science. The AMP provides direction for exploring and resolving “key scientific uncertainties” related to the effects of operating the Hatchery in order to achieve the Vision as stated immediately below. The AMP was completed in 2006 and will be critically reviewed and updated to reflect any significant developments or needed changes since then..

b. Vision

- i. The AMWG uses a sustainable adaptive management approach to meet these goals:
  - Implement the Cedar HCP and Landsburg Mitigation Agreement commitments related to a biologically and environmentally sound long-term sockeye hatchery program that will help to provide for the sustainability of a well-adapted, genetically diverse, healthy, harvestable population of Cedar River sockeye.
  - Avoid or reduce detrimental effects on the fitness and diversity of naturally reproducing salmon populations in the Cedar River and the Lake Washington basin.
  - Augment fry production from natural sockeye spawning in the Cedar River to produce a larger and more consistent number of returning adult sockeye, such that more frequent and more robust tribal and sport harvest fisheries should result.

c. Purpose

- The central purpose of the AMWG is to direct the collection of information and to guide the use of that information to make ongoing recommendations to the LMA Parties for hatchery operations (including but not limited to: establishment of egg-take goals and hatchery production plans, broodstock collection, spawning and incubation of eggs, rearing and marking of hatchery fry, release of hatchery fry into the natural environment, and monitoring, evaluation, and documentation of hatchery activities) to best achieve the objectives of the AMP.

d. Objectives

- Use research, monitoring, and analysis to improve the effectiveness of Hatchery operations.
- Provide oversight by tribal government, relevant agencies, and stakeholders in the operation of the Hatchery.

2. **Governance**

- a. Organizational Hierarchy (see also attached “Governance Structure” diagram)
  - The Adaptive Management Work Group is charged with directing the scientific research and monitoring process for providing recommendations for improved hatchery operations

to the LMA Parties over time. This includes providing direction for collection and use of information by the Technical Work Group to address the key uncertainties in the AMP, and other issues as deemed appropriate by the AMWG. The AMWG will direct the activities of the TWG in consultation with other parties involved in conducting the research, and with peer review input from the Independent Science Advisors (ISA) [see section b.iv(2)]. The AMWG, in consultation with the TWG, will then provide reports and recommendations for operational hatchery changes and /or other relevant and related activities as appropriate, to the LMA Parties [see section b.iv(3)] for approval as needed.

b. Role and responsibilities

i. Role and responsibility of Adaptive Management Work Group

- (1) The AMWG guides the implementation of the AMP. It's primary role is to direct the use of science to address uncertainties associated with the operation of the Hatchery—especially the five key uncertainties identified in the AMP—and to use lessons learned to make recommendations for changes to hatchery operations that are consistent with the above stated vision. All recommendations for actions to be taken by the LMA Parties with regards to operation of the Hatchery are made by the AMWG.
- (2) The AMWG will be responsible for making recommendations to the LMA Parties regarding:
  - The framework and detail for AMP policy, goals, direction and specific actions.
  - Membership of the TWG and ISA
  - Multiple-year budgets and annual operation plans within the context of a long-term (five-year) strategic plan.
  - Final review and approval of all science and management activities related to hatchery operation.
  - Establishment of priorities for program implementation.
  - Adoption of a set of thresholds for each hypothesis in the AMP that will trigger the evaluation and decision –making process.
  - In conjunction with the TWG collect and utilize current existing information to evaluate the currency of key uncertainties in the AMP..
  - Adoption of the annual report on current and projected year operations described in the “Operation Protocols”.
  - Oversight for hatchery operations for compliance with the operating plan with input from the TWG, the ISA, and the public.
  - Assembly and distribution of relevant technical information that becomes available in between annual report cycles.
  - Solicitation and coordination of input from all interested parties.

- (3) The AMWG has the above responsibilities as a function of its support to the LMA Parties. The LMA Parties have exclusive authority over what recommendations to partially or fully adopt or reject. In addition, the LMA Parties may make requests of the AMWG for technical inquiry and the AMWG will respond timely to any such requests with recommendations, information, or TWG scientific requests, and will timely inform the TWG of all such requests.
  - (4) AMWG and LMA Parties' approval will be required before the TWG begins implementing specific research or monitoring recommendations it provides to the AMWG. The TWG may formally recommend consideration of an issue or proposal by the AMWG at any time, and the AMWG will provide prompt communication regarding the request.
  - (5) In the course of implementing the AMP, the AMWG may wish to further discuss technical issues with the TWG or vice versa, and either work group may request a joint meeting of the AMWG and TWG to discuss and resolve technical and/or operational issues at any time.
  - (6) The AMWG may find that there are issues or opportunities that would be well-served by the formation of a sub work group. The AMWG may form ad-hoc sub-groups as deems appropriate for the success of the AMP.
- ii. Role and authority of the AMWG Chair
- (1) The SPU representative to the AMWG is to act as its Chair. The Chair has the primary duty of calling all meetings to order and officially presiding over the Work Group meetings. This includes: preparation and dissemination of the agenda at least five days in advance, recognition and assignment of official action items, and the review of past action items at each meeting. The Chair has a single equal vote on all issues officially considered by the AMWG.
  - (2) The AMWG Chair and the Scientific Coordinator [see section b.2.iv(1) below] will serve as the primary contacts for communications occurring between the two work groups as further described in the "Communications" section 3 below.
  - (3) The AMWG Chair will also serve as the "Operations Manager" for the AMWG regarding all hatchery issues. The Operations Manager will be responsible for maintaining regular communications with the co-managers, particularly with regard to run-size predictions and harvest management planning and regulating functions of the co-managers. The Operations Manager will also maintain regular contact with the LMA Parties, the TWG, the ISA, and the Hatchery Manager.

- iii. Role and responsibility of SPU AMP lead staff
  - The AMP lead staff is assigned to facilitate the success of the AMP process. This includes coordination with and among the groups involved in the AMP process and with individual members of the groups and their respective agencies. The AMP lead staff does not have a vote in any official decisions made by the AMWG, but will often participate in deliberations by the work groups. The AMP lead staff will conduct programmatic duties as requested by the AMWG, the TWG, and SPU in support of the AMP process.
  
- iv. Roles and responsibility of other organizations/workgroups
  - (1) Technical Work Group:
    - The Technical Work Group's role is to: 1.) provide the AMWG with recommendations for prioritization of data needs and to oversee monitoring, scientific data collection, information storage and access, and research requested by the AMWG to inform the best operation of the hatchery; and 2.) evaluate the information generated through monitoring and research, and use that information to make recommendations regarding the operation of the hatchery . The TWG provides the technical work needed to resolve the key uncertainties in the AMP and other possible relevant issues for implementation of improvements to hatchery operations. The TWG elects among its members a "Scientific Coordinator" to serve as the chair of the work group.
  
  - (2) Independent Science Advisors (ISA)
    - The ISA is a group of independent peer reviewers who may provide review and comment on studies and recommendations from the TWG, and may assist the AMWG and the TWG in evaluation of information and recommendations from the TWG. The ISA is intended to provide a roster of scientists reflecting a range of specialized technical expertise, which may be sought to provide further guidance or input on topics or recommendations considered by. The AMWG envisions consulting experts from the ISA infrequently in cases where specific technical perspectives may be desired. Formal AMWG approval will be required for any expenditure of AMP funds on ISA-related activities.
  
  - (3) LMA Parties
    - The legal oversight of all management activities related to the Cedar Sockeye Hatchery is provided by the LMA Parties according to the terms of the Landsburg Mitigation Agreement and also by the Muckleshoot Indian Tribe Settlement Agreement. The LMA Parties referred to here, and for the purposes of the AMP and the AMWG include: City of Seattle, U.S. Fish and Wildlife Service, NOAA Fisheries Service, the Washington Department of Fish and Wildlife, and the

Muckleshoot Indian Tribe (by the powers provided in the MIT Settlement Agreement).

(4) Anadromous Fish Committee (AFC)

- The AFC is an advisory group formed in the LMA to support the implementation and oversight of the LMA. The AFC remains an extant committee concurrent to the AMWG, and has ongoing responsibility related to anadromous fish issues outside of the Hatchery or the AMP (primarily related to the protection and management of species other than sockeye, including passage of fish at Landsburg Dam, habitat considerations in the Cedar River, et cetera).

(5) Hatchery Manager

- The Hatchery is to be operated by the Washington Department of Fish and Wildlife under contract with Seattle Public Utilities. A copy of that contract, including annual implementing documents, will be accessible to the AMWG, as requested.

c. Membership

- i. The AMWG membership is as specified for the AFC in section F.1 of the LMA. The composition of the AMWG is:
  - (1) Seattle Public Utilities (Chair)
  - (2) U.S. Fish and Wildlife Service
  - (3) NOAA Fisheries Service
  - (4) Washington Department of Fish and Wildlife
  - (5) Muckleshoot Indian Tribe
  - (6) King County Department of Natural Resources and Parks
  - (7) At-large Public Interest Stakeholder Member: Washington Trout
  - (8) At-large Public Interest Stakeholder Member: Puget Sound Anglers
  - (9) At-large Public Interest Stakeholder Member: Frank Urabeck (Public)
  - (10) At-large Public Interest Stakeholder Member: Bill Robinson (Public)
- ii. Members serve voluntarily on the AMWG and are paid by their primary employer (if at all) for the duties provided to the AMWG. The AMWG only assigns representation to individuals who serve as at-large public interest members. Agencies/organizations hold membership as constituent member organizations, regardless of which individuals serve as their staff on Work Group.
- iii. Appointed Stakeholder Members shall serve for five-year terms, effective from the date of selection by the Parties (deemed to be October 1, 2010 for the inaugural AMWG). Stakeholder Members may serve multiple terms. There are no terms or limits of membership duration for the other agency members of the AMWG.

- iv. There are no provisions for proxy or alternate attendance. However, agency membership is by agency and not personnel, and therefore more than one staff member may represent the agency and may cast a single vote on behalf of that member agency. Member organizations will be responsible for determining who should attend meetings of the AMWG and whether that person is authorized to formally represent (i.e. vote) the organization in the meeting.

d. Meetings

- i. The AMWG will meet at least quarterly or more frequently as approved by the Chair and AMWG. These meetings are to discuss hatchery operational activities and issues related to using scientific investigation and adaptive management to operate the hatchery. Meetings will be open to public attendance.
- ii. A draft agenda and work products prepared by the Chair will be sent to the AMWG members at least one week prior to any regular meeting. All Work Group meeting agendas shall be approved by the AMWG at the beginning of each meeting, and shall include a prescribed time as a separate agenda item during which members of the public may share their ideas, comments, and views on AMWG activities. The Chair may limit the amount of time allotted to the public to address the AMWG. Items may be added to the current agenda during the course of a given meeting by majority vote of the Members; however, no action may be taken on such items at that meeting.
- iii. Meetings will be conducted as working sessions where each topic is presented to the attending members by the AMWG Chair, the AMP lead staff, the Scientific Coordinator, and/or Scientific Coordinator's designee, with technical support from the others as necessary.
- iv. The AMWG will participate with the TWG in a regular joint scientific review session that will be open to the public, for review and discussion of the status of the research and monitoring activities of the AMP.
- v. The AMWG Chair will be responsible for providing staff for the purpose of keeping minutes of each meeting of the Work Group. Minutes include a summary of each agenda item discussed, which captures the context and the intent of the AMWG. Minutes will also serve as a record of all actions taken by the AMWG. Minutes will document key arguments made for and against actions of the Work Group.

e. Decision making

- i. Discussions between AMWG members and any other consulted parties will be held to clarify details and understandings in the process of developing recommendations for the LMA Parties. This will be followed by a reasonable opportunity for input from the public, and then by debate and the formation of recommendations to the LMA Parties.

- ii. All AMWG recommendations will be transmitted directly to the LMA Parties for approval.
  - iii. The AMWG will make determined efforts to make all formal work group decisions regarding study recommendations, hatchery management, or other technical issues, by full consensus of all the members. Should there be no clear consensus for a recommendation to the LMA Parties, despite extensive group deliberation, the AMWG may hold a majority vote at the discretion of the Chair. Any member of the AMWG may independently move for a vote on a recommendation, which may be held if seconded by another member. All formal votes will be decided by a simple majority of a quorum of members.
  - iv. The AMWG shall be considered to have a quorum of members present when at least six members are present, and must include both the MIT and WDFW members. Members may participate by telephone or video conference as necessary.
  - v. In the event of a non-consensus, majority-voted recommendation, those members in the minority may provide a minority supported counter-recommendation to the LMA Parties.
  - vi. In the event of an irresolvable disagreement over a recommendation or technical issue, as reflected by split decision of a quorum of the AMWG members, the LMA Parties may request, and must be provided with, a summary assessment and opinion statement by each equal portion of the AMWG membership. The LMA Parties will retain sole authority over how or if a response to the split opinion will be provided.
- f. Process for responding when thresholds are exceeded
- Adaptive Management is by definition the use of newly acquired data and knowledge to improve the management of the resource in question—in this case, the operation of the Hatchery as a means of achieving the AMWG Vision. As such, it is important to establish clear, quantitative data triggers or thresholds of impact that provide for consideration of changes to operations. The Adaptive Management Plan establishes specific primary statistical thresholds for results associated with each of the five AMP Key Uncertainties. The goal of the thresholds is to provide for an objective, quantitative, decision point for use by the TWG and the AMWG to prompt response actions to unusual or undesirable hatchery-generated outcomes. These thresholds are intended to be reviewed during the period prior to implementation and periodically thereafter as information is gathered to ensure that they are set appropriately. It is of great importance that the AMWG and TWG consider these thresholds in their deliberations about research, monitoring, and any potential operational changes to the hatchery that may come from threshold exceedance and the implications thereof in the adaptive management process. Section 4.8 of the

AMP delineates the process by which the TWG and AMWG will consider and respond to threshold.

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g. Process for making changes to the Work Group Charter/Operating Guidelines.

- If, after some period of time, amendments or modifications to the operating guidelines of this charter are necessary, the AMWG may recommend amendments or modifications to the LMA Parties according to its normal decision making process.

### 3. **Communications**

a. General communication expectations

- It is the belief of the AMWG that the process of utilizing information gathered through objective scientific inquiry to guide the operation of the Cedar Sockeye Hatchery will be best met when communications and interactions within the work group and among the work groups are highly transparent to all members.

b. External communication expectations

- In the course of executing the research and monitoring program for the AMP, AMWG members will likely hold conversations with scientists and peers from various other organizations, including the ISA. In addition to any ad hoc joint meetings planned, the AMWG and TWG will also participate in a regular joint scientific review workshop that will be open to the public, for a review and discussion of the status of the research and monitoring activities as well as the operational activities that derive from implementation of the AMP.

c. Communications with TWG

- i. The AMWG is expected to communicate both formally and informally with the TWG in the process of implementing the AMP. Requests for technical issue, research, or monitoring discussion by the TWG will be made through a formal request by the AMWG as described immediately below. Informal dialogue between individual members of the work groups is very important to building shared understandings and debating important

technical issues in the AMP process. This type of discussion between members should foster mutual collaboration between the work groups.

- ii. However, it is the duty of individuals in both work groups to elevate conversations that have potential bearing on the development or evaluation of LMA Party recommendations to AMWG Chair and TWG Scientific Coordinator. It is the responsibility of the AMWG Chair and the Scientific Coordinator to provide both work groups with sufficient notice and information about the topics of discussion that bear directly on the development of recommendations by the TWG. All AMWG recommendations (and counter-recommendations should they exist) to the LMA Parties will be communicated to the TWG at the time they are provided to the LMA Parties. Also, should the AMWG opt to forgo a recommendation by the TWG, the AMWG will promptly communicate that decision back to the TWG.
  - iii. When a topic of scientific interest is to be discussed for potential recommendation of hatchery management actions to the LMA Parties, that topic will be formally discussed with the TWG prior to the submission of an AMWG recommendation to the LMA Parties. The protocol for this process will be a written request for consideration of an issue from the Chair of the AMWG to the TWG via the Scientific Coordinator. The Scientific Coordinator will then be responsible for planning for timely discussion of the issue on the TWG regular meeting agenda.
  - iv. The TWG will provide written and verbal information to the AMWG on a periodic basis regarding research and monitoring topics. The TWG will provide the AMWG with at least one formal summary science report on an annual basis, that describes the data collection, analysis and results information related to the AMP process for that year. The annual report is to be a component of the annually updated AMP Research Plan as described in Section 5d. below. The TWG will work with the AMWG to develop a mutually agreed format for the annually updated summary report and Research Plan.
- d. Communications with LMA Parties
  - e. Communications with ISA
    - The primary role of the ISA is to provide the AMWG with an independent technical assessment resource for improving the AMWG's ability to evaluate scientific issues and/or recommendations and feedback from the TWG. There may be times, however, when a member of the TWG wishes to consult one or more of their peers on a technical issue. In general, this communication is expected and encouraged. However, at times when the AMWG is actively consulting members of the ISA on a TWG recommendation, the TWG member(s) will notify the AMWG Chair when any direct communication with any of those ISA members occurs..

- f. Communications with SPU and Hatchery Management
  - i. The AMWG and the TWG, will frequently interact with SPU and the Hatchery Manager in the process of developing recommended activities in hatchery operations. It is intended that the AMWG should have direct access through the AMWG Chair to communicate with the hatchery manager in developing information and recommendations related to the AMP process.
  - ii. Any actual requests of the hatchery managers for operational or monitoring activities will be made in the form of recommendations from the AMWG.

#### **4. Public Involvement in Adaptive Management Process**

- a. Public input process
  - i. It is an important part of the scientific process for the hatchery that it be open and visible to the public. Most public input and comment to the AMP process will be made via the AMWG. As described in Section 2d. above, all regularly scheduled meetings of the AMWG will be open to the public and will include on the agenda, an opportunity for public input.
  - ii. Any public comments or inquiries made directly to the TWG will be routed to the AMWG for official, formal public response.
- b. Public Outreach
  - It is important to the transparency of the AMP process that the public be given opportunity to share in the learning that is desired in the adaptive management of the hatchery. The AMWG will develop a public information and outreach strategy, so that the AMWG provides sufficiently detailed technical information to the public at large regarding the AMP and the work of the TWG. The primary vehicle for this technical reporting will be provided by a regular joint scientific review workshop.

#### **5. Work Planning**

- a. Pre-hatchery workplan
  - i. The major focus for the AMWG in advance of the start of hatchery production to commence in Fall 2011, will be:
    - (1) Review and update of the 2006 approved Adaptive Management Plan (AMP)
    - (2) Oversight and direction to the TWG in their development of an existing information/data collection project.
    - (3) Oversight and support for the TWG development of a data and information management and storage strategy
    - (4) Review and timely response to the TWG recommendations for prioritization of monitoring and research needs from key uncertainties described in AMP.

(5) Preparation of recommendations for initial research and data collection activities at hatchery start up in 2011, based on consideration of technical input from the TWG and other relevant information.

b. Process for developing new research inquiries

i. The key scientific uncertainties related to the management of the hatchery are identified and well described in the AMP. However, other new or emerging issues of scientific interest or concern may arise for either the AMWG or the TWG.

(1) The TWG will provide the AMWG with written proposals for any new research inquiries not previously approved by the AMWG or the LMA Parties, and will await direction from the AMWG before commencing any new monitoring or research.

(2) The AMWG will provide formal requests for evaluation of new or emerging issues, and request formal recommendations from the TWG as necessary.

c. Annual monitoring plan

▪ The AMWG will provide review, comment, and approval of the annual monitoring plan prepared and recommended by the TWG..

d. Annually updated Research Plan and Report

▪ In addition to the annual monitoring plan, the AMWG is responsible for reviewing and adopting the annually updated overall Research Plan and Report directed by the TWG. The Research Plan will review the past year's activities and outcomes, and will characterize all recommended long-term study activities under the AMP process including all data collection (monitoring), research, evaluation, and recommended activities by the hatchery managers for the implementation of the AMP.

## 6. Funding

a. SPU support for program

i. SPU has responsibility for the fiscal support of the AMP program. This means that in meeting its obligations under the Landsburg Mitigation Agreement, SPU will provide funding for monitoring, research, data collection, information storage and analysis leading to conclusions and possible recommendations, as required, and as available through the City's budget appropriations process.

ii. SPU has preliminarily identified available funding for the AMP direct cost and administrative support of approximately \$300,000 per year. Specific budget allocations for monitoring and scientific studies, that have been recommended by the AMWG and approved by LMA parties, as well as administrative support will be developed by SPU and provided to the AMWG and TWG for timely consideration of each year's research agenda and monitoring plan.

**ADAPTIVE  
MANAGEMENT PLAN  
GOVERNANCE  
STRUCTURE**

