

**WORKING TOGETHER ON THE PATH
TO SALMON RECOVERY:
H-INTEGRATION AND ADAPTIVE
MANAGEMENT**

June 20th and 21st 2006 Workshop

9 a.m. to 4 p.m. both days

Edmonds Conference Center

201 Fourth Avenue North, Edmonds, WA 98020

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Hatchery, Harvest, Habitat Integration & Adaptive Management

H-integration & adaptive management

WHAT IS ADAPTIVE MANAGEMENT?

“ Adaptive management can be defined as a process of making decisions, implementing them, learning from the results of implementation, updating scientific knowledge and tools, and adjusting decisions accordingly. ”

THE FIRST FOCUS OF ADAPTIVE MANAGEMENT: H-INTEGRATION

In their 2003 guidance to watersheds, the Puget Sound Technical Recovery Team identified the need for an integrated All-H strategy to recover salmon. During the technical/policy review of local recovery plans, reviewers identified the need to further advance H-integration in many watersheds. Adaptive management is the process identified in the Recovery Plan for adding elements or decreasing uncertainty in current recovery strategies and actions.

The advancement of H-integration has been identified as the first focus of adaptive management. H-integration asks people across the H-sectors (harvest, hatchery and habitat) to make and implement decisions that ensure management actions among the Hs complement each other in support of recovery goals. The Shared Strategy adopted the adaptive management process developed by the Ecosystem Management Initiative (EMI) at the University of Michigan. The proposed approach for making progress on the H-integration spectrum is consistent with EMI's adaptive management evaluation cycle (see graphic).

Stage A of the adaptive management evaluation cycle asks: What are you trying to achieve? The first steps of H-Integration require the participation of resource managers from each of the H-sectors. These managers need to develop a common understanding of the habitat conditions and fish populations in their system as well as an understanding of community values and needs. From this common understanding, they refine a common set of goals, outcomes and complementary suites of actions and begin to cycle through the adaptive management evaluation stages.

Stage B of the adaptive management evaluation cycle asks how we will know when we are making progress. To advance H-integration, adaptive management and monitoring (AMM) programs have to develop “common currency” metrics and benchmarks (inclusive of triggers) not only for each individual H-sector, but also for cumulative effects of all the Hs on the four Viable Salmonid Population (VSP) parameters (abundance, productivity, diversity and spatial distribution).

H-Integration requires a transparent and accessible reporting system that provides information to policy decision-makers, funders, and the public. Monitoring and research data as well as local and regional decisions determined through adaptive management processes should be summarized in a user-friendly format that describe what is happening. This is essentially a Verification and Accountability System (V & A System) that lets any interested party know the current status of salmon recovery and how the H-sectors, both individually and cumulatively, are affecting the achievement of recovery goals, and what is being done to address problems. In the adaptive management evaluation cycle, certain elements of the V & A System comport with Stages C and D.

An integrated adaptive management program will help decision-makers clearly see the interactions and cumulative effects of actions among the H-sectors leading to increased transparency and accountability. Such a program will ensure that:



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- a) Agreed upon actions are being implemented by the responsible parties in each H-sector, and if not, the process will be structured to help address the issues;
- b) Actions are effective in meeting expected and desired outcomes;
- c) Assumptions and scientific principles are understood and validated or corrected over time;
- d) Strategies and actions are adjusted as needed if any of the above fail to deliver as expected and as new information or improvements in scientific tools become available;
- e) Science informs policy decisions.

Even as we are embarking on implementing the adaptive management process to advance integrating the Hs, more work to establish and adopt local and regional adaptive management and monitoring programs is still necessary. At the regional level, the goal is to complete a draft AMM plan by the end of the year. Work between now and December includes:

- Developing regional metrics for individual and combined H-sectors that can be used to assess salmon recovery at population and ESU scales.
- Organizing these metrics to answer questions regarding the status of VSP parameters and listing factors developed by NOAA.
- Developing benchmarks (inclusive of triggers) for each metric that will allow decision-makers to determine whether a recovery action is working or failing.
- Developing timelines for changes to recovery strategies based on monitoring and evaluation.
- Clearly identifying, based on the suite of selected metrics, what we need to monitor and who is going to collect the information.
- Develop adaptive management plans for education outreach and capacity-building.

The Evaluation Cycle

