



STATE OF WASHINGTON

RECREATION AND CONSERVATION OFFICE

October 2008

**Item #14: Contract Renewal for Department of Ecology
Intensively Monitored Watersheds**

Prepared By: Ken Dzinbal, Recreation and Conservation Office
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Presented By: Bill Ehinger, Department of Ecology

**Approved by the
Director:**

Proposed Action: Decision

Summary

The Washington State Department of Ecology (Ecology) is asking the Salmon Recovery Funding Board (Board) for \$1,466,989 so that it can continue monitoring activities in four Intensively Monitored Watershed (IMW) complexes during state fiscal year 2009. In September 2007, the Board made FY 2009 funding for all four IMW complexes contingent on the Lower Columbia Fish Recovery Board coming back in a year to describe its restoration treatment plan for the Lower Columbia IMW complex (Attachment A).

Background

Washington's Intensively Monitored Watershed (IMW) strategy is a long-term effort intended to evaluate and quantify how management actions and habitat restoration activities lead to increased production of fish in watersheds. Compared to other types of monitoring (e.g. status/trends, reach scale effectiveness, and implementation monitoring), watershed-scale intensive monitoring (also known as validation monitoring) requires the most scientific rigor and the most integration between monitoring design, restoration planning and implementation, and data collection and analysis.



Washington's IMW program is a key component of the State's Comprehensive Monitoring Strategy and is critical to documenting the response of fish to restoration actions.

In 2003, the Board funded the initial development and implementation of IMWs in western Washington with an understanding that IMW monitoring requires a significant commitment of funds over time (up to a decade or longer) in order to meet program objectives. IMW monitoring involves three major steps: 1) establishing baseline conditions, 2) implementing specific and well-planned restoration activities and projects, 3) measuring changes in fish productivity and abundance having controlled for enough variables to be able to evaluate the net effect of restoration actions.

Ecology has been implementing Board-directed IMW monitoring since 2003 in four western Washington watershed complexes: Juan de Fuca, Hood Canal, Skagit Delta, and Lower Columbia.

In September 2007, Ecology requested Board approval for \$1.467 million for each of the fiscal years in the current biennium. The Board approved funds for FY 2008, but made FY 2009 funding contingent on a report from the LCFRB about the restoration treatment plan component of the Lower Columbia IMW complex. Ecology has worked with the LCFRB to ensure the restoration treatment plan is a good fit with the IMW design. The LCFRB's progress report is included as Attachment A.

The Recreation and Conservation Office (RCO) director gave Ecology a time extension for its FY 2008 grant to cover the period July 1 to October 31, 2008. The extension did not provide additional funds, but did allow Ecology to continue its IMW monitoring efforts and incur related costs. The funding request presented in this memo will reimburse Ecology for costs incurred over the past four months, and allow continuation of IMW monitoring in all four complexes for the remainder of the biennium (through June 2009).

Next Steps

If approved, staff will develop a grant agreement for Ecology IMW monitoring for FY 2009, covering the period July 1, 2008 – June 30, 2009.

Attachments

- A. Lower Columbia Fish Recovery Board Progress Report and Presentation
- B. Power Point presentation handout provided by LCFRB
- C. IMW Monitoring Presentation (Ecology)

Attachment A: Lower Columbia Fish Recovery Board Restoration Planning Progress Report

Prepared By: Jeff Breckel, Lower Columbia Fish Recovery Board (LCFRB)

Summary

At the September 2007 Salmon Recovery Funding Board (Board) meeting, members raised questions about the long-term cost and funding for restoration actions in the Lower Columbia recovery region. Members also questioned whether the planned restoration projects could be implemented in a manner or timeframe that would meet the requirements for Intensively Monitored Watersheds (IMW) monitoring.

The Board asked the Lower Columbia Fish Recovery Board (LCFRB) to return in a year and clarify restoration planning and costs needed to do the monitoring.

Progress

The Lower Columbia Fish Recovery Board received \$100,000 from the Board in May 2007 to develop the restoration treatment plan for the Germany/Abernathy/Mill Creek IMW complex. The funding supported technical and stakeholder coordination and the preparation of a restoration treatment plan consistent with the IMW experimental design.

The LCFRB hired a contractor to develop the restoration plan, and coordinated directly with Ecology to ensure that restoration planning is compatible with the IMW monitoring design. LCFRB and its consultant have reviewed the available data, including EDT analysis and recommendations for the Germany/Abernathy/Mill Creek complex, IMW habitat, water quality, and fish population monitoring data, and local Conservation District habitat data. This data review was coupled with a field reconnaissance to identify potential restoration opportunities and constraints.

Next Steps

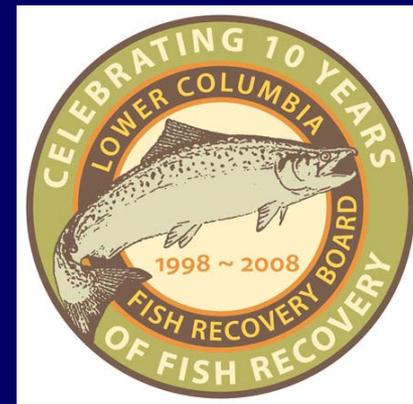
Project metrics and cost estimates are being developed so that projects can be prioritized according to LCFRB's Project Evaluation Criteria. This prioritization will be completed by October 3, 2008. The draft final Restoration Treatment Plan will be complete by October 10, 2008. At least ten high priority projects will be taken to the conceptual design level, and those designs will be completed by November 5, 2008. The draft final treatment plan and concept designs will be reviewed by the LCFRB Technical Advisory Committee in November, and the Final Plan will be complete by November 30, 2008.

The Germany/Abernathy/Mill Creek Treatment Plan will then be incorporated into LCFRB's Habitat Work Schedule. This effort will help identify restoration opportunities that can then be implemented by sponsors through various funding sources.

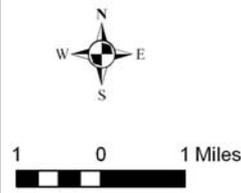
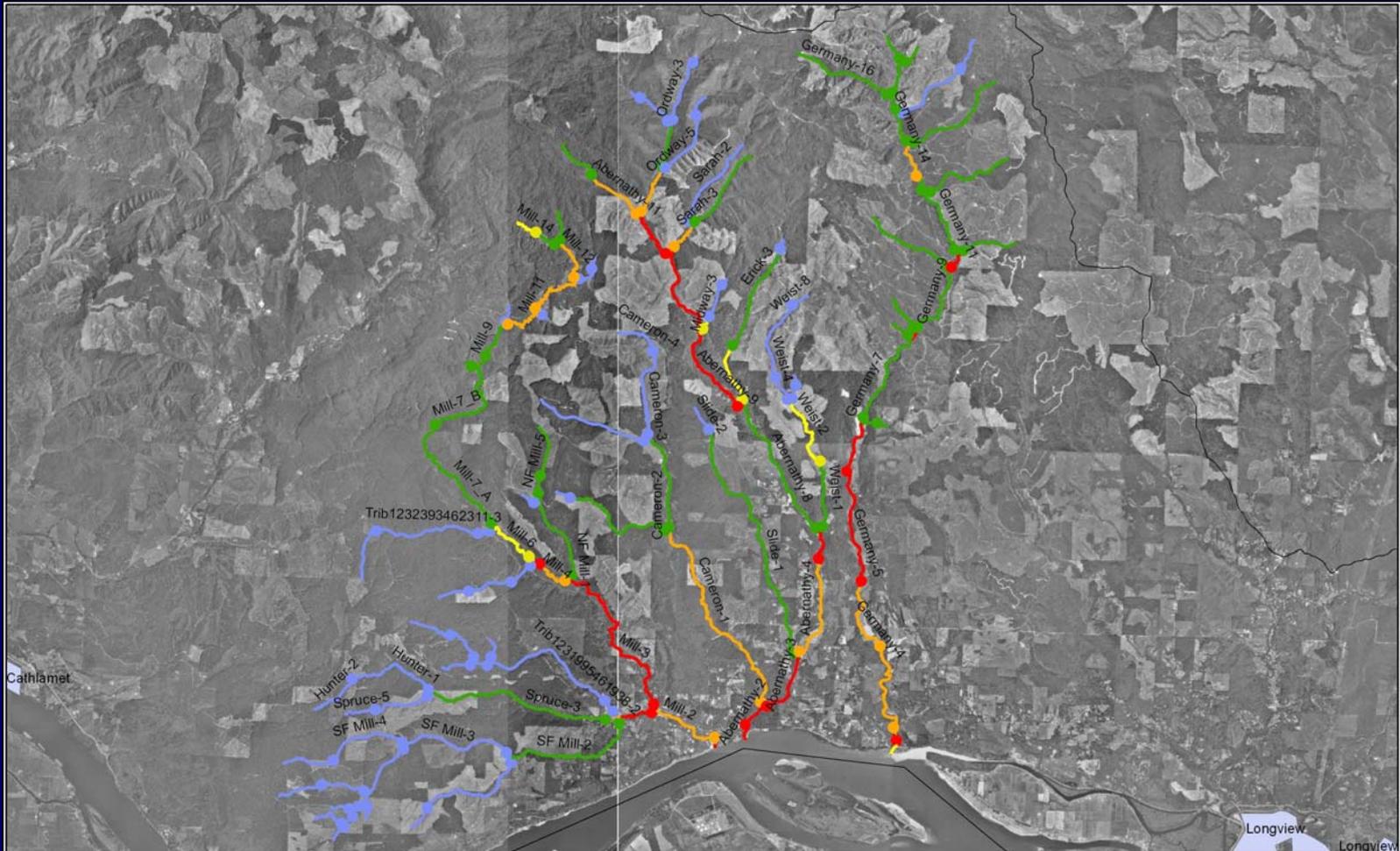
The LCFRB has received a time extension until June 30, 2009 to allow its contractor time to complete the project.

**Restoration Treatment Plan
for the
Mill-Abernathy-Germany Creeks
Intensively Monitored Watershed**

**Lower Columbia Fish
Recovery Board**



Mill, Abernathy, Germany Complex



- LCFRB Reach Tier**
- no tier
 - 1
 - 2
 - 3
 - 4

MAG IMW



Overall Project Goal

- Develop a restoration treatment plan for the Mill, Abernathy, and Germany IMW complex
 - based on Recovery Plan priorities
 - coordinated with IMW program
 - prioritized for implementation over the next 5 years
 - inform LCFRB Habitat Strategy

Project Objectives

- Assess Current Fish and Habitat Information - **Completed**
 - fish utilization, critical life history stages and associated limiting factors, habitat conditions
 - IMW monitoring data; WDFW surveys, EDT analysis, Conservation District data
- Identify Reach-Level Objectives within the Watershed – **Completed**
 - Habitat conditions needed to support key life history stages
- Identify Potential Project Sites and Restoration Treatments within Reaches – **Completed**

Project Objectives

- Field surveys of Abernathy and Germany Creeks - **Completed**
 - Evaluate feasibility and constraints of project restoration treatments
 - Identify project metrics
- Complete Draft Treatment Plan – **By October SRFB meeting**
 - Implementation priorities, schedule, and cost estimates
 - Potential funding sources
- Complete Conceptual Designs – **By November 5, 2008**
 - High priority restoration sites

Intensively Monitored Watersheds (IMW)

Monitoring types and questions

Brief history

Monitoring vs. Restoration – Lower Columbia

IMWs and Other Monitoring

- Status and Trend
 - What's the long term trajectory of fish or habitat trends?

- Effectiveness
 - Are specific project actions resulting in desired local effects

- Validation (IMW)
 - Identifies causal relationships (Why?)
 - ISP recommended
 - Included in CMS
 - Monitoring Forum recommended 1 per region
 - NOAA and PNAMP supported



Primary IMW Questions

- Does habitat restoration produce more fish?
- Can we improve our restoration efforts?
- Both questions require that we know the causal mechanisms between habitat restoration and fish production

Brief History

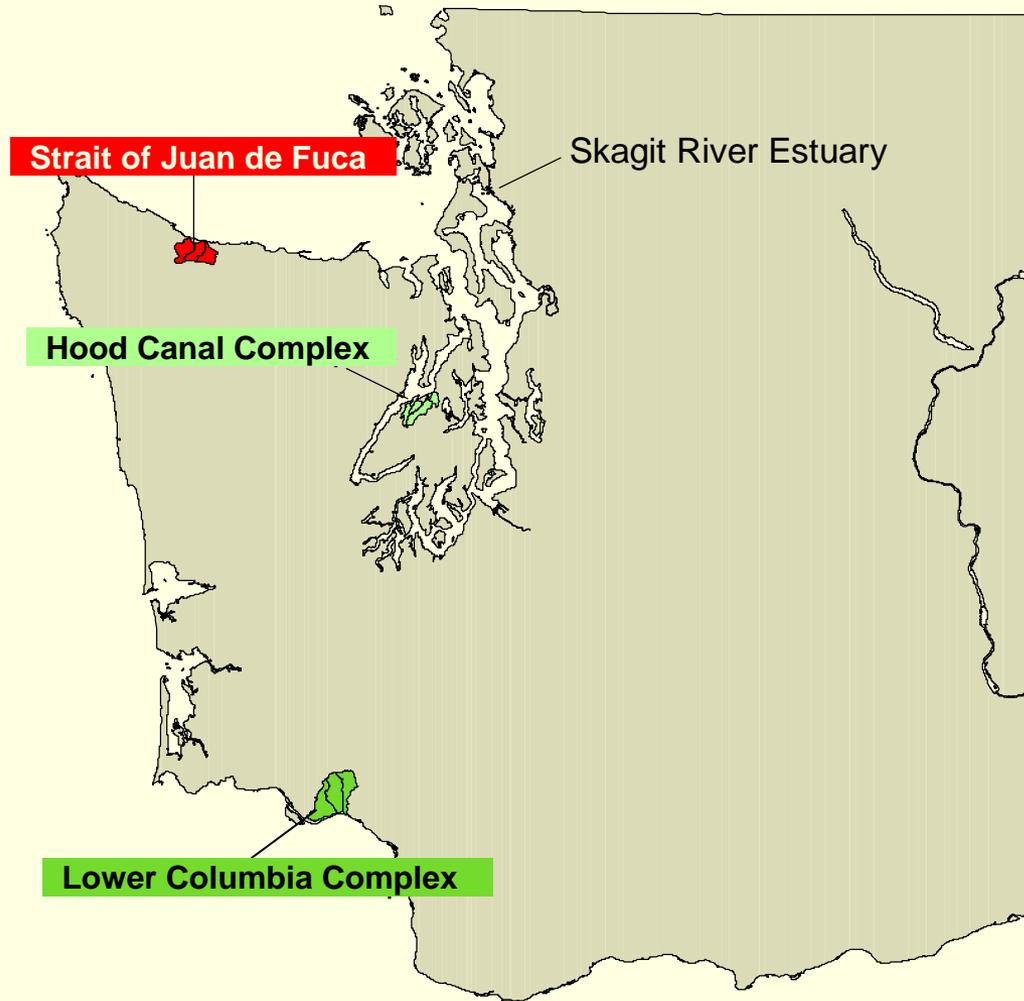
- In FY2004 the SRFB requested that Dept of Ecology and Dept of Fish and Wildlife conduct:
 - a scoping and feasibility analysis of IMW *and*
 - a review and analysis of potential IMW basins, with particular attention to listed chinook salmon in western Washington.

Independent Science Panel's review

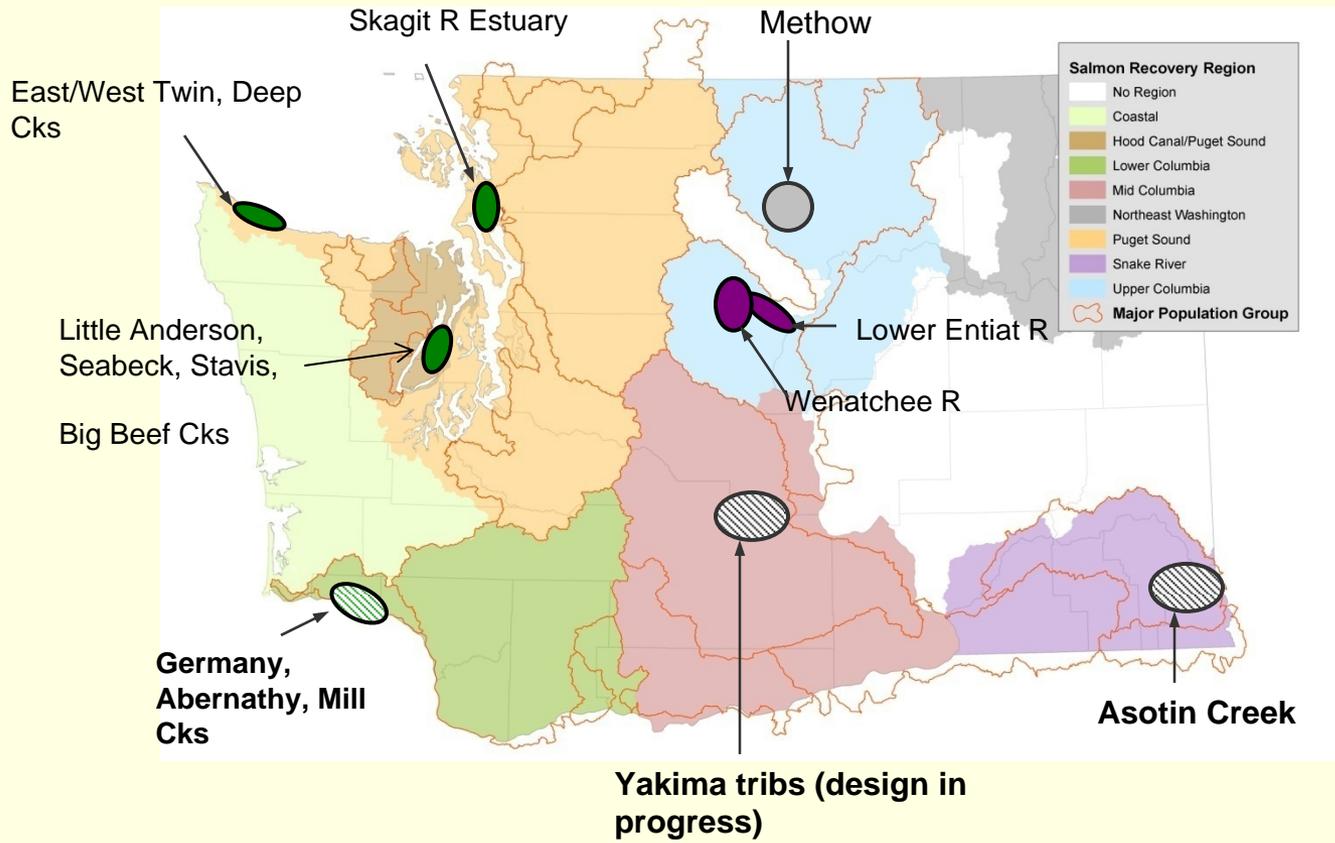
“...the SRFB-funded IMW program is designed as a comprehensive watershed scale effort that could represent the beginning of a state-of-the-art intensive monitoring program of salmon habitat improvement.”

“It is one of only a few studies to address this issue.”

Location of Study Watersheds



Washington IMWs



Two Aspects of IMW

■ Monitoring

- Dept of Ecology
- WDFW
- NOAA-NWFSC
- Lower Elwha Tribe
- Skagit R. System Coop
- Weyerhaeuser

■ Restoration

- LE's, LCFRB, HCCC, NOPL, SWC
- LCFEG, HCSEG, CCD,

Sometimes difficult to coordinate

Lower Columbia Complex

- Concerns about cost of restoration
- FY09 IMW funding contingent upon completed Restoration Plan
- IMW has provided data to and worked with the LCFRB and their consultants.
- Based on progress to date, we believe we can use this plan to guide restoration.

Monitoring Budget

Funding source		
	SRFB	In-kind + Existing
Overall	\$1,466,989	\$1,204,000
Lower Columbia	\$412,000	\$114,000

In-kind- direct support to the IMW provided by participating organizations (field support, oversight, analysis)

Existing- **1)** monitoring that is critical to one of the IMW complexes; **2)** existed prior to the IMW; and **3)** is not funded by the IMW

Budget

- RCO extended the agreement until October 31, but no funding added for FY09.
- Will have spent approximately \$475,000 during this time.