



## Independent Scientific Review Panel

for the Northwest Power and Conservation Council

851 SW Sixth Avenue, Suite 1100

Portland, Oregon 97204

[www.nwcouncil.org/fw/isrp](http://www.nwcouncil.org/fw/isrp)

April 2, 2013

### **Presentation: ISRP Habitat Research, Monitoring, and Evaluation Review - ISEMP, CHaMP, and Action Effectiveness Monitoring**

ISRP Chair Rich Alldredge will present findings and answer questions regarding the ISRP's Habitat RME Review - ISEMP, CHaMP, and Action Effectiveness Monitoring ([ISRP 2013-2](#)). Pete Bisson, ISRP Peer Review Group, will join on the phone.

This ISRP report covers the:

- ▶ Integrated Status and Effectiveness Monitoring Program (ISEMP) (Project #2003-017-00)
- ▶ Columbia Habitat Monitoring Program (CHaMP) (Project #2011-006-00)
- ▶ Action Effectiveness Monitoring of Tributary Habitat Improvement (AEM)

In sum, the ISRP appreciates the hard work that has gone into ISEMP and CHaMP. Together, these companion projects have achieved major gains in the collection of habitat data, the elucidation of relationships between fishes and their habitats, and the effectiveness of tributary habitat restoration actions. The ISRP also appreciates that both ISEMP and CHaMP are works in progress and that their organization, analytical tools, and data archiving will evolve as learning occurs. Without ISEMP and CHaMP, it is likely that uncoordinated habitat monitoring will continue and learning from our successes and failures will be hindered. The AEM plan provides a useful general framework for stratifying action effectiveness monitoring, but more details are needed, especially with regard to the integration of the AEM approach into ISEMP and CHaMP objectives.

Assuming AEM will collect data compatible with the CHaMP/ISEMP programs, these three efforts should provide valuable information on the productivity gains that can be achieved through habitat actions. This understanding has been lacking for the Columbia Basin, and elsewhere in the Pacific Northwest, and has likely severely hampered the effectiveness of restoration efforts over the last thirty years.

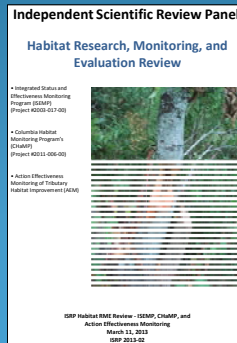
The presentation is attached.

# ISRP Review of ISEMP, CHaMP, and AEM Reports

ISEMP – Integrated Status and Effectiveness Monitoring Program

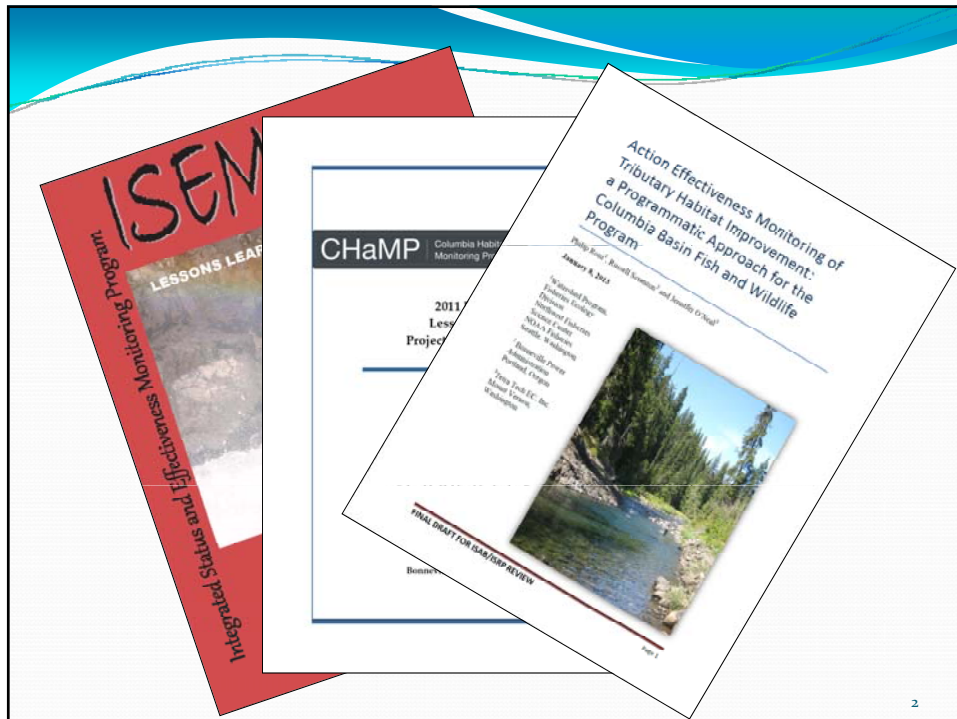
CHaMP – Columbia Habitat Monitoring Program

AEM – BPA's Habitat Action Effectiveness Monitoring Plan



NWPPC Meeting 4/9/13

Rich Alldredge – ISRP/AB Chair



## ISEMP

**Integrated Status and Effectiveness Monitoring Program (ISEMP): Lessons Learned Synthesis Report 2003-2011 (July 6, 2012) (Project #2003-017-00).**

- “...research and development project to test and develop fish and habitat monitoring methods, data management tools, and data analysis methods for general use by Fish and Wildlife monitoring projects across the interior Columbia River Basin.”

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## CHaMP

**Columbia Habitat Monitoring Program's (CHaMP): 2011 Pilot Year Lessons Learned Project Synthesis Report (March 31, 2012) (Project #2011-006-00).**

Purpose:

- Use a programmatic approach to standardized data collection and management
- Implement a monitoring protocol for fish habitat status and trends for the portion of the Columbia Basin that is accessible to anadromous salmonids.

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## AEM

**The Action Effectiveness Monitoring of Tributary Habitat Improvement: a Programmatic Approach for the Columbia Basin Fish and Wildlife Program (January 2013).**

- The ISRP and the Council recommended moving towards a standardized, programmatic approach to evaluate the effectiveness of habitat restoration actions.
- Framework for how BPA proposes to implement a standardized effectiveness monitoring program.

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## Our Questions

### ISEMP

1. Has ISEMP yielded useful information about sampling designs for assessing habitat and fish population status and trends?
2. Has ISEMP advanced our ability to monitor and evaluate adult and juvenile salmonid populations in the Columbia River Basin?
3. Are Intensively Monitored Watersheds (IMWs) delivering on the promise of establishing cause-effect relationships between habitat restoration and improvements in fish populations?
4. Is the analytical framework in ISEMP up to the task of evaluating the field data and making results available to managers and restoration practitioners?

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## Our Questions

### CHaMP

1. Has CHaMP identified and addressed the right questions with regard to tributary habitat status and trends?
2. Has CHaMP provided satisfactory answers to the ISRP's and Council's questions and concerns (see attachment)?
3. Does the CHaMP synthesis report adequately address the lessons learned from pilot studies? In particular, has CHaMP provided useful information about what worked and what didn't work in implementing the habitat surveys?
4. Has the CHaMP team adequately described how they will analyze the data collected?
5. What suggestions does the ISRP have for CHaMP as the project goes forward?

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## Our Questions

### Habitat Action Effectiveness M&E Approach

1. Is this a scientifically sound approach for evaluating the effectiveness of habitat actions?
2. Does this approach build on past, current, and planned habitat actions and associated monitoring to test action effectiveness?
3. Does the document describe how information on project or site-level effectiveness will be used by efforts such as IMWs and ISEMP to evaluate the effectiveness of the Basin's collective habitat work in realizing improvements at the fish population and watershed level?

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## Recommendations

### ISEMP

- Collaboration with other large-scale monitoring efforts to maximize data sharing and opportunities for learning is essential.
- Annual meetings should be promoted to exchange results and lessons learned.
- Intensively Monitored Watersheds for establishing relationships between habitat restoration and fish populations have ISRP support. New IMW designations should meet strict criteria for experimental design.
- The ISRP should continue to review ISEMP progress reports.

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## Recommendations

### CHaMP

- Continue to streamline habitat measurements.
- Consider including metrics in addition to physical habitat metrics.
- Pursue more collaboration with habitat monitoring efforts, such as PIBO and AREMP and with water quality monitoring programs, to improve sampling efficiencies.
- Expansion of the suite of sites visited is justified, but with caution as sampling protocols continue to be refined.
- The ISRP should review future CHaMP progress reports.

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## Recommendations

### AEM

- Be more explicit about how to integrate the approach into ISEMP, CHaMP, PNAMP, PIBO, OWEB, and SRFB monitoring programs.
- Include more discussion of how preferred experimental designs can be modified to fit particular restoration situations, that is how can monitoring be tailored to other circumstances.
- Consider alternative analysis techniques, including Bayesian methods.

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## Summary – ISEMP & CHaMP

ISEMP and CHaMP have achieved major gains in:

- collection of habitat data,
- understanding relationships between fishes and habitats,
- improving the effectiveness of tributary habitat restoration

ISEMP and CHaMP are evolving in organization, analytical tools, and data archiving as learning occurs.

ISEMP and CHaMP enhance coordination of habitat monitoring and the process of learning from successes and failures.

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## Summary - AEM

The AEM plan provides a useful general framework for stratifying action effectiveness monitoring.

More details are needed, especially with regard to the integration of the AEM approach into other monitoring program objectives.

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## More information:

ISEMP: <http://www.cbfish.org/Project.mvc/Display/200301700>

CHaMP: <http://www.cbfish.org/Project.mvc/Display/2011-006-00>

AEM:

[http://dropbox.nwcouncil.org/Habitat%20effectiveness%20monitoring%20and%20evaluation%20-%20BPA%20submittal%201-10-13/011013%20AE Monitoring Programmatic Plan Final ISAB Draft.pdf](http://dropbox.nwcouncil.org/Habitat%20effectiveness%20monitoring%20and%20evaluation%20-%20BPA%20submittal%201-10-13/011013%20AE%20Monitoring%20Programmatic%20Plan%20Final%20ISAB%20Draft.pdf)

ISRP review: <http://www.nwcouncil.org/fw/isrp/isrp2013-2/>

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