ISRP Review of 2010 Proposals for the Research, Monitoring, and Evaluation and Artificial Production Category

Dr. Peter A. Bisson Dr. J. Richard Alldredge Dr. Eric J. Loudenslager NPCC Meeting Missoula, MT January 11, 2011



Independent Scientific Review Panel

for the Northwest Power & Conservation Council

ISRP & Peer Review Group (PRG) Members

ISRP Members

J. Richard Alldredge, Ph.D. Robert Bilby, Ph.D. Peter A. Bisson, Ph.D. Charles Henny, Ph.D. Colin Levings, Ph.D. Eric J. Loudenslager, Ph.D. (ISRP Chair) Katherine Myers, Ph.D. Thomas P. Poe, M.S. Dennis Scarnecchia, Ph.D. Bruce Ward, M.S.

Scientific Peer Review Group Members

Jim Congleton, Ph.D. Kurt Fausch, Ph.D. Jack Griffith, Ph. D. Susan Hanna, Ph.D. William Liss, Ph.D. William Pearcy, Ph.D. David P. Philipp, Ph.D. Greg Ruggerone, Ph.D. William Smoker, Ph.D. Ray White, Ph.D. Richard Williams, Ph.D.



<u>Staff</u> Erik Merrill, J.D., ISRP and ISAB Coordinator

2010 RM&E and Artificial Production Categorical Review

99 proposals for projects selected by Council and BPA59 MOA, BiOp, and Fast Track *contextual projects* previously reviewed2 Fast Track proposal follow-ups

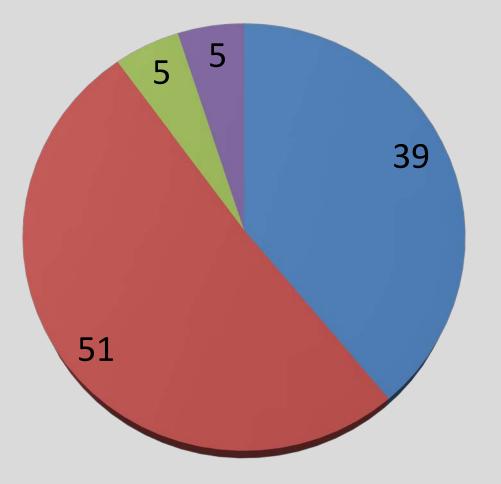


Scientific Review Criteria

- 1. Based on sound science principles
- 2. Benefit fish and wildlife
- 3. Have clearly defined objectives and outcomes
- 4. Contain provisions for monitoring and evaluation of results

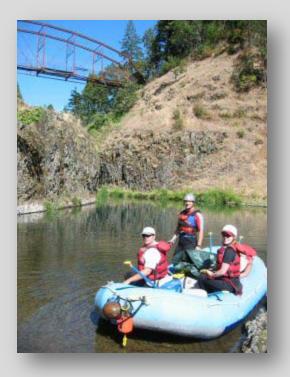


Percent of 2010 proposals



- Met scientific criteria
- Met criteria with qualifications
- Did not meet criteria
- Not applicable for this review

We concluded...





- Projects demonstrate improved data collection, analysis, and reporting
- A robust monitoring effort in a large geographic region with a complex legal and administrative structure is taking shape
- Projects are providing useful data to support adaptive management of the Fish and Wildlife Program

Council's 11 supplemental questions:

Review proposals mindful of Council's goal to reduce duplicative or excessive RM&E

Consider the extent to which each project is consistent with priority topics and data needs



ISRP approach to supplemental questions...

For individual proposals, Council's questions were addressed in the scientific review criteria and reflected in final proposal recommendation

For topical and geographic consideration of RM&E duplication and data gaps, proposals were grouped by geography and topic, including the 59 contextual projects, and are summarized in the programmatic review.



ISRP overall conclusion:

Few proposals had duplicative or excessive RM&E efforts, but...

- Better coordination and integration among projects is needed
- Strengthened emphasis on evaluation of field data also needed
- Benefits from high quality RM&E cannot be overemphasized; in some cases more may be beneficial



General Observations and Emerging Issues

Toxic Compounds

New chemicals termed "emerging contaminants" (modern pesticides and herbicides, pharmaceuticals, personal care products, flame retardants, etc.) deserve additional study

Some of the emerging contaminants have been shown to alter salmon swimming behavior, predator avoidance behavior, and foraging behavior

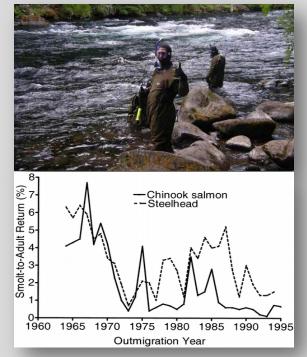


Confidence Levels and Other Statistical Considerations

Variation in project proposals, and in responses to ISRP requests for additional information concerning statistical rigor, suggest a need for continuing dialog.

Situations where improvement is often needed:

- Coded wire sampling
- PIT tag detection and shedding
- ➢Redd counts
- Evaluating supplementation
- Cost of measurement accuracy and precision
- Extrapolating results
- ➤More field experimentation
- Meta-analysis of data from multiple sources
- ➤Weight of evidence
- ➤Analyzing relationships between fish and habitat

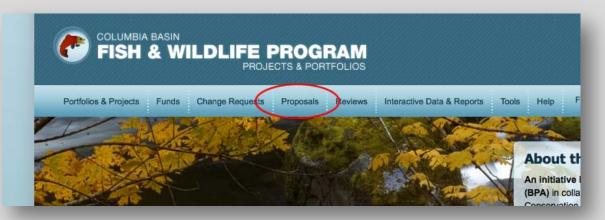


Key Programmatic Topics in RME & AP Review

- Ocean and Estuary
- Hydrosystem Passage RME and Related Life History Work
- Coded Wire Tag, Harvest, and Enforcement
- Predation and Invasive Species
- Lamprey
- Sturgeon
- Habitat Action Effectiveness Monitoring Basinwide
- Hatchery effectiveness, Impacts and Reform (HSRG & HGMPs) – Basinwide
- VSP, Hatchery Effectiveness, and Habitat Effectiveness
 Monitoring Gaps and Duplications by Species and
 Geographic Domain



Proposal Form and Content



Strengths

- Easy to access former reviews
- Easy to access annual reports and other project-related documents
- Budget information was relatively easy to follow

Weaknesses

- Did not work with all internet browsers
- Redundancy of sections (deliverables were identified under several objectives)
- Methods were selected from a menu of acceptable protocols. There needs to be additional information on how standard methods are applied for a specific objective