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April 29, 2010

## **DECISION MEMORANDUM**

**TO:** Council members

**FROM:** Council staff

**SUBJECT:** Recommendations for second group of BiOp fast-track proposals

**PROPOSED ACTION** Council staff recommends the Council approve the actions associated with the ten fast-track projects as defined and conditioned by staff.

### **SIGNIFICANCE**

These ten projects are part of a larger group of [19 fast-track projects](#) addressing the highest priority gaps as identified by the Bonneville/Action Agency/Council workgroups.

Of the ten projects, eight are recommended for funding now (some with conditions); one is recommended for funding of the fast track element only (with future consideration of the full proposal); and one is recommended for a response and resubmission to the ISRP. Table 1 provides a detailed summary of staff recommendations.

The fast-track projects are a subset of the projects that will be reviewed in the RM&E category review scheduled to begin in June. If recommended for funding now, the fast-track projects will not need to complete a new proposal form for use during the RM&E categorical review. The projects will, however, be included in the categorical review to provide the reviewers with a complete picture of RM&E actions currently funded, or proposed for funding, under the Council's program.

### **BUDGETARY/ECONOMIC IMPACTS**

The recommended planning budget for the fast-track proposals represents a not-to-exceed budget for the remainder of Fiscal Year 2010 and Fiscal Years 2011 through 2013. All proposals represent expense funding.

The recommended budgets do not assume any cost savings that may be achieved by Bonneville during contracting. During the four year budget period, adjustments can and should be made as necessary during contracting. Actual spending by Bonneville for each project, whether higher or

lower than the recommended planning budget, must be sufficient to maintain project integrity. In recommending the work and the planning budget, the Council has the following expectations:

1. This set of projects will be reviewed in context in the larger RM&E/Artificial Production Category Review.
2. If the ISRP finds that, in the context of the larger RM&E/Artificial Production Category Review, any of the nine projects being recommended for funding (in full or in part) now are no longer relevant, are duplicative, or are in need of modification based on the categorical review, the Council will consider revising its recommendation to BPA.
3. The sponsors and Bonneville will work to integrate the Independent Scientific Review Panel's (ISRP's) suggestions and staff recommendations into project contracts and reporting requirements.
4. Bonneville will inform the Council of final contract decisions.

Project #	Title	Proponent	SOY 2010 Budget	FY10 Est. Fast Track Elements 2010	Annual average FY 2011-2013	Not-to-exceed staff budget recommendation for FY2010-2013	Meets scientific criteria	Staff Recommendation
1989-098-00	Idaho Supplementation Studies	IDFG	\$1,940,572	\$50,312	\$2,042,273	\$8,291,525	In Part (Qualified)	Council staff recommends this project for implementation with the condition that the sponsor provide the information requested by the ISRP as an addendum to their existing proposal as part of the categorical review. In addition, the sponsor must provide the preliminary draft analysis report to the ISRP for review in 2013.
1990-055-00	Idaho Steelhead Monitoring and Evaluation Studies	IDFG	\$740,000	\$67,012	\$828,467	\$3,292,412	Yes (Qualified)	Council staff recommends this project for implementation with the condition that the sponsor provide an addendum to their existing proposal addressing information needs associated with Programmatic Issue C as part of the categorical review.
1991-073-00	Idaho Natural Production Monitoring	IDFG	\$804,266	\$76,135	\$892,110	\$3,556,732	Yes	Council staff recommends this project for implementation.
1998-007-02	Grand Ronde Supplementation: Lostine River Operation and Maintenance and Monitoring and Evaluation	Nez Perce Tribe	\$597,795	\$0	\$790,743	\$2,970,023	Yes (Qualified)	Council staff recommends this project for implementation. The qualification regarding measuring of natural-origin spawners needs to be addressed and confirmed in a regional approach to ensure adequacy of the current monitoring in the Grande Ronde subbasin.
2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP): The design and evaluation of monitoring tools for salmon populations and habitat in the Interior Columbia River Basin.	NW Fisheries Science	\$4,668,875	\$1,561,176	\$1,051,479	\$9,384,488	In Part	Council staff recommends this project's fast-track elements be approved for FY 2010. This will ensure that the PIT arrays can be installed during the in-river work window in September and October of this year. Implementation of the entire project's scope will be deferred and reviewed prior to the RM&E/Artificial Production Category Review. <i>Note: Bonneville continues to work with sponsor on the costs for purchase and implementation of the pit tag arrays. Resulting budget adjustments may apply to this and other fast</i>

Project #	Title	Proponent	SOY 2010 Budget	FY10 Est. Fast Track Elements 2010	Annual average FY 2011-2013	Not-to-exceed staff budget recommendation for FY2010-2013	Meets scientific criteria	Staff Recommendation
								<i>track projects.</i>
2010-028-00	Implement a Rotating Panel Sampling Adult Steelhead in Tributaries of the Tucannon and Snake rivers	WDFW, NOAA	NA	\$25,000	\$49,607	\$173,822	Yes	Council staff recommends this project for implementation.
2010-030-00	Estimate viable salmon population (VSP) parameters for Yakima steelhead major population group (MPG)	Yakama Nation, WDFW	NA	\$644,271	\$623,979	\$2,516,207	Yes (Qualified)	Council staff recommends this project for implementation. This recommendation is based on the condition that the capacity issue is resolved in contracting. In addition, the linkages to other projects are to be addressed in a form of an addendum as part of the RM&E/Artificial Production Category Review.
2010-032-00	Innaha River Steelhead Status Monitoring (was 200205600)	Nez Perce Tribe	NA	\$648,269	\$430,171	\$1,938,781	Yes	Council staff recommends this project for implementation.
2010-033-00	Estimate the Relative Reproductive Success of Hatchery and Natural Origin Steelhead in the Methow River Basin	WDFW	NA	\$225,801	\$237,281	\$937,645	No	Council staff recommends that this project respond to the ISRP's request for a revised proposal and a complete response ahead of the RM&E/Artificial Production Category Review so that the needed actions associated with this project can be implemented in FY 2010 if a favorable ISRP review and Council recommendation is received.
2010-036-00	Expansion of Washington's Tag Recovery Program in the Lower Columbia Region to Improve Fisheries and Viable Salmonid Population Monitoring	WDFW	NA	\$1,000,000	\$882,596	\$3,647,789	Yes	Council staff recommends this project for implementation.
						Total		\$36,709,424

## **BACKGROUND**

In the summer and fall of 2009, the Bonneville/Action Agency/Council workgroups identified 27 projects necessary to meet high priority FCRPS reasonable and prudent alternative (RPA) gaps.

The fast-track review process began on December 14, 2009 with the Council receiving 19 complete project proposals by the January 25, 2010 deadline. The 19 project proposals were sent to the ISRP for science review.

The ISRP's preliminary review was issued on February 24, 2010 (ISRP document 2010-7). The ISRP found that nine of the 19 proposals met scientific review criteria (Table 2). Of those nine proposals meeting scientific review criteria, five were qualified based on issues that could be dealt with during contracting. On April 14, 2010, the Council recommended the nine fast-track proposals to Bonneville for implementation.

The remaining ten proposals received an "in part/response requested"<sup>1</sup> recommendation, and on February 24, 2010 a request for a response to the ISRP for the additional information was sent to project proponents. On March 25, 2010 responses were received and on April 15, 2010, the ISRP provided their final review for the fast-track proposals (ISRP document 2010-10).

Of the ten proposals reviewed, the ISRP found that four met scientific review criteria, three received a "qualification"; one received an "in part (qualified)"; one remained at an "in part"; and one received a "does not meet scientific review criteria."

## **ANALYSIS**

Two primary purposes of the categorical review are to highlight any obvious duplication of work and to understand the relationships between projects in that category. Thus, as the ISRP and the Council review these fast-track projects in context with other projects during the RM&E/Artificial Production Category Review, we will be looking for ways to streamline and strengthen the actions in the category to ensure a more effective program.

The categorical review approach also facilitates identification of programmatic issues. In this fast-track review, the ISRP identified five programmatic issues (see Attachment 1) for sponsors to consider when submitting proposals for the RM&E/Artificial Production Category Review. Some of these fast track projects will need to address the programmatic issues within the larger RM&E categorical review, in the form of an addendum to the current proposal.

Following is a brief description and status of the ten remaining fast-track projects and staff recommendations.

### **Project #1989-098-00, Idaho Supplementation Studies**

The goal of this ongoing project is to evaluate the effects of supplementation on juvenile and adult spring/summer Chinook abundance by evaluating changes in natural productivity after supplementation has stopped. The study design evaluates various

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<sup>1</sup> The ISRP found that two of the ten proposals justified the fast-track component of their projects but the overall project proposals required a response.

supplementation strategies and provides supplementation recommendations. The project is a multi-agency effort covering 30 streams throughout the Salmon and Clearwater subbasins.

This project implements RPAs 50.6 and 64.2 of the 2008 FCRPS Biological Opinion. Implemented by IDFG, the project is currently operating at a \$1,940,572 FY 2010 budget. The annual average project expense budget for Fiscal Years 2011 through 2013 is \$2,042,273.

The ISRP found the project met science review criteria – in part (qualified). The ISRP requests additional information associated with the coefficient of variation (Programmatic Issue C) as an addendum to their existing proposal in the categorical review. In addition, the ISRP requests a review of the preliminary analysis report<sup>2</sup> in the next few years.

Staff Recommendation: Based on the ISRP review, the Council staff recommends this project for implementation with the condition that the sponsor provide the information requested by the ISRP as an addendum to their existing proposal as part of the categorical review. In addition, the sponsor must provide the preliminary draft analysis report to the ISRP for review in 2013.

### **Project #1990-055-00, Idaho Steelhead Monitoring and Evaluation Studies**

The purpose of this ongoing project is to monitor and evaluate the status and trends of wild steelhead populations in Idaho. This project assesses abundance, productivity, spatial structure, and diversity at the level of population and major population groups.

This project implements RPA 50.6 of the 2008 FCRPS Biological Opinion. Implemented by IDFG, the project is currently operating at a \$740,000 FY 2010 budget. The annual average project expense budget for Fiscal Years 2011 through 2013 is \$828,467.

The ISRP found this project meets scientific review criteria (qualified) based on the sponsor submitting, as part of the RM&E/Artificial Production Category Review, their sampling design to ensure sufficient detail is provided to address the needs of the BiOp and Snake River M&E strategy (see Programmatic Issue C).

Staff Recommendation: Based on the ISRP review, the Council staff recommends this project for implementation with the condition that the sponsor provide an addendum to

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<sup>2</sup> The evaluation phase of the project commenced in 2008 with continued evaluation of natural production in all study streams to determine the production and productivity responses of the natural populations after supplementation ended. Adult evaluation will continue for one full Chinook salmon generation after the end of supplementation treatments (2012), and their resulting progeny will be evaluated through the smolt migration in 2014.

their existing proposal addressing information needs associated with Programmatic Issue C as part of the categorical review.

**Project #1991-073-00, Idaho Natural Production Monitoring**

This project monitors and evaluates the status and trends of wild Chinook spring/summer salmon populations in Idaho. The project also assesses abundance, productivity, spatial structure, and diversity at the population and major population group level.

This project implements RPAs 50.4, 50.5 and 50.6 of the 2008 FCRPS Biological Opinion. Implemented by IDFG, the project is currently operating at \$804,266 FY 2010 budget. The annual average project expense budget for Fiscal Years 2011 through 2013 is \$892,110.

The ISRP found this project meets scientific review criteria. The sponsor's response and the revised narrative addressed the issues raised by their preliminary review.

Staff Recommendation: Based on the ISRP review, the Council staff recommends this project for implementation.

**Project #1998-007-02, Grand Ronde Supplementation: Lostine River Operation and Maintenance and Monitoring and Evaluation**

This ongoing project provides for operation and maintenance of adult collection and juvenile acclimation facilities and the monitoring and evaluation associated with supplementation of Lostine River Chinook salmon in northeast Oregon. Monitoring at the adult weir includes the collection of genetic and biological data. Additionally, the Nez Perce Tribe (NPT) conducts spawning ground surveys with co-managers for life history characteristics and mark-recapture population estimates. Hatchery produced juveniles are also monitored for post release performance. The proposal adds two new activities associated with the basinwide RME strategy: extended weir operation to support quantification of adult steelhead escapement and integration of the NPT's portion of captive broodstock evaluations<sup>3</sup> under one contract starting in 2011.

This project implements RPAs 50.6, 64.1 and 64.2 of the 2008 FCRPS Biological Opinion. Implemented by NPT, the project is currently operating at a \$597,795 FY 2010 budget. No additional increase to the budget is necessary for the fast-track elements of the project. The annual average project expense budget for Fiscal Years 2011 through 2013 is \$790,743.

The ISRP provided this project with a meets scientific review criteria (qualified) to ensure project actions in the subbasin will account for redds produced from hatchery and natural spawners. The ISRP also noted the "productive spirit" with which the NPT took the ISRP's initial comments resulted in a more transparent proposal subject to productive evaluation.

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<sup>3</sup> Currently conducted under Project #2007-404-00, *Spring Chinook Captive Propagation-Oregon*.

Staff Recommendation: Based on the ISRP review, the Council staff recommends this project for implementation. The qualification regarding measuring of natural-origin spawners needs to be addressed and confirmed in a regional approach to ensure adequacy of the current monitoring in the Grande Ronde subbasin.

**Project # 2003-017-00, *Integrated Status and Effectiveness Monitoring Program (ISEMP): The design and evaluation of monitoring tools for salmon populations and habitat in the Interior Columbia River Basin***

The Integrated Status and Effectiveness Monitoring Program (ISEMP) is an ongoing collaborative effort to design, test, implement and evaluate Status and Trends Monitoring and watershed-scale Effectiveness Monitoring for management actions impacting salmon and steelhead populations and habitat in the Interior Columbia River Basin. The overarching goal of this project is to provide a framework for the development of regionally supported status and effectiveness monitoring and evaluation methods that meet the region's data and information needs with regards to management of anadromous salmonid populations and habitat. Currently, the project has established baseline data collection efforts in the Wenatchee and Entiat Subbasins, the John Day Subbasin, and the Salmon Subbasin. These efforts are necessary for testing sampling design, data management, implementation and coordination logistics and protocols. In addition, the project is also in the process of designing and testing approaches to watershed-scale effectiveness monitoring, and it is this component of the project that offers the most exciting new opportunities for the collaborations developed so far.

This project implements RPAs 50.4 and 50.6 of the 2008 FCRPS Biological Opinion. Implemented by NOAA, the project is currently operating at a \$4,668,875 FY 2010 budget. The anticipated budget for fast-track actions in FY 2010 is \$1,641,176.<sup>4</sup> Approximately \$1,200,000 of this budget is for the purchase and installation of PIT tag arrays. At this time, total project costs in the out- years have not been finalized.

The ISRP recommends moving forward with the fast-track components that met review criteria. However, due to the complexity, magnitude, and the regional importance of this project as a whole, the ISRP has suggested it continue to review this project over the next few months in advance of the larger categorical review in order to inform the larger set of projects in the categorical review that are linked to this collaborative effort. The proponent is meeting with the ISRP on April 30<sup>th</sup> for an extensive presentation and it is anticipated that this will provide useful interaction and direction for the response to the ISRP. If the response is provided shortly after their presentation we anticipate that the ISRP will provide a final review in June/July.

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<sup>4</sup> The fast track elements for project 2003-017-00 included the expansion of habitat sampling survey efforts in the upper-Columbia (Wenatchee/Entiat ISEMP) and site selection, permitting, construction, and operation of six new tandem PIT tag arrays in the Imnaha River, Joseph Creek, Lolo Creek, South Fork Clearwater River, Lower Grande Ronde River, and Upper Salmon River. In addition, the PIT tag array fast-track element included improvements to existing tandem arrays in Big Creek (Middle Fork Salmon River) and Valley Creek (upper Salmon River) as well as operation and maintenance funding for those locations.



**Staff Recommendation:** Based on the ISRP review, the Council staff recommends this project's fast-track elements be approved for FY 2010. This will ensure that the PIT arrays can be installed during the in-river work window in September and October of this year. Implementation of the entire project's scope will be deferred and reviewed prior to the RM&E/Artificial Production Category Review.

**Project # 2010-028-00, Implement a Rotating Panel Sampling Adult Steelhead in Small Tributaries of the Tucannon and Snake rivers**

This new start project proposes to sample adult steelhead in Asotin Creek and Tucannon River tributaries, where little or no previous sampling has been conducted, to provide the following population information: 1) adult abundance; 2) the proportion of hatchery fish returning to spawning areas, as well as their origins; 3) population age structure; 4) proportional distribution of the populations; and 5) genetic characterization of Snake River Basin steelhead groups; and 6) the relationships among core steelhead populations of the Lower Snake River Major Population Group. In addition, the project intends to conduct spawning surveys in selected tributaries (e.g. Almota Creek) where effective redd enumeration is most feasible to compare with trap counts for evaluation of several redd sampling designs (e.g. probabilistic sampling) for estimating variance.

This project implements RPA 50.6 of the 2008 FCRPS Biological Opinion. The WDFW will implement the project. The proposed FY 2010 budget is \$25,000. The project's annual average expense budget for Fiscal Years 2011 through 2013 is \$49,607.

The ISRP found that this project meets scientific review criteria. The ISRP provided additional comments to the proponents that are intended to strengthen the project.

**Staff Recommendation:** Based on the ISRP review, the Council staff recommends this project for implementation.

**Project # 201003000, Estimate Viable Salmon Population (VSP) Parameters for Yakima Steelhead Major Population Group (MPG)**

This new start project expands RM&E activities conducted by the co-managers in the Yakima Basin by the Yakama Nation (YN) and Washington Department of Fish and Wildlife (WDFW) to better evaluate VSP parameters (abundance, productivity, spatial structure, and diversity) for Yakima steelhead populations. This proposal builds upon the existing infrastructure and monitoring implemented through Project 1995-063-25, *Yakima River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project*.

This project implements RPAs 50.6, 56.3, 62.5, and 63.1 of the 2008 FCRPS Biological Opinion. The YN and WDFW will implement the new project. The proposed FY 2010 budget is \$644,271. The project's annual average expense budget for Fiscal Years 2011 through 2013 is \$623,979.

The ISRP provided this project with a meets scientific review criteria (qualified) based on the need to provide description of the linkages with other projects (i.e., #1995-063-25) and the concerns regarding the capacity to complete the proposed work.<sup>5</sup>

**Staff Recommendation:** Based on the ISRP review, the Council staff recommends this project for implementation. This recommendation is based on the condition that the capacity issue is resolved in contracting. In addition, the linkages to other projects are to be addressed in a form of an addendum as part of the RM&E/Artificial Production Category Review.

**Project # 201003200, *Innaha River Steelhead Status Monitoring (was 200205600)***<sup>6</sup>

This new start project proposes to quantify adult steelhead escapement and spatial distribution within the Innaha River Subbasin. The goal of establishing steelhead population status information in the Innaha River Subbasin is intended to support a scientifically defensible fisheries management process for the recovery of this A-run Snake River Steelhead ESU population.

This project implements RPAs 50.6, 62.4 and 64.2 of the 2008 FCRPS Biological Opinion. The NPT will implement the new project. The proposed FY 2010 budget is \$648,269. The project's annual average expense budget for Fiscal Years 2011 through 2013 is \$430,171.

The ISRP found that this project meets scientific review criteria. The ISRP commented on the helpful details the proponents provided in their response. The ISRP also noted the programmatic issue surrounding the coefficient of variation is relevant to this project.

**Staff Recommendation:** Based on the ISRP review, the Council staff recommends this project for implementation.

**Project # 201003300, *Estimate the Relative Reproductive Success of Hatchery and Natural Origin Steelhead in the Methow River Basin***

This new start project proposes to take advantage of recent technological advances in genetics to monitor the reproductive success of hatchery and natural steelhead in the Upper Columbia (i.e. Methow River Subbasin). Specifically, the proponents will use a DNA-based pedigree approach to do the following: 1) directly measure the relative reproductive success of hatchery and natural-origin steelhead in a the natural environment; 2) determine the degree to which any differences in reproductive success between hatchery and natural steelhead can be explained by measurable biological characteristics such as run timing, morphology or behavior; and 3) estimate the relative

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<sup>5</sup> It is important to note that the need for a comprehensive review was identified as part of the ISRP's review of the YKFP projects as part of the review associated with 2007 – 2009. In that review (ISRP document 2006-6), the ISRP provide numerous "qualified" reviews based on the need for a better understanding of project relationships.

<sup>6</sup> This project was proposed as a new project in 2002 (#2002-056-00) and received favorable (fundable) reviews, but due to the lack of money and priority this project was not funded at that time.

fitness of hatchery-lineage steelhead after they have experienced an entire generation in the natural environment.

This project implements RPAs 64.1, 64.2 and 64.3 of the 2008 FCRPS Biological Opinion. The WDFW will implement this project. The proposed FY 2010 budget is \$225,801. The project's annual average expense budget for Fiscal Years 2011 through 2013 is \$237,281.

The ISRP found that this project does not meet scientific review criteria and requested the proponents develop a revised proposal that includes a complete response, in a point-by-point fashion, to the ISRP's preliminary review. The ISRP suggests that this be done as part of the RM&E/Artificial Production Category Review.

Staff Recommendation: Based on the ISRP review, the Council staff recommends that this project respond to the ISRP's request for a revised proposal and a complete response ahead of the RM&E/Artificial Production Category Review so that the needed actions associated with this project can be implemented in FY 2010 if a favorable ISRP review and Council recommendation is received.

**Project # 201003600, *Expansion of Washington's Tag Recovery Program in the Lower Columbia Region to Improve Fisheries and Viable Salmonid Population Monitoring***

The goals of this new start project are: 1) to address high priority deficiencies in the Coded Wire Tag (CWT) program; 2) to expand Washington Department of Fish and Wildlife's (WDFW) Lower Columbia River CWT program to include a recovery program for all tags, including PIT tags, and marks sampled in fisheries and escapement programs; 3) to provide point and interval estimates for recovered Pit and CWT tags by stratum when sample sizes are sufficient; 4) to have a single framework for tag recovery and salmon escapement monitoring programs, to report on Viable Salmonid Population (VSP) metrics for Chinook and coho salmon; and 5) to make this information available to policy makers, planners, managers, and others. This proposal builds on the existing framework of Washington's CWT program.

This project implements RPA 62.4 of the 2008 FCRPS Biological Opinion. The WDFW will implement this new project. The proposed FY 2010 budget is \$1,000,000. The project's annual average expense budget for Fiscal Years 2011 through 2013 is \$882,596.

The ISRP found that this project meets scientific review criteria.

Staff Recommendation: Based on the ISRP review, the Council staff recommends this project for implementation.

**Attachment 1. Programmatic comments from ISRP’s initial and final review of BiOp fast-track research, monitoring, and evaluation proposals (ISRP document 2010-10).**

**A. Need for independent peer review of the coordinated monitoring strategy.** These fast-track proposals are intended to fill critical “gaps” in the collection of data for estimating Viable Salmonid Population parameters for Evolutionarily Significant Units of salmon (abundance, productivity, spatial distribution, and diversity) to meet requirements of the 2008 Biological Opinion for the Federal Columbia River Power System. In 2009 there was an effort to match the requirements for collecting and analyzing population data with existing Fish and Wildlife Program projects. This initial effort was followed by workshops attended by most project proponents to “ground truth” the preliminary analyses and develop a coordinated M&E program for anadromous salmon in the Columbia River Basin. The fast-track projects and many other projects that will be reviewed during the summer of 2010 are intended to serve as essential components of the comprehensive M&E strategy. Many proposals provided a link to the current draft of the comprehensive strategy, but that draft has not yet been independently peer reviewed. Moreover, the timeframe for the fast track review did not permit thorough inspection of the linked document. Finally, without adequate review and linkage it is not possible to verify that the new tasks and work elements will provide the information desired. Before the Fish and Wildlife Program RME categorical review is initiated, the coordinated RME strategy should be peer reviewed by the ISRP (and perhaps ISAB).

**B. Data precision and bias requirements for VSP parameter estimates.** The ISRP understands that the initial screening of projects collecting data to fulfill RPA obligations primarily involved identifying which projects included PISCES work elements appropriate for estimating VSP parameters. This initial screening apparently did not involve confirmation of data quality. The 2009 fall workshops with project proponents were, in part, intended to confirm that the projects were collecting the appropriate data, and that data were gathered with sufficient precision. The methods for making this evaluation and the outcome have not yet been explicitly presented to the ISRP. This should be addressed by the completion of the Fish and Wildlife Program RME review during the summer/fall 2010. If deficiencies exist, it would be beneficial and timely to identify them before initiating another three to five year commitment for funding.

**C. Data precision presentations in proposals.** Many of the proposals identified the goal of estimating abundance with a 15% coefficient of variation (CV – the ratio of the standard deviation to the mean of a data set) basing that goal on ESA monitoring guidance for anadromous salmon and steelhead (Crawford and Rumsey 2009). The reference to a CV of 15% (Crawford and Rumsey 2009) has not yet been established as a reasonable regional data standard. The statistical and biological basis for the recommendation in Carlile et al. (2008) as cited by Crawford and Rumsey (2009) has not been reviewed. The justification that the standard represents a realistic goal for planning because it corresponds to an acceptable risk (one year or one stock in six) of failing to label a stock of concern when warranted, may not be a useful standard in all circumstances. The observation that the standard has proven to be attainable for many escapement estimation studies does not mean that it is the appropriate data standard. Further justification for sample size targets is required.

There is a need for the region to develop a standard for data precision that achieves the certainty and risk tolerance needed for management decisions. Justification for the standard should be

transparent for both scientific and policy applications. Projects should address the precision of the data and whether they meet a regional standard. None of the proposals provided evidence that past data collection efforts met this standard, nor was any explicit evidence provided to demonstrate that this degree of precision could be achieved with the proposed level of sampling.

**D. Comprehensive description of projects in proposals.** Many of the projects have been ongoing for twenty or more years. The proposals for most of the long-standing projects did not provide a concise description of the project in terms of its purpose and objectives for the subbasin, province, and basin. For those reviewers unfamiliar with the projects, the proposals were sometimes overwhelming. The ISRP believes that clear but brief summaries of the purpose, goals, and history of the projects, in the technical background and project history sections of the proposal should document the evolution and value of these projects including progress toward a project's goals. As members of project staff, Council, and the ISRP change, maintaining the continuity of the project is important.

**E. Identify Fast Track tasks and work elements.** With notable exceptions, most projects were not explicit about which actions (and associated tasks and work elements) actually were the fast track components. Very few of the proposals indicated how past activities were insufficient and what additional tasks were included to remedy those deficiencies. For the summer 2010 RME review, the ISRP recommends that project proponents explicitly address tasks and work elements that are being expanded to address findings and recommendations from the comprehensive RME strategy.