Fiscal Year 2018 Statement of Work
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General ISRP Review Responsibilities

The 1996 amendment to the Northwest Power Act directed the Northwest Power and Conservation Council (Council) to appoint an 11-member panel of independent scientists and additional peer review groups. These scientists provide advice and information regarding scientific aspects of projects that the Council may recommend for funding by the Bonneville Power Administration (Bonneville). The Independent Scientific Review Panel (ISRP) and peer review groups have responsibilities in three areas:

• Review projects proposed for Bonneville funding to implement the Council’s Columbia River Fish and Wildlife Program (Program)

  The Northwest Power Act directs the ISRP to review projects that are proposed for Bonneville funding to implement the Council’s Program. The Act specifies the review standards that the ISRP is to use and the kinds of recommendations to make to the Council. The Council must fully consider the ISRP’s report prior to making its funding recommendations to Bonneville and must explain in writing if the Council’s recommendations differ from the ISRP’s.

• Review program results

  The 1996 amendment also directs the ISRP, with assistance from the Scientific Peer Review Groups, to review annually the results of prior-year expenditures based upon the project review criteria and submit its findings to the Council. The retrospective review should focus on the measurable benefits to fish and wildlife made through projects funded by Bonneville. The ISRP’s findings should provide biological information for the Council’s ongoing accounting and evaluation of Bonneville’s expenditures and the level of success in meeting the objectives of the Fish and Wildlife Program. In addition, as part of the ISRP’s annual retrospective report, the ISRP should summarize major basinwide programmatic issues identified during project reviews.

• Review projects funded through Bonneville’s reimbursable program

  In 1998, the U.S. Congress’ Senate-House conference report on the FY 1999 Energy and Water Development Appropriations bill directed the ISRP to review the fish and wildlife projects, programs, or measures included in federal agency budgets that are reimbursed by Bonneville, using the same standards and making recommendations as in its review of the projects proposed to implement the Council’s program.

  The four major components of the reimbursable program are:
  1) Columbia River Fisheries Mitigation Program (Corps of Engineers),
  2) Fish and Wildlife Operations and Maintenance Budget (Corps of Engineers),
  3) Lower Snake River Compensation Plan (U.S. Fish and Wildlife Service), and
  4) Leavenworth Hatchery (Bureau of Reclamation).
Specific FY 2018 Reviews

For FY 2018, ISRP review assignments comprise seven categories:

1) Research, Monitoring, and Evaluation (RM&E) plans
2) Category and Geographic reviews
3) Targeted reviews including new proposals or project scope changes submitted through the Council and Bonneville's Budget Oversight Group or Cost Savings Workgroup
4) Three-Step reviews for major capital construction projects
5) Follow-up reviews
6) Reimbursable projects reviews
7) Results reviews (Retrospective Reports)

Further details on the reviews are provided below; some of the categories are combined in the descriptions. The ISRP’s total FY 2018 budget to complete these and other potential reviews requested by the Council is $500,000.

1. Research, Monitoring, and Evaluation (RM&E) Reviews

In FY 2018, the ISRP will continue its shared role with the ISAB in reviewing regional plans aimed at monitoring and evaluating the status of fish and wildlife populations in the Basin and the effectiveness of projects at benefiting those populations. The ISRP and ISAB closely coordinate reviews of RM&E plans and products, such as the Council’s Research Plan, draft Council documents related to Program RM&E activities and guidance, Pacific Northwest Aquatic Monitoring Partnership (PNAMP) products, Action Agency RM&E plans, and RM&E proposals. In FY 2018, the ISRP will assist with the further development of the Council’s RM&E program including the research plan, high-level indicators, science-based assessments, data management, and habitat monitoring and evaluation guidance and implementation strategies.

2. Category and Targeted Reviews

To implement the Fish and Wildlife Program, Bonneville and the Council regularly solicit and review projects intended to benefit fish and wildlife populations affected by the Federal Columbia River Power System (FCRPS). Reviews are designed to meet multiple purposes including project improvement, program accountability, project prioritization and selection, project risk and cost assessment, coordination across projects, and information sharing. Review processes have taken many forms including program-wide solicitations, rolling provincial reviews, targeted solicitations, and most recently, Category and Geographic reviews. Review processes also take into account the projects’ review histories and the status of the evolving Fish and Wildlife Program. The ISRP helps design the scientific evaluation component of the review process.

RM&E Category – In FY 2018, it is anticipated that research, monitoring, and evaluation projects will be reviewed. Many projects have RM&E components, and Council staff are identifying
research-focused projects that are testing hypotheses, approximately 30 projects, for the initial RM&E review. Status and trend and other long-term monitoring projects will likely be on a different review track. The reviews will focus on the RM&E projects’ contributions toward addressing critical uncertainties and evaluating the effectiveness of recovery and mitigation actions in meeting Program objectives. The ISRP will have access to project summaries, annual reports, and presentations by project proponents. The exact process and schedule has yet to be defined.

**Targeted solicitations to address Program priorities** – The Council may develop targeted solicitations to address emerging priorities listed in the 2014 Fish and Wildlife Program (see pages 115-116), for example, to solicit proposals to aid sturgeon recovery or address priority research needs. New proposals or scope changes may be identified and submitted through the Council and Bonneville’s Budget Oversight Group or Cost Savings Workgroup. The ISRP would review any proposals submitted. In 2016, the ISRP reviewed a Proposed Habitat Suitability Assessment for Anadromous Salmonid Reintroduction in the Blocked Areas of the U.S. portion of the Upper Columbia Basin (ISRP 2016-1) and, in 2015, assisted the Council and Bonneville in developing a targeted solicitation for a Hatchery Asset Assessment (ISRP 2015-9).

3. Three-Step and Follow-up Reviews of Fish and Wildlife Program Projects

On an ongoing basis, the ISRP participates in reviews of projects¹ that 1) have unresolved scientific issues identified in previous ISRP reviews, which the Council has recommended that project proponents formally address or 2) are subject to the Council’s Step Review process because they are complex and expensive involving planning, design, construction, and implementation phases. The reviews are iterative, and schedules depend on submittal of materials by the project proponents. For FY 2018, the Council will likely request the ISRP to review many of the projects listed below. Most of the potential review assignments below are Step Reviews, but several originated in Category and Geographic Reviews. There were many ISRP qualifications in the Geographic Review of habitat projects for anadromous fish restoration and the Category Reviews for RM&E, artificial production, and resident fish projects; many qualifications entail follow-up reports by the project proponents and subsequent ISRP review. Some follow-up reviews may include site visits or meetings with the project proponents and the ISRP. The list below describes a sample of the projects with qualifications requiring significant reviews. Many other projects (not listed here) have qualifications that call for future ISRP reviews.

A. Anadromous Salmon and Steelhead: Hatchery Master Plans, Blocked Area Habitat Assessment, and Habitat Restoration

*Master Plan for the Hood River Production Program (HRPP)* – This program is jointly managed and evaluated by the Warm Springs Tribes and Oregon Department of Fish and Wildlife

¹ These projects include some that are categorized as Fish Accord or BiOp projects.
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(Projects 1988-053-03, 1988-053-04, 1988-053-07, 1988-053-08, and 1988-053-15). The physical habitat project (1998-021-00) is managed by the Warm Springs Tribes. The ISRP conducted a Step One review of this master plan in 2008 (ISRP 2008-10) and recommended Meets Scientific Review Criteria – In Part (qualified). Overall, the ISRP found the master plan to be an impressive step forward in concept, decision-logic, organization, and scientific justification. However, the ISRP qualified the recommendation because of concerns involving acclimation ponds and residualism, potential use of hatchery-origin broodstock, and justification for assessment methods. In response to the ISRP’s concerns and the Council’s subsequent recommendation, a final Step Review document might be submitted in FY 2018.

Klickitat Master Plan: Yakima Fisheries Project Design and Construction, Project 1988-115-25 (1995-068-00 and 1997-013-35) – The ISRP has participated in an iterative Step Review for the Klickitat project. In FY 2015, the ISRP reviewed a Step One master plan submittal (ISRP 2005-7) and a response to that review (ISRP 2005-16). A 2008 ISRP review (ISRP 2008-6) found the revised master plan to be a well-balanced, relatively thorough plan that was generally responsive to past ISRP comments. The ISRP noted some issues that could be addressed in future step reviews. The ISRP completed an initial Step Two review in 2012 and a response review in 2013 (ISRP 2013-1). The ISRP review split the master plan into three components. The ISRP found that the McCreedy Creek Steelhead Supplementation and Spring Chinook Integrated Harvest and Colonization components met criteria with qualifications that could be addressed in Step Three. However, the ISRP requested further response to issues regarding the Segregated Steelhead Harvest component. A response review is anticipated in FY 2018.

Walla Walla Spring Chinook Master Plan, Project 2000-038-00 – In September 2013, the ISRP completed a review of a revised master plan and found the plan to meet criteria for Step One. (ISRP 2013-10; see also ISRP 2010-17). To address Step Two concerns, the project proponent submitted a monitoring and evaluation plan. In August 2015, the ISRP requested a response including a revised monitoring and evaluation plan and additional discussion of lingering issues raised in the Step One review. A response review is anticipated in FY 2018.

Yakima Subbasin Summer and Fall Run Chinook and Coho Salmon Hatchery Master Plan, Project 1988-115-25 – In July 2013, the ISRP completed a response review concerning the master plan. The ISRP recommended that the master plan met scientific review criteria but raised a number of qualifications that could be addressed in Step Two (ISRP 2013-8). A Step Two submittal is anticipated in FY 2018.

Mid-Columbia Coho Restoration Master Plan, Project 1996-040-00 – In April 2017, the ISRP reviewed a revised master plan as part the Council’s Step Review process (ISRP 2017-4). The ISRP requested a two-part response that the proponents (1) consult with CRITFC or other regional geneticists to evaluate the benefits and costs of a breeding program that would selectively use coho capable of ascending Tumwater Canyon, and (2) with assistance from geneticists, determine if existing genetic samples can be used to track the ability of progeny produced from four different types of parental crosses to ascend Tumwater Canyon. The Council and ISRP asked that a report describing the results of these consultations be submitted
to the ISRP to determine if the project fully meets scientific review criteria. A response is anticipated in FY 2018.

*Crystal Springs Fish Hatchery and Programs for Snake River Chinook Salmon and Yellowstone Cutthroat Trout, Project 2008-906-00* – For Step One, the ISRP conducted two reviews of this project’s master plan ([ISRP 2011-17](#) and [ISRP 2012-8](#)). In the reviews, the ISRP found the master plan and responses to be well organized, detailed, and thorough. The ISRP recommended that the project met scientific review criteria with some qualifications pertaining to both the Chinook salmon and Yellowstone cutthroat trout elements of the project. Further Step review related to these qualifications is anticipated in FY 2018.

*Spokane Tribe Habitat Assessment in Blocked Areas, Project 2016-003-00* – For ISRP and Council review, the project proponents will develop a summary of their findings from their Intrinsic Potential modeling within the blocked area and evaluation of existing habitat data, along with the Colville Tribe’s Columbia River mainstem spawning habitat surveys, EDT modeling, and risk assessment. The results of these studies will be considered by the Council and relevant entities to determine whether to proceed to the Program’s Phase II for reintroduction, which moves from studying to designing and testing reintroduction strategies. A review is anticipated in FY 2018.

*John Day Habitat Enhancement Implementation Strategy, Project 2007-397-00* – The ISRP has participated in an iterative review of the Confederated Tribes of the Warm Springs Reservation’s project with multiple responses ([ISRP 2017-8](#), [ISRP 2016-13](#), [ISRP 2016-4](#), [ISRP 2013-11](#); see also [ISRP 2017-2](#)). On July 25, 2017, rather than continuing the response-loop process, the ISRP recommended a face-to-face meeting with the project proponents to address remaining concerns. The goals of the meeting would be (1) to open a more efficient dialogue for aligning the visions of the ISRP and CTWSR for effective restoration and enhancement, and (2) for the ISRP to learn more about specific elements of the Strategy. A meeting is scheduled for October 4 and 5, 2017.

*Grande Ronde Model Watershed, Project 1992-026-01* – In response to the Council and ISRP recommendation for the Umbrella Project Review ([ISRP 2017-2](#)), the project proponents are developing a synthesis report including a landscape-level evaluation of over 25 years of habitat restoration work. The ISRP plans to meet with the project proponents on October 3 and 4, 2017 to observe their project selection process, discuss adaptive management, and identify what analyses and summaries the synthesis report should include.

### B. Lamprey

In 2012, the ISAB reviewed the *Synopsis of Lamprey-Related Projects Funded through the Columbia River Basin Fish and Wildlife Program*. The ISAB found that the Synopsis demonstrated the type of information being collected about Pacific lamprey but did not adequately compile and evaluate existing lamprey findings ([ISAB 2012-3](#)). In FY 2018, a revised synthesis might be submitted for ISAB or ISRP review. The Columbia River Inter-Tribal Fish
Commission and the Yakama Nation, through their Accords, might submit a master plan for Pacific lamprey artificial production and stocking. The ISAB and ISRP will coordinate any requested reviews of lamprey documents or plans. Reviews might be requested in FY 2018.

C. White Sturgeon

White Sturgeon Hatchery Master Plan: Lower Columbia and Snake River Impoundments, Project 2008-455-00 – In March 2016, the ISRP completed a review of the Step-One master plan submittal (ISRP 2016-5). A Step-Two submittal is anticipated in FY 2018.


Several ISRP members will attend the Council’s White Sturgeon Workshop in Coeur d’Alene, Idaho, November 15-16, 2017. The meeting’s purpose is to share information, identify best practices, lessons-learned, and critical uncertainties among regional white sturgeon programs.

D. Resident Fish

Kootenai River Project Synthesis Report (1988-065-00, 1994-049-00, 2002-002-00, 2002-008-00, 2002-011-00) – This report will address a Council condition and ISRP qualification from the Resident Fish, Data Management, and Regional Coordination Category Review (ISRP 2012-6). The ISRP recommended that a synthesis report be produced that summarizes the results that have been obtained from the RM&E efforts associated with these projects. The ISRP specified that the synthesis should be a concise and comprehensive interpretation of aquatic community and system-scale responses that can be used to guide current and future restoration efforts on this system.

Duck Valley Reservation Reservoir Fish Stocking O&M and M&E, Three-Reservoir Management Plan, Project 1995-015-00 – This management plan will address a Council condition and ISRP qualification from the Resident Fish, Data Management, and Regional Coordination Category Review (ISRP 2012-6). A submittal and review is possible in FY 2018.

Kalispel Tribe Resident Fish Program, Project 199500100 – For ISRP and Council review, the project proponents are 1) developing a monitoring plan for reintroduction of westslope cutthroat trout to Goose Creek and 2) preparing a progress report on their bass production and fishery. They are transitioning their production focus from bass to triploid trout and westslope cutthroat trout. This transition could trigger a Three Step Review, but the Council will need to see a proposal to determine the review process. A submittal and review is anticipated in FY 2018.

Northern Pike Suppression Plan for Lake Roosevelt, Project 1994-043-00 – The Council asked the Spokane Tribe of Indians to work with the Confederated Tribes of the Colville Reservation and
Washington Department of Fish and Wildlife to develop a northern pike suppression plan for Lake Roosevelt and to submit the plan for ISRP and Council review in FY 2018.

E. Habitat Restoration Effectiveness Monitoring

Several years ago, in response to the Council’s RM&E and Artificial Production Category Review decision, the project proponents for the Columbia Habitat Monitoring Program (CHaMP) and the Integrated Status and Effectiveness Monitoring Program (ISEMP) developed a lessons learned report for review by the ISRP and the Council. The review of these lessons learned reports was intended to help ensure that all habitat status and trends monitoring is providing data necessary to support program priorities. In addition, Bonneville developed a plan titled Action Effectiveness Monitoring of Tributary Habitat Improvement (AEM) to cover project effectiveness monitoring. In January 2013, these three documents were submitted for ISRP review along with a framework document developed by Bonneville to show how the projects fit in with their long-term monitoring and evaluation plans. The ISRP completed a review of the reports in March 2013 (ISRP 2013-2). Based on the review findings, the Council recommended that the ISRP and Council regularly review the progress of the projects. The Council and Bonneville are currently considering policy issues with the projects, developing program-level strategies for habitat monitoring and evaluation, and defining future needs. Potential ISRP reviews are contingent on the results of that policy review and planning effort.

4. Reimbursable Projects Reviews

The Council and the ISRP have approached “reimbursable program” reviews sequentially over the past decade. The ISRP has reviewed the portions of the reimbursable program that are the most scientifically uncertain, expensive, and amenable to scientific review. These reviews have included evaluations of Lower Snake River Compensation Plan projects (see ISRP 2014-6) and multiple evaluations of the U.S. Army Corps of Engineers’ Columbia River Fish Mitigation Program projects, specifically those under the Anadromous Fish Evaluation Program (AFEP, see below). However, the ISRP has not reviewed many of the projects funded through the Corps’ Fish and Wildlife Operations and Maintenance Budget, primarily because these O&M projects include relatively few scientific elements. Although the Hatchery Science Review Group (HSRG) has reviewed the Bureau of Reclamation’s Leavenworth Hatchery, the ISRP has not. During the ISAB’s Upper Columbia spring Chinook review, the Board will consider the role of Leavenworth Hatchery in mitigation and recovery efforts. This should provide a good opportunity to explore a potential role for the ISRP in reviewing Leavenworth Hatchery.

Anadromous Fish Evaluation Program

In 2009, the Council, Corps, and ISRP agreed to sequence reviews of AFEP projects by topic. In 2010, The ISRP reviewed the AFEP projects for the estuary (ISRP 2010-6) and raised some scientific concerns that, as agreed by the Council and the Corps, would be addressed in the FY 2011 versions of the proposals. The ISRP reviews of those revised proposals were mostly favorable, and the ISRP offered some general comments on how to improve the review of other
AFEP projects in the future (see ISRP 2010-34). In 2011, the ISRP reviewed the Corps’ comprehensive RM&E Plan for the Willamette Basin projects and proposals for specific actions under the plan (ISRP 2011-26). The Willamette work is occurring as specified in the NMFS and USFWS Willamette Basin biological opinions. In December 2012, the ISRP completed a review of the Corps-funded lamprey passage projects (ISRP 2012-19). For FY 2018, the ISRP will continue its role reviewing synthesis reports, draft plans, and proposals for the Willamette Basin program. Specifically, the ISRP will likely review 1) a draft Middle Fork Willamette monitoring plan, 2) a draft plan regarding Willamette instream flow alternatives, and 3) synthesis reports and an updated monitoring plan for adult reintroduction and juvenile passage at the high-head dams on Willamette River tributaries. In addition, the ISRP might be asked to review AFEP adult fish passage, avian predation, and/or other studies that decisions on design, selection, and implementation would benefit from ISRP review. The ISRP intends to discuss potential reviews with Council and Corps staff.

5. Results Reviews

The ISRP fulfills its results review charge in three basic ways:

A. Proposal Reviews

A major element of the ISRP’s reviews of ongoing projects is an examination of each project’s reporting of past results consistent with the retrospective review charge. The proposal form specifically asks for a concise summary of biological results, a discussion of the adaptive management implications of those results, and notice that the ISRP will use the information submitted for its retrospective review. For example, in the Geographic Review and the Resident Fish, Data Management, and Regional Coordination Category Review, the ISRP included a specific section in each project comment field for a retrospective analysis. In addition to review comments on each project, the ISRP provides programmatic comments on the general sufficiency of results reporting and incorporation of project accomplishments into future planning.

B. ISRP Retrospective Reports

The ISRP has released four distinct “retrospective” reports. In 2005, the ISRP completed its first retrospective report, Independent Scientific Review Panel’s Retrospective Report 1997-2005 (ISRP 2005-14, August 2005). The report focused on programmatic issues and observations identified in ISRP reviews dating back to the ISRP’s first report in 1997. In 2006, the ISRP’s review of Fiscal Year 2007-09 proposals included an examination of the results reported by ongoing projects. The ISRP reported the results of that analysis in its ISRP 2006 Retrospective Report (ISRP 2007-1, March 2007). The ISRP’s Retrospective Report 2007: Adaptive Management in the Columbia River Basin (ISRP 2008-4, April 2008) focused on how projects are changing their objectives, strategies, and methods based on learning from the results of their actions. The ISRP accomplished this by looking at themes that emerged in previous ISRP retrospectives, examining a subset of projects that were reviewed
in Fiscal Year 2007, and investigating how proponents applied the results of their past projects to proposed future actions and monitoring. The ISRP’s Retrospective Report 2011 (ISRP 2011-25) expanded on the results review of projects evaluated in the RM&E and Artificial Production Category Review. The review focused on sets of projects in three major topical areas: 1) artificial production; 2) passage through mainstem dams, the river, and reservoirs; and 3) habitat restoration monitoring. The ISRP found that monitoring and evaluation has improved in all three major areas covered by this report. Nonetheless, the ISRP stated that lack of a comprehensive analysis of biological objective achievements for hatchery and habitat efforts impedes the understanding of program effectiveness.

C. ISRP Review of “Retrospective” or “Synthesis” Reports drafted by Project Proponents

The ISRP has reviewed a number of “retrospective” reports that were produced by proponents of long-term, ongoing projects. Some of these reports were requested by the ISRP in a specific project review; see the ISAB and ISRP Review of the CSS Ten-Year Retrospective Summary Report (ISAB/ISRP 2007-6, November 2007). The review of the Lower Snake River Compensation Plan programs for spring Chinook, steelhead, and fall Chinook was a comprehensive and effective look at program results (ISRP 2014-6). Other examples include the reviews of ocean, estuary, sturgeon, Idaho Supplementation Studies, and lamprey synthesis reports and ISRP follow-up reviews of the Select Area Fisheries Enhancement Program, the ODFW John Day fencing program, and the Grande Ronde model watershed habitat restoration effectiveness report.

The ISRP recognizes that results reviews need to be conducted in the context of other concurrent efforts that track results of the Fish and Wildlife Program. Specifically, the Council develops its own annual report to Congress and the four Basin state governors on the Program’s progress toward fish and wildlife mitigation and recovery based on high level indicators. The Action Agencies for the Federal Columbia River Power System produce comprehensive evaluation reports describing progress on meeting Biological Opinion requirements. The Bonneville Power Administration developed and uses Pisces and Taurus databases to track the progress of its funded projects. In the past, the Columbia Basin Fish and Wildlife Authority (CBFWA) issued an annual report of the status of the resource. These efforts and the ISRP’s retrospective review share a target of both reviewing the results that are currently reported and establishing a systematic and meaningful reporting of project results as a central feature of the Fish and Wildlife Program.

A major ISRP results review for 2015 and 2016 was the evaluation of RM&E projects’ annual reports for the Critical Uncertainties Review (ISAB/ISRP 2016-1), and in FY 2017 the ISRP evaluated the results of umbrella habitat restoration projects (ISRP 2017-2) and wildlife projects (ISRP 2017-7). For FY 2018, the ISRP intends to discuss with the Council topics for future ISRP retrospective reports, for example, the extent to which Program funded and guided actions have addressed Program goals and biologically based objectives.