Northwest **Power** and **Conservation** Council

January 6, 2015

DECISION MEMORANDUM

TO: Council members

FROM: Erik Merrill, ISRP and ISAB Coordinator
Jim Ruff, ISAB Ex Officio Member

SUBJECT: ISRP, PRG, and ISAB member appointments

PROPOSED ACTION: 1. Appoint Desiree Tullos and Wayne Hubert to the ISRP.

2. Appoint 19 scientists to the pool of potential ISRP Peer Review Group members - William Boggess, Daniel Bottom, Richard Carmichael, Patrick Connolly, Albert Giorgi, William Jaeger, Cynthia Jones, Lynn Kaeding, Matthew Mesa, Carrie Pomeroy, John Richardson, Kenny Rose, Clare Ryan, James Sanchirico, James Seeb, David Tallmon, Thomas Turner, Ellen Wohl, and Michael Young.

3. Advise the Council chair, as the Council's representative on the Independent Scientific Advisory Board's (ISAB) Administrative Oversight Panel, to support the appointment of Cynthia Jones, William Jaeger, Stan Gregory, and a population genetics expert to the ISAB.

SIGNIFICANCE: Appointing new ISRP and ISAB members and increasing the pool of PRG members will allow the groups to continue to conduct independent scientific reviews that improve implementation of Columbia River Basin fish and wildlife recovery and mitigation efforts, as specified in the Council's 2014 Fish and Wildlife Program and the 1996 Amendment to the NW Power Act.

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BUDGETARY/ECONOMIC IMPACTS

The ISRP and ISAB operate on annual budgets, independent of the Council's budget, funded by the Bonneville Power Administration through the Fish and Wildlife Program. Costs associated with services and travel of new ISRP and ISAB members will be covered under the groups' existing budgets. The ISRP's Fiscal Year 2015 budget is $500,000. The ISAB's budget is $550,000. No additional funds are requested.

BACKGROUND

The Appointment Process

The ISRP and ISAB appointments process follows three steps, of which the first two are complete for this ISRP appointment decision. First, in December 2013, the Council, NOAA Fisheries, and Columbia Basin Indian Tribes invited the region to nominate scientists to be considered for service on the ISAB and/or the ISRP. Second, the National Academy of Sciences evaluated the list of nominees based on their scientific credentials and recommended a pool of 23 candidates for potential ISRP and ISAB appointment (see the National Academy's October 28, 2014 memo[1]). These candidates augment an existing pool of about 60 highly qualified ISAB and ISRP nominees who were evaluated by the National Academy in 2011, 2008, and 2005. Third, from the list of recommended candidates, the ISAB Administrative Oversight Panel appoints ISAB members and the Council appoints ISRP members.

Member Qualifications

The ISAB and ISRP's governing documents call for membership to include expertise in anadromous and resident fish ecology, statistics, modeling, wildlife ecology, genetics, fisheries, fish passage/bioengineering, fish husbandry, marine ecology, geomorphology, and socio-economics. Pacific Northwest scientists with expertise in Columbia River anadromous fish and non-anadromous fish must be included. All of the scientists recommended by the National Academy of Sciences meet the criteria of membership to the ISAB and ISRP. Specifically, they have demonstrated high achievement in a relevant discipline; a strong record of scientific accomplishment documented by contribution to peer-reviewed literature or other evidence of creative scientific accomplishment; high standards of scientific integrity, independence, and objectivity; ability to forge creative solutions to complex problems; and interest in and ability to work effectively in an interdisciplinary setting. ISAB and ISRP members participate as independent scientists and are not selected to represent the views of any organization or interest group. In fact, the scientists' reputation of providing sound independent advice is an important factor considered in the screening process. In addition, all appointees must confirm their ability to commit sufficient time to effectively participate in review activities and to comply with the ISAB/ISRP conflict of interest standards for the duration of their appointment.

[1] The National Academy of Sciences' 2014 letter is available at http://www.nwcouncil.org/media/7148636/members2014.pdf

ANALYSIS

Appointment of Two ISRP Members

With the transition of Rich Alldredge and Bob Bilby off the ISRP, the ISRP loses members with expertise in statistics, riparian ecology, and fish population dynamics. Council staff considered the expertise lost and the expertise needed for likely reviews over the next three years, and we recommend the following scientists for immediate appointment to the ISRP for first terms through Fiscal Year 2018.

Desiree Tullos, Ph.D., PE, is an Associate Professor at Oregon State University, Biological and Ecological Engineering Department. She has expertise in ecohydraulics, river engineering, and habitat restoration. She has broad experience modeling and researching the ecosystem impacts of dam operations, flood risk management, and dam removal case studies in the Pacific Northwest, China, and other areas. She has also researched the effectiveness of stream engineering, in particular large wood structures, a technique widely used by Fish and Wildlife Program projects. She will improve ISRP reviews of habitat restoration, floodplain reconnection, and dam passage projects by providing engineering and hydrology expertise to augment the existing biological and fisheries expertise represented on the ISRP.

Wayne Hubert, Ph.D., is a fisheries consultant and Professor Emeritus at the University of Wyoming, Department of Zoology and Physiology. In 2010, he retired as Leader of the Wyoming Cooperative Fish and Wildlife Research Unit, where he worked since 1982. He served as President of the American Fisheries Society in 2010 and has a reputation as an effective leader and constructive mentor. His primary interests have been fish habitat and population management in the Rocky Mountains and Great Plains. His recent work focused on salmonids in large mountain watersheds and regulated rivers, but his body of work has covered a wide spectrum of freshwater fishes and also wildlife species. His broad expertise and reputation as a constructive mentor will be extremely valuable on the ISRP considering the scope of Fish and Wildlife Program projects and the focus on improving restoration and research efforts.

Pool of Potential ISRP Peer Review Group Members

The 1996 amendment to the Power Act provides for the ISRP to be assisted by Peer Review Groups. The Council has appointed a Peer Review Group pool of over 178 scientists, a subset of who are used on an ad hoc basis to provide specific expertise and augment the capabilities of the ISRP. While not members of the ISRP, Peer Review Group members are active and essential contributors to the review process. Over the past seventeen years, over 50 Peer Review Group members have participated in ISRP project reviews.

Council staff recommends that the 19 scientists[2] listed below (Table 2) be appointed to the ISRP's Peer Review Group. These scientists would bolster the ISRP's expertise and workforce and thus ability to participate in large-scale reviews. The scientists are from

[2] Several of these recommended scientists have current conflicts of interest and would only be eligible to serve after they no longer have financial ties to BPA funded projects or entities.

those recommended for the ISRP in the National Academy of Sciences' October 2014 memo regarding the evaluation of ISAB and ISRP nominees.

This large number of potential Peer Review Group members is needed because significant numbers of reviewers covering a wide range of expertise are often needed on short notice to participate in time-intensive reviews. In addition, some of these scientists, at times, propose or have ongoing BPA funded projects, which constitutes a conflict of interest disallowing their participation in reviews. Finally, enlisting potential future ISAB and ISRP members as peer review group members for discrete, temporary review roles allows the scientists to gauge their interest in these groups and the ISRP and Council to gauge the scientists' suitability for full ISRP or ISAB membership.

Appointment of Four ISAB Members

With the transition of Chris Wood, Rich Alldredge, and Dennis Scarnecchia off the ISAB, the ISAB loses members with expertise in the ecology and genetics of salmon, statistics, and large river fisheries ecology. In addition, Bob Naiman, an expert in stream ecology, will complete his final ISAB term in September 2015, and we recommend that his replacement be appointed now, but to begin ISAB service in October 2015. The ISAB Ex Officios and coordinator considered the expertise lost and the expertise needed for likely reviews over the next three years, and we recommend the following scientists for appointment to the ISAB for first terms through Fiscal Year 2018. These scientists will provide expertise in statistics and modeling, socio-economics, population genetics, and river ecology and restoration.

Cynthia Jones, Ph.D., is an Eminent Scholar and Professor of Ocean, Earth, and Atmospheric Sciences; Director of the Center for Quantitative Fisheries Ecology; and A.D. and Annye L. Morgan Professor of Sciences at Old Dominion University, Virginia. She has extensive experience with marine and estuarine fisheries including harvest surveys, modeling, and research. Although much of her work has been on the East Coast, she has served on several Pacific salmon panels for the National Research Council. Her expertise in quantitative fisheries ecology and modeling is needed on the ISAB for reviews of life-cycle models, fish passage studies, and research plans.

William Jaeger, Ph.D., is a Professor of Agriculture and Resource Economics at Oregon State University. His research includes issues related to water and land use, energy, and modeling of coupled human-natural systems. He is a current member of the Council's Independent Economic Analysis Board, on which he has been insightful and effective. The ISAB is a multi-disciplinary group, and Dr. Jaeger would provide socio-economic expertise which is called for but not currently represented on the ISAB. This expertise is especially important as the region moves forward with a landscape approach that includes physical, biological, and socio-economic considerations when developing habitat restoration efforts.

Stan Gregory, Ph.D., a Professor Emeritus of Fisheries at Oregon State University. His work has focused on stream ecology, human influences on the ecosystem, and restoration practices that are consistent with natural processes. He is an award-winning educator, and his ability to communicate scientific information to the public and decision makers will be valuable on the ISAB. He has served effectively as a peer review group

member in an early ISRP review. His work on the Willamette Basin Alternative Futures Analysis helped inform the Willamette subbasin planning effort that was exemplary for its consideration of alternative scenarios of human development and habitat restoration. He helped develop a publicly available framework for assessing ecological conditions in the Willamette River. His expertise and experience applies broadly to the Fish and Wildlife Program, tribal programs, and ESA recovery efforts. If appointed, Dr. Gregory would begin his ISAB service in October 2015 after Dr. Naiman's term expires.

The ISAB Ex Officios and coordinators are also currently considering several candidates who would provide population genetics expertise on the ISAB. We hope to have a recommended candidate by the Council's meeting.

ALTERNATIVES

The Council can request further consideration of alternative National Academy recommended candidates than those recommended in the memo for some or all of the open ISAB positions. Alternative candidates were identified during the appointment process and can be brought forward if deemed necessary.

TABLE 1. ISRP AND ISAB MEMBERS AND TERMS

ISRP Member	Affiliation	Expertise	Term
Rich Alldredge	Washington State University	Statistics	*Serve until replaced*
Robert Bilby	Weyerhaeuser	Riparian ecology and fish population dynamics	*Serve until replaced*
Greg Ruggerone	Natural Resource Consultants, Washington	Fisheries - ocean and freshwater salmon ecology	2015, 1st
David Heller	Aquatic Habitat Management and Restoration Consultant, formerly with U.S. Forest Service, Oregon	Aquatic habitat management, restoration, and monitoring	2015, 1st
Scott Lutz	University of Wisconsin	Wildlife	2015, 1st
Steve Schroder	Fisheries Consultant, formerly with Washington Department of Fish and Wildlife	Fisheries - artificial production, freshwater and estuarine salmon ecology	2015, 1st
Carl Schwarz	Simon Fraser University, Canada	Statistics and Actuarial Science	2015, 1st
Chris Wood	Formerly with Department of Fisheries and Oceans, Canada, BC	Fisheries - genetics and ecology of salmon	2015, 1st
Robert Naiman	University of Washington	River ecology	2015, 1st

Dennis Scarnecchia	University of Idaho	Fisheries - large river	2016, 2nd
Alec Maule	Formerly with U.S. Geological Survey	Fisheries - physiological ecology of salmonids (mainstem fish passage)	2016, 1st

ISAB Member	Affiliation	Expertise	Term
Chris Wood	Department of Fisheries and Oceans, Canada, BC	Fisheries - genetics and ecology of salmon	*Serve until replaced*
Rich Alldredge	Washington State University	Statistics	*Serve until replaced*
Dennis Scarnecchia	University of Idaho	Fisheries - large river	*Serve until replaced*
Robert Naiman	University of Washington (emeritus)	River ecology	2015, 2nd
Greg Ruggerone	Natural Resource Consultants, Washington	Fisheries - ocean and freshwater salmon ecology	2016, 2nd
Kurt Fausch	Colorado State University	Fisheries - population and stream ecology	2015, 1st
Kate Myers	University of Washington (emeritus)	Fisheries - ocean and salmon ecology	2015, 1st
Laurel Saito	University of Nevada Reno	Civil engineer - hydrology and ecosystem modeling	2015, 1st
Carl Schwarz	Simon Fraser University, Canada	Statistics and Actuarial Science	2016, 1st
Alec Maule	Formerly with U.S. Geological Survey	Fisheries - physiological ecology of salmonids (mainstem fish passage)	2016, 1st
Steve Schroder	Fisheries Consultant, formerly with Washington Department of Fish and Wildlife	Fisheries - artificial production, freshwater and estuarine salmon ecology	2016, 1st

TABLE 2. NINETEEN RECOMMENDED PEER REVIEW GROUP APPOINTEES

Name	Affiliation	Expertise
William Boggess	Oregon State University	Social sciences, resource economics
Daniel Bottom	NOAA/NMFS/Northwest Fisheries Science Center, Hatfield Marine Science Center	Fisheries, ocean and estuary
Richard Carmichael	Oregon Department of Fish and Wildlife	Fisheries, management, research, and recovery science
Patrick Connolly	U.S. Geological Survey, Columbia River Research Lab	Fisheries, ecology and habitat
Albert Giorgi	Consultant, BioAnalysts	Mainstem fish passage
William Jaeger	Oregon State University	Economics and policy
Cynthia Jones	Old Dominion University	Biometrics, fisheries and population dynamics
Lynn Kaeding	Formerly U.S. Fish and Wildlife Service, Bozeman, Montana	Fisheries, ecology and habitat (resident species)
Matthew Mesa	Formerly U.S. Geological Survey, Columbia River Research Lab	Fisheries, ecology and habitat (lamprey and bull trout)
Carrie Pomeroy	California Sea Grant, U.C. Santa Cruz Center for Ocean Health	Social scientist, fisheries and fishing communities
John Richardson	University of British Columbia	Community and population ecology
Kenny Rose	Louisiana State University	Biometrics and modeling
Clare Ryan	University of Washington	Resource policy
James Sanchirico	University of California - Davis	Economics and policy
James Seeb	University of Washington	Fisheries, genetics
David Tallmon	University of Alaska - Juneau	Population ecology, genetics
Thomas Turner	University of New Mexico	Genetics
Ellen Wohl	Colorado State University	Hydrology, river restoration
Michael Young	U.S. Forest Service, Rocky Mountain Research Station	Fisheries, genetics and ecology