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May 11, 2022

DECISION MEMORANDUM

TO: Council Members

FROM: Erik Merrill, Independent Science Manager, and Leslie Bach, Senior Program Manager and ISAB Ex Officio

SUBJECT: ISRP Term Renewal Decision and ISAB Appointments Discussion

PROPOSED ACTION: Council staff asks that the Council approve second terms for Richard Carmichael, Patrick Connolly, Kurt Fresh, Josh Korman, and Thomas Quinn to the Independent Scientific Review Panel (ISRP).

Staff will discuss with the Council the appointment of James Irvine, Yolanda Morbey, Ellen Wohl, and Michael Young to the Independent Scientific Advisory Board (ISAB) and second terms for Courtney Carothers, John Epifanio, Dana Infante, and Kenneth Rose.

This discussion should assist Chair Guy Norman in his capacity as the Council's representative on the ISAB's Administrative Oversight Panel, which will make the final ISAB appointment decision. The other Oversight Panel representatives are Aja DeCoteau (Executive Director, Columbia River Inter-Tribal Fish Commission) and Kevin Werner (Science Director, NOAA-Fisheries Northwest Fisheries Science Center). A separate decision memo will be sent to the Oversight Panel for their consideration of the ISAB appointments and term renewals.

SIGNIFICANCE:

The ISRP provides recommendations to the Council on the scientific soundness and benefits to fish and wildlife of projects funded by the Bonneville Power Administration. The ISAB provides the Council, NOAA Fisheries, Columbia River Indian Tribes, and the region with independent reviews of critical scientific issues facing Columbia River Basin fish and wildlife mitigation and recovery efforts. These ISRP and ISAB member term renewals and appointments should maintain the groups' expertise and ability to effectively review the science pertaining to fish and wildlife projects and topics likely to arise in the next few years such as habitat restoration, salmon reintroduction assessments, and life cycle models.

BUDGETARY/ECONOMIC IMPACTS

The ISRP and ISAB operate on an annual budget, independent of the Council's budget, funded by the Bonneville Power Administration through the Fish and Wildlife Program. No additional funds are requested.

BACKGROUND***The Appointment Process***

The ISRP and ISAB each have 11 members who are eligible to serve two terms of normally three years per term. Term limits and new appointments are staggered to ensure continuity of membership and regular infusion of fresh perspectives.

The recommended ISAB and ISRP candidates were selected from a list of scientists evaluated and approved by the National Academies of Science, Engineering, and Medicine for their scientific qualifications (NASEM [2019](#) and [2014](#) memos). From the list of recommended candidates, the ISAB Administrative Oversight Panel appoints ISAB members and the Council appoints ISRP members.

All qualified ISAB and ISRP members are appointed without regard to race, color, national origin, religion, gender, gender identify (including gender expression), sexual orientation, marital status, age, disability, genetic information, or military or veteran status.

Membership Recommendations

The ISAB and ISRP are multi-disciplinary groups with members providing a broad array of scientific expertise (see the tables below). In developing these recommendations for appointment, we considered the expertise lost, the expertise of continuing members, and the expertise needed for anticipated future assignments. In addition, we sought to

balance the groups with scientists who spent their careers in the Pacific Northwest and offer institutional and local knowledge, with those whose work has been primarily outside the Columbia River Basin and can provide a fresh perspective.

Each of the recommended scientists for term renewal or appointment was screened for conflicts of interest and potential bias. Several of the scientists participate in research grants that are conducted and funded outside the Columbia River Basin, including federal agency grants from NOAA Fisheries, U.S. Fish and Wildlife Service, and U.S. Geological Survey. Because their research is conducted and funded outside the Basin and is not likely to be the subject of ISAB and ISRP reviews, we believe these grant relationships would not interfere with the scientists' ability to impartially conduct reviews and would not jeopardize the ISAB or ISRP's independence. Additionally, some of the scientists worked for Columbia River Basin fish and wildlife agencies or research institutions during their careers. Although they are now retired and do not have financial ties to those agencies, their review roles on agency projects have been and will continue to be managed to avoid the appearance of bias and ensure independent reviews.

ISRP Renewal Recommendation

The five ISRP members recommended for term renewals:

- [Richard Carmichael](#), M.S., is a Consulting Fisheries Scientist, working out of La Grande, Oregon. In 2015, he retired from the Oregon Department of Fish and Wildlife, where he served as the Program Director for Northeast-Central Oregon Fish Research and Monitoring. His work focused on directing a complex research and monitoring program to develop and evaluate strategies for protecting and restoring Endangered Species Act-listed and non-listed anadromous fish populations and fisheries.
- [Patrick Connolly](#), Ph.D., is a retired, emeritus Lead Research Fish Biologist at the U.S. Geological Survey's Columbia River Research Laboratory in Cook, Washington. His expertise includes food web dynamics, non-native predator research and management, dam passage approaches, response of fish to restoration efforts, and response of fish life histories to climate change. He has a conflict of interest related to his spouse's employment that is managed when making assignments to avoid the appearance of bias or conflict of interest. His spouse works for the U.S. Fish and Wildlife Service's Fish Health Section, Portland, Oregon office. She does fish health work for several Columbia Basin hatcheries that are Mitchell Act rather than BPA funded. However, her employer, the USFWS, receives BPA funding for several projects and is the lead agency in the Basin on lamprey, white sturgeon, bull trout, and other focal species. To address this conflict, Connolly does not participate in reviews of USFWS projects or other projects that might be related to his spouse's work.
- [Kurt Fresh](#), M.S., retired in 2017 from his role as Program Manager for the Estuary and Ocean Ecology Program at the Northwest Fisheries Science Center, NOAA Fisheries. He directed research activities involving salmon and their

ecosystems, focusing on the science to support salmon conservation and management, especially recovery of endangered and threatened salmon populations along the West Coast of the United States.

- [Josh Korman](#), Ph.D., is President of Ecometric Research and an Adjunct Professor, Institute of Oceans and Fisheries, University of British Columbia. He is a fisheries scientist, quantitative ecologist, and modeler with extensive experience studying the effects of dams and harvest on fish populations.
- [Thomas Quinn](#), Ph.D., is a professor at the School of Aquatic and Fishery Sciences at the University of Washington. His expertise and research interests include salmon and trout ecology, predator-prey interactions, and the selective effects of fisheries and artificial propagation, among others. He has a conflict of interest related to his spouse's employment that is managed when making assignments. His spouse works for the Washington Department of Fish and Wildlife (WDFW) on ecotoxicology issues, primarily in the Puget Sound. Her work is not tied to any BPA-funded project and is not in the Columbia River Basin. To avoid the appearance of conflicts or bias, Quinn is not assigned to review WDFW projects, and if any review might potentially overlap with his spouse's work, we would tailor his review role to avoid the appearance of bias.

ISAB Appointments and Term Renewal Discussion

As noted above, Staff will also discuss four ISAB appointments and four term renewals with the Council to inform Chair Norman, in his capacity as the Council's representative on the Independent Scientific Advisory Board's (ISAB) Administrative Oversight Panel.

The four scientists recommended for ISAB appointment:

- [James Irvine](#), Ph.D., is an Emeritus Research Scientist, Fisheries and Oceans, Canada, Pacific Biological Station, Nanaimo, British Columbia. His work has focused on salmon stock assessment and fisheries, covering freshwater and marine environments. His expertise will broadly apply across ISAB assignments and will be especially applicable to reviews of life cycle modeling and factors affecting salmon survival.
- [Yolanda Morbey](#), Ph.D., is an Associate Professor, Department of Biology, Western University, Ontario, Canada. She teaches in the areas of ecology, evolution, and biostatistics. Her experience and expertise have focused on avian and salmon migratory behavior and biology in the Pacific Northwest and the Great Lakes ecoregions. This combination of topical and geographic experience should offer fresh perspectives in ISAB reviews concerning salmon ecology as well as wildlife and predation research and management.
- [Ellen Wohl](#), Ph.D., is a Professor of Geology and University Distinguished Professor, Department of Geosciences, Colorado State University, Fort Collins.

She is a fluvial geomorphologist with extensive experience and expertise regarding physical-ecological interactions in river ecosystems. She has published many articles and books on river processes and restoration, reaching scientific and general audiences. Her expertise will translate well to conducting and communicating ISAB reviews, especially of habitat assessment and restoration.

- [Michael Young](#), Ph.D., is a Research Fisheries Biologist, Rocky Mountain Research Station, U.S. Forest Service, Missoula, Montana (retiring in December 2022). His current focus is on broad-scale application of genetic tools, including eDNA, to answer ecological questions about native and nonnative aquatic species in western North America. He also has extensive experience working on trout ecology and conservation. His genetic expertise fills an expertise need on the ISAB, and his fish ecology expertise will be widely applicable across ISAB reviews.

The four ISAB members recommended for term renewals:

- [Courtney Carothers](#), Ph.D., is Professor, Department of Fisheries, College of Fisheries and Ocean Sciences, University of Alaska Fairbanks. She is an environmental anthropologist with broad expertise in human-environment relationships, particularly in marine and fisheries systems. Her work includes partnering with indigenous communities in the Arctic to study social-ecological change and traditional ways of life.
- [John Epifanio](#), Ph.D., is a former Principal Scientist with the Illinois Natural History Survey and as a Research Professor with the University of Illinois. He currently is a consulting scientist based in Portland, Oregon. His expertise spans fishery resource management, conservation genetics, and aquatic and terrestrial resource policy and planning.
- [Dana Infante](#), Ph.D., is Associate Professor and Associate Chair of Research in the Department of Fisheries and Wildlife, Michigan State University. She has extensive expertise in river ecology and management, landscape ecology, and environmental assessment.
- [Kenneth Rose](#), Ph.D., is the France-Merrick Professor in Sustainable Ecosystem Restoration at Horn Point Laboratory of the University of Maryland Center for Environmental Science. His work has focused on modeling of fish population and food web dynamics in estuaries, lakes, reservoirs, and oceans.

Table of Current ISRP Members
(Shaded shows members recommended for term renewal)

ISRP Member	Affiliation	Expertise	Term
Stan Gregory	Oregon State University, emeritus	Fisheries, ecology, and habitat	2023, 2 nd
Kurt Fausch	Colorado State University, emeritus	Fisheries - population and stream ecology	2024, 2 nd
Thomas Quinn	University of Washington	Fisheries - salmonid ecology, behavior, and artificial propagation	2022, 1 st
Richard Carmichael	Consultant, formerly with Oregon Department of Fish and Wildlife	Fisheries, management, research, and recovery science	2022, 1 st
Kurt Fresh	Consultant, formerly with National Marine Fisheries Service	Fisheries, ocean and salmonid ecology	2022, 1 st
Josh Korman	Ecometric Research, Consultant, Vancouver, Canada	Biometrics and modeling	2022, 1 st
Patrick Connolly	Consultant, formerly with United States Geological Survey, Washington	Fisheries, ecology, and habitat	2022, 1 st
Alisa Wade	United States Geological Survey's North Central Climate Adaptation Science Center, Montana	Conservation science, planning, and spatial modeling	2023, 1 st
Dana Infante	Michigan State University	Hydrology and ecosystem modeling	2023, 1 st
Kenny Rose	University of Maryland	Biometrics and modeling	2023, 1 st
Thomas Turner	University of New Mexico	Fisheries - genetics	2024, 1 st

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ISAB Member	Affiliation	Expertise	Term
Stan Gregory	Oregon State University, emeritus	Fisheries, ecology, and habitat	2023, 2 nd
Thomas Quinn	University of Washington	Fisheries - salmonid ecology, behavior, and artificial propagation	2024, 2 nd
Courtney Carothers	University of Alaska, Fairbanks	Social sciences, environmental anthropologist, marine and fisheries systems	2022, 1 st
John Epifanio	Consultant, formerly Illinois Natural History Survey	Fisheries, genetics and hatcheries	2022, 1 st
Dana Infante	Michigan State University	Hydrology and ecosystem modeling	2022, 1 st
Kenny Rose	University of Maryland	Biometrics and modeling	2022, 1 st
Desiree Tullos	Oregon State University	Ecohydraulics, river engineering, and restoration	2024, 1 st
Members with terms completed			
William Jaeger	Oregon State University	Economics and policy	Complete
Cynthia Jones	Old Dominion University	Biometrics, fisheries and population dynamics	Complete
Thomas Turner	University of New Mexico	Fisheries - genetics	Complete
Thomas Wainwright	Oregon State University, Affiliate Faculty; National Marine Fisheries Service, retired	Fisheries, ocean and salmonid ecology	Complete