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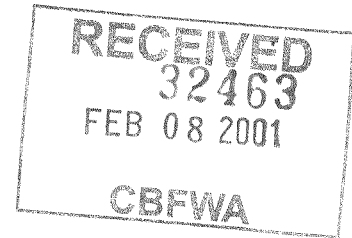
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February 7, 2001
REVISED



MEMORANDUM

TO: Council Members
FROM: Gustavo Bisbal *GBS*
SUBJECT: Final recommendation on *innovative projects* - Fiscal Year 2001

ACTION

The Council is expected to reach a final funding recommendation for innovative project proposals submitted for consideration in Fiscal Year 2001.

BACKGROUND

In Fiscal Year 2001, the Council and the Bonneville Power Administration earmarked a total \$2 million from the fish and wildlife budget to fund "innovative" projects. The "innovative project" funding category was designed to extend an open invitation to a broad array of sponsors from within and outside the basin to submit proposals to explore new methods and technologies for fish and wildlife recovery in the Columbia River basin. In particular, the Council expressed an interest in projects exploring the effect of nutrient supplementation and those testing experimental selective fishing gear¹.

The following is a chronology of events under the FY 2001 innovative project funding category:

September 1, 2000:	Launching of solicitation for innovative proposals.
November 1, 2000:	Deadline for submittal of proposals. Sixty-six proposals were submitted.
November 28, 2000:	Update and presentation to the Fish and Wildlife Committee.
December 15, 2000:	Report and recommendations by the Independent Scientific Review Panel on the scientific merit, "innovative" contribution, and potential benefit of each proposal to fish and wildlife.
December 15, 2000:	Public comment period initiated.
January 16, 2001:	Update and presentation to the Fish and Wildlife Committee.
January 17, 2001:	Public comment period closed.

¹ The solicitation on the World Wide Web only referred to nutrient supplementation and not to experimental selective fishing gear. This discrepancy between the printed and electronic solicitation statements is reflective of last-minute changes requested by Bonneville after the posting to the Web.

- January 17, 2001: Report and recommendations by the Columbia Basin Fish and Wildlife Authority on the potential application of each proposal to management needs.
- February 6, 2001: Discussion and recommendation by the Fish and Wildlife Committee.
- February 7, 2001: Council decision and recommendations to Bonneville.

All documents, announcements, reports, and proposals submitted under the innovative project funding category can be accessed at www.cbfgwa.org/2001/innovative.

ANALYSIS

The report presented by the Independent Scientific Review Panel (ISRP) included a proposed funding list prioritized according to the technical adequacy of each proposal. The panel indicated that the top twenty proposals in its proposed ranking offer innovative and scientifically sound approaches that will benefit fish and wildlife, and are worthy of funding. The panel divided the proposals into four categories: *A*, *B*, and *C* reflected a decreasing level of innovation, scientific soundness, and likelihood of success, and *not innovative* (proposals that did not meet the innovative definition).

The Basin Authority also assigned projects to one of four categories: *Urgent*, *High priority*, and *Recommended action* reflected a decreasing management priority, and *do not fund* in the cases where proposals did not meet the Council's or the Authority's criteria for the innovative project category.

Table 1 presents the staff funding recommendation for consideration and approval by the Council. The starting point for this list considers the prioritized ranking of proposals recommended by the ISRP. Departures from the ISRP's ranking, and the evaluation and resolution of specific issues contemplates information presented in the original proposals, the recommendations provided by the ISRP and the Basin Authority, public comment and additional information collected from specific sponsors. There are two items on Table 1 that require special consideration:

1. **Proposal 22063 (ISRP #3)**. This proposal was also submitted for funding in the Klickitat subbasin (Gorge province) as proposal #21004. While its innovative version is proposed to last only one year at a cost of \$319,542, the Klickitat version is proposed for 3 years at a total cost of \$969,542. The proposal outlines a study to address passage difficulties experienced during adult migration under different flow regimes. This work will occur at Lyle and Castille Falls, on the Klickitat River, where local managers are involved in adult collection and repairs to flood-caused damages. The ISRP strongly supported both versions of this proposal and indicated its preference to fund this project through the Gorge province. The Basin Authority, on the other hand, urged passage improvement projects in the Klickitat River not wait for results of such a study.

Council staff supports the scaled-down version of this proposal (shorter, less expensive) because of the innovative qualities of the proposal and its promise to provide information on flow specific passage conditions that result in increased swimming activity in the Klickitat. This shorter version should not delay or interfere with the progress of fishway improvements planned at Lyle and Castille Falls. Funding under the Gorge province would provide an incentive for the project sponsor and local managers to coordinate their efforts and work cooperatively.

2. **Proposal 22047 (ISRP #8).** This proposal outlines a study to compare different methods of nutrient supplementation: stocking salmon carcasses, inorganic nutrients, and a carcass analog. While this study is well articulated and statistically robust, the development and testing of the carcass analog is considered under a separate study proposal (Proposal 22002, ISRP #4). In addition, the shortcomings of carcass addition and inorganic fertilization have been well documented in the literature and recognized by the sponsors of proposal 22002.

Council staff concurs with the observation by the ISRP that indicates that the implementation of proposal #22047 should take place after the completion of proposal #22002 which develops and tests the carcass analogs that #22047 proposes to use.

Table 2 includes a list of remainder proposals that were ranked within the top twenty proposals according to the ISRP. These proposals are unlikely to be funded if the staff recommendation to fund those in Table 1 is accepted, and the \$2 million cap is enforced.

When the solicitation for innovative proposals was released in September 2000, the Council expressed an interest in projects demonstrating the effects of nutrient supplementation. A total of 11 proposals were submitted to address this specific area. Table 3 provides a brief description of the nutrient supplementation proposals included in the current staff funding recommendation. The printed solicitation (see footnote 1) also invited proposals to test experimental selective fishing gear. A total of three proposals were received on this subject, but did not receive favorable reviews by the ISRP (Table 4).

STAFF RECOMMENDATION

Staff recommends that the Council approve and recommend funding for 9 innovative proposals in Fiscal Year 2001, as indicated in Table 1. Their combined total budget is **\$1,994,109**.

FUTURE ISSUES

The following issues reflect observations made by the ISRP, the Basin Authority and Council staff on suggestions and policy determinations affecting the structure of future innovative project cycles. While **a Council decision on these future issues is not necessary at this time**, staff is anticipating a discussion and resolution at a future Council meeting in preparation for the launching of the innovative project solicitation for Fiscal Year 2002. Such solicitation could tentatively take place around October-November 2001.

1. Redefine scope for innovative projects

Scale: The ISRP noted that new ideas and experimental methods are often best tested as pilot projects before stepping up to full-scale implementation. Implementation of full-scale projects may risk the financial resources of the program, and also harm the fish and wildlife resources the program is mandated to protect and enhance.

Project budgets: The ISRP indicated that a budget cap of \$400,000 may encourage the submission of larger-scale proposals. The panel believes that the Fish and Wildlife Program as a whole will be better served by funding a larger number of pilot-scale projects of moderate budget than by supporting fewer large budget projects. They suggested that future solicitations cap budgets of innovative projects at \$250,000 and recommend a range of \$50,000 - \$150,000.

Duration: The ISRP indicated that, in general, innovative projects should be able to test concepts and methods in 12-18 months time, leaving the longer-term implementation phase for funding under the Provincial Review Process.

2. **Innovative program budget:** The ISRP recommended that the annual budget for the innovative proposal solicitation be increased. Currently, the Innovative Funding Category is now allocated 1.4% of the Fish and Wildlife Program's annual \$127 million budget.
3. **Targeted requests for proposals (RFPs):** The ISRP suggested that solicitations for specific critical uncertainties should be developed as targeted RFPs rather than addressed through the innovative process and, therefore, define a separate budget category. For example, the inclusion of "nutrient supplementation" as a targeted research area in the FY2001 innovative proposal solicitation confused the review process because strong nutrient supplementation proposals did not necessarily have to be innovative.
4. **Private developmental research:** The ISRP recognized that some innovative proposals are based on tests of developmental technologies that would, if successful, become patented products held by private companies. A question remains on the appropriateness of using public funds to develop private technologies. Joint ventures between private companies and the Fish and Wildlife Program may be a possible funding mechanism for these efforts.
5. **Out-of-basin research:** The ISRP noticed that some proposals describe work that would take place outside the Basin, but that is nevertheless relevant to Basin needs and problems. In some cases, outside-Basin settings provide a better or more cost-effective field site for testing new techniques and ideas than within-basin locations. Under these conditions, and where research results are directly translatable to Basin problems, it may be fully appropriate to fund research projects in outside-Basin locations.
6. **Public comment:** Members of the public and proposal sponsors an extension of the public comment period in future innovative project cycles, to allow for a response to the review of proposals by managers of the Basin Authority.

TABLE 1. REVISED Staff funding recommendation for innovative projects in Fiscal Year 2001.

ID	Title	Sponsor	Sponsor Request	ISRP Rank	CBFWA Rank	Staff/FWC Recomm.	Staff/Fish and Wildlife Committee comments
22001	A Feasibility Study for Pacific Ocean Salmon Tracking (POST)	Kintama Research Corporation	\$228,600	1. A	Recommended action	\$228,600	
22013	Genetic sex of chinook salmon in the Columbia River Basin	University of Idaho	\$99,736	2. A	Urgent	\$99,736	
22063	Determination of difficult passage areas, migration patterns and energetic use of upriver migrating salmon and steelhead	Pacific Northwest National Laboratory	\$319,542	3. A <i>(Prefer to fund through Gorge Province)</i>	Recommended action	\$0	Fund through Gorge Province for 1 year only. Request close coordination and planning between sponsor and local managers. Require strict schedule for products to fit local plans for current and future activities.
22002	Influences of stocking salmon carcass analogs on salmonids in Columbia River tributaries	WDFW, Bio-Oregon, Shoshone-Bannock Tribe, NMFS, Yakama Nation, Weyerhaeuser Co.	\$399,829	4. A	High priority	\$399,829	Funding should be forfeited if Clean Water Act permits are not secured within 6 months of Council decision. (2/8/01: Sponsor indicated preliminary OK from WA and ID water quality agencies)
22022	Using Induced Turbulence to Assist Downstream-Migrating Juvenile Salmonids	Washington State University	\$219,923	5. A	Do Not Fund	\$219,923	Complimentary and not duplicative of current USGS study of turbulent flow jet idea at Cowlitz Dam as part of Corps' surface bypass collection program.
22050	Habitat Diversity in Alluvial Rivers	Confederated Tribes of the Umatilla Indian Reservation	\$319,860	6. A	High priority	\$319,860	
22033	Evaluate new methodologies for monitoring Pacific salmon and steelhead: methods for evaluating the effectiveness of restoration and recovery programs	U.S. Fish & Wildlife Service	\$353,376	7. A <i>(Fund only at a pilot-scale level to evaluate new tags)</i>	High priority	\$197,155	Sponsor revised original proposal. Budget for pilot-scale effort is 56% of original. ISRP agreed with the revised version. 2/6/01. Establish placeholder until sponsor clarifies, together with NMFS and BPA, if larger tags can be applied to chinook, and if they can be read by current detection devices at dams. Forfeit funding if issue not resolved within 90 days after Council decision.
22047	Salmonid response to fertilization: an experimental evaluation of alternative methods of fertilization	NMFS/ Northwest Fisheries Science Center	\$400,000	8. A <i>(Could be reduced in scale and budget)</i>	High priority	\$0	ISRP recognizes the sequential dependency of this research proposal to the innovative development and testing of carcass analogs proposed in #22002 above.
22042	Evaluate the effects of nutrient supplementation on benthic periphyton, macroinvertebrates, and juvenile sturgeon in the Kootenai River	Kootenai Tribe of Idaho	\$170,635	9. A	High priority	\$170,635	
22057	Waterbody and Aquatic Habitat Characterization Utilizing High Resolution Satellite Imagery and Aerial Imagery	Teasdale Environmental Associates	\$126,371	10. A	Recommended action	\$126,371	
22010	Echo Meadow Project - Winter Artificial Recharge to Cool Rivers	IRZ Consulting	\$660,714	18. B	Do Not Fund	\$232,000	Sponsor broke down lumped budget into annual costs. Fund for one year only. After that, sponsor should secure funds through provincial review cycle.
		TOTAL	\$3,298,586			\$1,994,109	

TABLE 2. REVISED List of remainder proposals that were ranked within the top twenty proposals according to the ISRP (Proposals in this table are unlikely to be funded if the staff recommendation to fund those in Table 1 is accepted, and the \$2 million cap is enforced).

ID	Title	Sponsor	Sponsor Request	ISRP Rank	CBFWA Rank
22055	Develop a Nutrient/Food-Web Management Tool for Watershed-River Systems	Battelle Memorial Institute	\$329,000	11. A	Recommended action
22064	Reintroduction success of steelhead from captive propagation and release strategies	NMFS, Resource Enhancement and Utilization Technologies Division	\$262,350	12. A	High priority
22019	Use a Multi-Watershed Approach to Increase the Rate of Learning from Columbia Basin Watershed Restoration Projects	ESSA Technologies Ltd.	\$295,036	13. B	Do Not Fund
22060	Assess Feasibility Of Enhancing White Sturgeon Spawning Substrate Habitat, Kootenai R., Idaho	USGS/ Kootenai Tribe of Idaho	\$300,000	14. B	High priority
22056	Development of Salmon DNA Finger Printing Microarrays	Battelle, Pacific Northwest Division	\$400,000	15. B	Recommended action
22043	Enhancing instream flow by adopting best agricultural land management practices	Washington State University	\$135,305	16. B	Do Not Fund
22037	Locate chum and fall chinook salmon and redds in deep and turbid water using an acoustic camera	USGS/BRD	\$164,334	17. B	High priority
22010	Echo Meadow Project - Winter Artificial Recharge to Cool Rivers	IRZ Consulting	\$660,714	18. B	Do Not Fund
22005	An experimental evaluation of nutrient supplementation on juvenile salmonid fish abundance in nutrient-limited streams	Department of Biological Sciences, Idaho State University	\$398,246	19. B	Recommended action
22038	Design and assessment of artificial spawning habitat for kokanee in Lake Pend Oreille, Idaho	University of Idaho	\$286,809	20. B	High priority
		TOTAL	\$3,231,794		

TABLE 3. REVISED Nutrient supplementation proposals included in the current staff funding recommendation for innovative projects in Fiscal Year 2001.

ID	Title	Sponsor	Sponsor Request	ISRP Rank	CBFWA Rank	Staff Recomm.	Brief description
22002	Influences of stocking salmon carcass analogs on salmonids in Columbia River tributaries	WDFW, Bio-Oregon, Shoshone-Bannock Tribe, NMFS, Yakama Nation, Weyerhaeuser Co.	\$399,829	4. A	High priority	\$399,829	Restore salmonid populations by increasing food available to salmonids. The efficacy of using salmon carcass analogs to benefit salmonid populations will be tested in three sub-basins of the Columbia River.
22042	Evaluate the effects of nutrient supplementation on benthic periphyton, macroinvertebrates, and juvenile sturgeon in the Kootenai River	Kootenai Tribe of Idaho	\$170,635	9. A	High priority	\$170,635	Analyze the effects of nitrogen and phosphorous additions on primary, secondary and tertiary productivity in a mesocosm to collect baseline data that will aid in determining if a large-scale fertilization effort would benefit the Kootenai River ecosystem.
		TOTAL	\$570,464			\$570,464	

TABLE 4. Experimental selective fishing gear proposals submitted for funding in Fiscal Year 2001.

ID	Title	Sponsor	Sponsor Request	ISRP Rank	CBFWA Rank
22044	Develop commercial selective live release fisheries for spring chinook on the Columbia River	Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife	\$356,794	C	Recommended action
22065	Design & Implement a System-wide Fish, Wildlife & Habitat Conservation Enforcement Web-Based Data Center	Steven Vigg & Company	\$41,112	C	Do Not Fund
22066	Live Capture Harvest	Steven Vigg & Company	\$32,542	Not Innovative	Do Not Fund
		TOTAL	\$430,448		

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