

Tom Karier
Chair
Washington

Frank L. Cassidy Jr.
"Larry"
Washington

Jim Kempton
Idaho

W. Bill Booth
Idaho



Joan M. Dukes
Vice-Chair
Oregon

Melinda S. Eden
Oregon

Bruce A. Measure
Montana

Rhonda Whiting
Montana

May 31, 2007

MEMORANDUM

TO: Fish and Wildlife Committee

FROM: Patty O'Toole, Program Implementation Manager

SUBJECT: Update on innovative project proposals

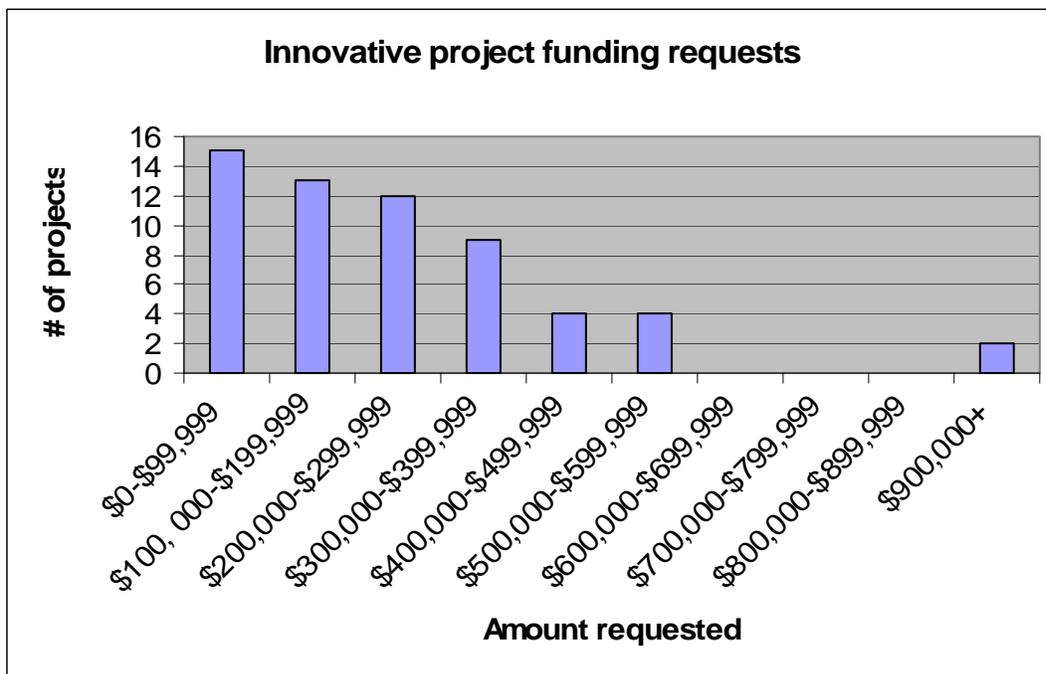
The purpose of this agenda item is to provide a brief update to the Fish and Wildlife Committee on the Innovative Project solicitation and review process. The proposal submission period ended on May 18th. A brief summary of the submissions and where we are in the process is provided below.

As a reminder, the key elements of the solicitation are:

- An Innovative project should rely primarily on a method or technology that has not been used before in Columbia River Basin fish and wildlife projects or, if used before in other projects, has not been used in the proposed application.
- Project sponsors should propose innovative on-the-ground "demonstration" or "pilot" projects which, if successful, will contribute to direct improvements in the survival or productivity of Columbia River fish or wildlife species.
- Investigations of basic biological and physical phenomenon are not targeted with this solicitation.
- The Council, in its project funding recommendations to Bonneville for Fiscal Years 2007-09, recommended that Bonneville reserve a portion of its available funds for an innovative project solicitation. The purpose of seeking out innovative projects is to improve knowledge, encourage creative thinking, and provide an opportunity for sponsors to submit proposals that focus on testing or demonstrating new methods and technologies designed to directly benefit fish and wildlife in the Columbia River Basin.
- Bonneville has agreed to make available up to \$2,000,000 total to fund innovative projects during these fiscal years.
- Sponsors should demonstrate that it is feasible to complete the proposed project within 18 months, including one year to implement the work and six months to complete reports and other deliverables as appropriate.

Fifty-nine project proposals were submitted. This compares to 66 proposals in FY 2001 and 37 in FY 2001. The total amount requested for the solicitation period was \$16,219,332, including \$11,319,377 for FY 2008 and \$4,899,955 for FY 2009. Bonneville has made \$2,000,000 available for this funding effort, so the amount of funding requested for these proposals far exceeds funding availability.

The following chart shows proposed project costs. In past solicitations, a per-project budget cap was part of the project solicitation. The budget cap varied from \$200,000-\$400,000. The ISRP suggested that the Fish and Wildlife Program would be better served by funding a larger number of pilot-scale projects of moderate budget with 12-18 month testing periods than by supporting fewer large budget, long-term projects. The ISRP asserted that a major purpose of the innovative funding category is the “proof of concept,” and that the innovative projects selected should be pilot-scale, operate on modest to moderate budgets, and be of relatively short duration. The Council did not place a per project budget cap into the current solicitation but did encourage “pilot projects” rather than full-scale projects. The majority of projects submitted contained total budgets of less than \$400,000.



The next step in the process is the ISRP’s proposal review, which is underway with a final report expected by June 26, 2007. Following the ISRP review, a public comment period occurs until July 24, then the Fish and Wildlife Committee will consider recommendations at their August meeting, and the Council will make funding recommendations at their September meeting.

Attached is a list of the proposals submitted under the innovative solicitation.

FY07-09 innovative proposals

[Click here to view full proposals online](#)

PropID	Title	Sponsor	Province	Subbasin	FY08	FY09	Total project \$
200750000	A New Aging Technique For Lake Trout and Northern Pikeminnow Using Allometric Relationships Between Fish Size and Otolith Mass	University of Montana	Mountain Columbia	Flathead	\$86,644	\$28,596	\$115,240
200750100	Adapting tree-ring techniques to reconstruct stream environmental histories from the growth increments of long-lived freshwater mussels	Oregon State University	Mainstem/Systemwide		\$51,405	\$22,097	\$73,502
200750200	Application of Innovative Acoustic Telemetry Technology to Underpin Statistically-Valid Survival Estimates for Chinook Salmon in the Nearshore Ocean Off the Mouth of the Columbia River	Pacific Northwest National Laboratory	Mainstem/Systemwide	Systemwide	\$447,928	\$84,752	\$532,680
200750300	Assessment of Functional Biological Differences Between Natural and Hatchery-Raised Redfish Lake Sockeye Salmon	University of Idaho - Aquaculture Research Institute	Mountain Snake	Salmon	\$199,751		\$199,751
200750400	Automated Scale Image Analysis (ASIA)	Biopar, LLC	Blue Mountain	Grande Ronde	\$153,250	\$45,000	\$198,250
200750500	Catching Predator fish with commercial traps	Gulf Vessel Management Inc.	Mainstem/Systemwide		\$200,000	\$200,000	\$400,000
200750600	Chiwawa River Adult Spring Chinook Otolith Study	Wild Fish Conservancy (formerly Washington Trout)	Columbia Cascade	Wenatchee	\$11,592	\$36,321	\$47,913
200750700	Crumble-Crete Habitat Revegetation and Stability Blocks - Development of degradable bank protection/reeg block to provide temporary stability during recovery of natural bank-stabilizing vegetation.	WDFW and CRITFC	Columbia Plateau	Yakima	\$25,498	\$2,240	\$27,738
200750800	Designing Pre- and Post-Fire Restoration Strategies For Recovery of Salmonid Habitats in a Period of Climate Change and Increased Forest Fire Disturbance	Earth Systems Institute	Columbia Cascade	Methow	\$38,500	\$49,800	\$88,300
200750900	Develop structure for implementing and maintaining a Master Sample of rivers and streams in the Columbia Basin, and develop statistical tools for analyzing Master Sample applications.	Oregon State University			\$188,777	\$198,029	\$386,806
200751000	Development of a Low-cost Dual-Frequency Acoustic Tracking Capability for Ocean & Freshwater Components of the POST Tracking Array	Kintama Research	Mainstem/Systemwide	None Selected	\$330,199		\$330,199
200751100	DNA typing to identify native inland Oncorhynchus mykiss	Washington State University	Mainstem/Systemwide	Systemwide	\$128,705	\$88,659	\$217,364
200751200	Documentation of food-web linkages in the mainstem Columbia River: towards understanding the role of invasive species and establishing a baseline trophic state	US Geological Survey - Cook	Mainstem/Systemwide	Columbia Gorge	\$232,228	\$105,146	\$337,374
200751300	Eelgrass enhancement and restoration in the Columbia River Estuary through innovative site selection and planting techniques	Pacific Northwest National Laboratory	Lower Columbia	Columbia Estuary	\$180,394	\$72,400	\$252,794
200751400	Effectiveness monitoring of in-stream habitat restoration using tools from population ecology	US Forest Service - Pacific Northwest Research Station	Columbia Cascade	Entiat	\$96,812	\$96,812	\$193,624
200751500	Elemental analysis of fin spines: A potential tool for assessing movement of white sturgeon (Acipenser transmontanus) within the Lower and Mid-Columbia River basin	Oregon Department of Fish & Wildlife	Columbia Gorge	Columbia Gorge	\$42,122		\$42,122
200751600	Enhancing Summer Instream Flow and Reducing Temperature in Agricultural Watersheds	Washington State University	Blue Mountain	Tucannon	\$151,264	\$73,502	\$224,766
200751700	Estimating abundance of white sturgeon by using visual strip-transects; an alternative to mark-recapture population estimates	US Geological Survey - Cook	Mainstem/Systemwide	Columbia Gorge	\$344,027	\$246,898	\$590,925
200751800	Evaluation of artificial upwelling to enhance lower Columbia River Gorge chum salmon spawning	Pacific Northwest National Laboratory	Lower Columbia	Mainstem on the ground/Mu	\$109,369	\$64,221	\$173,590

PropID	Title	Sponsor	Province	Subbasin	FY08	FY09	Total project \$
200751900	Feasibility of using a computerized video system to estimate lamprey passage at Bonneville Dam	Columbia River Inter-Tribal Fish Commission			\$53,797	\$39,735	\$93,532
200752000	Genetic Predisposition of Smoltification in Rainbow Trout and Steelhead	Columbia River Inter-Tribal Fish Commission	Columbia Gorge	Klickitat	\$44,837	\$45,141	\$89,978
200752100	Improving Fish Habitat Using Innovative Strategies to Remediate Contaminated Sediments in the Columbia River Basin	Washington State University	Intermountain	Coeur d'Alene	\$55,534	\$129,578	\$185,112
200752200	Innovative Fish Sample Gear for Reducing Stress and Mortality in the Catch and Increasing Efficiency in Monitoring the Effectiveness of Dike Removal Projects	Columbia River Estuary Study Taskforce	Lower Columbia	Columbia Estuary	\$6,731	\$1,107	\$7,838
200752300	Innovative methods to quantify transport of hydrophilic and legacy pesticides to the riparian zones within the Yakima Basin	U.S. Geological Survey- Washington Water Science Center	Columbia Plateau	Yakima	\$143,528	\$73,381	\$216,909
200752400	Integrated Non-Lethal Electric Barrier and Sonar System to Deter Marine Mammal Predation on Fish in the Columbia River System: A	Smith-Root, Inc	Lower Columbia	Columbia Lower	\$615,691	\$824,792	\$1,440,483
200752500	Integrating Ecological Flows into River Management on the Willamette River	Nature Conservancy	Lower Columbia	Willamette	\$52,538	\$11,613	\$64,151
200752600	Lake oxygention pilot study: Improving Redband Trout habitat quality in Twin Lakes, WA	Washington State University	Intermountain	Columbia Upper	\$217,990	\$53,644	\$271,634
200752700	Lake Roosevelt Littoral Habitat Enhancement Project	Colville Confederated Tribes	Intermountain	Columbia Upper	\$293,806	\$280,306	\$574,112
200752800	Little McCormick Creek: Investigating Placer Mine Impacts to Streamflow Connectivity and Developing New Restoration Techniques	Trout Unlimited	Mountain Columbia	Clark Fork	\$45,500	\$51,300	\$96,800
200752900	Loss of salmon and steelhead productivity due to barriers in the Lower Columbia River ESU	Washington Department of Fish and Wildlife	Columbia Gorge	Wind	\$101,250	\$57,076	\$158,326
200753000	MADS Weir Demonstration Project in Walla Walla Subbasin (MADS - Modular Arch Drop Structure)	Steward and Associates (in conjunction with the Walla Walla Countv Soil and Water Washington State University	Mainstem/Systemwide	Walla Walla	\$103,050	\$15,700	\$118,750
200753100	Microbial Assessment of Thermal Impacts of Dworshak Reservoir Releases	Washington State University	Mountain Snake	Clearwater	\$108,368	\$57,105	\$165,473
200753200	Molalla-Pudding Sub basin Assessment; utilizing the new EPA Watershed Assessment of the River Stability and Sediment Supply(WARSSS)procedural methods to increase anadromous fish survivability	Molalla River Watch	Lower Columbia	Willamette	\$166,217	\$105,005	\$271,222
200753300	Monitoring fine sediment delivery to fish habitat in the Entiat River subbasin	PNW Research Station -- Wenatchee	Columbia Cascade	Entiat	\$220,550	\$74,450	\$295,000
200753400	Performance comparison of a stationary PIT tag antenna array in Lookingglass Creek, Oregon	Confederated Tribes of the Umatilla Indian Reservation	Blue Mountain	Grande Ronde	\$31,733	\$16,096	\$47,829
200753500	Physical and Biological Field Testing of a Flow Velocity Enhancement System (FVES)	Natural Solutions	Mainstem/Systemwide	Cowlitz	\$318,310		\$318,310
200753600	Piloting StreamBank™ Web Tool and permitting efficiencies to achieve Middle Fork John Day River Channel Reactivation and Floodplain Restoration.	Oregon Trout	Columbia Plateau	John Day	\$327,742	\$27,199	\$354,941
200753700	Population specific in-season forecasts of Columbia River Chinook salmon (Oncorhynchus tshawytscha) returns for allowing selective in-river fisheries	Columbia River Inter-Tribal Fish Commission	Mainstem/Systemwide	Columbia Gorge	\$66,508	\$33,254	\$99,762
200753800	Predicting the future effects of climate-induced stream warming on spring Chinook salmon and their predators in the John Day River Basin	University of Washington	Columbia Plateau	John Day	\$161,802	\$53,157	\$214,959

PropID	Title	Sponsor	Province	Subbasin	FY08	FY09	Total project \$
200753900	Promote Kokanee Repopulation in Lake Pend Orielle using Autonomous Underwater Vehicles (AUVs) for Location and Verification of Lake Trout Spawning Areas.	University of Idaho - Microelectronics Research & Communications Institute (MRCI)	Intermountain	Pend Oreille	\$363,476	\$36,701	\$400,177
200754000	Quantitative Assessment Sampling for Pacific Lamprey in Cedar Creek (Lewis River Subbasin), Washington	US Fish & Wildlife Service	Lower Columbia	Lewis	\$95,127	\$44,873	\$140,000
200754100	Reecer Creek Floodplain Restoration Project to support ecosystem function using build-in-the-dry and 3 yrs revegetation to encourage channel dynamics, habitat formation and natural sediment management	South Central Washington Resource Conservation and Development	Columbia Plateau	Yakima	\$400,307	\$28,000	\$428,307
200754200	Shad for Nutrient Enhancement -- Demonstration of Fishery Supply, Disease Evaluation, Product Type and Potential Use	Washington Department of Fish and Wildlife	Mainstem/Systemwide	Columbia Lower	\$96,526	\$66,874	\$163,400
200754300	Simmons Dike Removal feasibility study	Umatilla Basin Watershed Council		Umatilla	\$39,800	\$3,200	\$43,000
200754400	Spawning Channel for Chum Salmon at Beaver Creek Hatchery	Washington Department of Fish and Wildlife	Columbia Estuary	Elochoman	\$372,500	\$25,500	\$398,000
200754500	Stock specific run timing and upstream migration mortality of adult Chinook salmon and steelhead through genetic stock identification and PIT tagging	Columbia River Inter-Tribal Fish Commission	Mainstem/Systemwide	Systemwide	\$101,534	\$21,616	\$123,150
200754600	Test of protocols and validation of estimates derived with traditional and new methods for steelhead adults, smolts, and parr using an instream PIT-	US Geological Survey - Cook	Columbia Gorge	Wind	\$155,853	\$80,932	\$236,785
200754700	The Natural Tag - TNT	Biopar, LLC	Mainstem/Systemwide		\$170,238	\$59,050	\$229,288
200754800	The use of cDNA microarrays to develop biomarkers of environmental stress in salmonids and other fishes	US Geological Survey - Cook	Mainstem on the ground/\	Systemwide	\$284,065	\$288,287	\$572,352
200754900	Toppenish Creek Well Modification Project	Yakama Nation	Columbia Plateau	Yakima	\$337,821	\$13,602	\$351,423
200755000	Toxics as a limiting factor for salmon recovery throughout the Columbia River Basin: understanding the enhanced toxicity of pesticide mixtures	Northwest Fisheries Science Center	Mainstem/Systemwide	Systemwide	\$162,493	\$36,751	\$199,244
200755100	Use of a novel technique to compare of Pre-and Post-migratory energy storage and use in upriver coho salmon: How much change can occur with intense selective pressure.	Yakama Nation	Mainstem/Systemwide		\$29,012	\$20,233	\$49,245
200755200	Use of LA-ICPMS and fin ray microchemistry to examine historic and present movement patterns in Upper Columbia River white sturgeon	Ministry of Environment			\$54,900	\$20,625	\$75,525
200755300	Using acoustic telemetry to evaluate the behavior, habitat use, and survival of tagged juvenile salmonids in the John Day Reservoir	US Geological Survey - Cook	Mainstem/Systemwide	John Day	\$844,848	\$132,487	\$977,335
200755400	Using advanced technologies to help reduce the impacts of global warming on anadromous and resident fish populations in the Columbia Basin	US Forest Service - Rocky Mt Research Station	None Selected	Systemwide	\$187,466	\$106,836	\$294,302
200755500	Using otolith microchemistry and microstructure to assess the causes and consequences of alternative life history strategies for Snake River fall Chinook	Northwest Fisheries Science Center		Systemwide	\$295,787	\$277,465	\$573,252
200755600	Water Stargrass Demonstration and Management in the lower Yakima River for Spawning Habitat, Water Quality and Beneficial Uses (WiSDoM)	Benton Conservation District	Columbia Plateau	Yakima	\$314,570	\$57,880	\$372,450
200755700	What was old is new again: evaluate traditional gears for selective harvest	Washington Department of Fish and Wildlife	Lower Columbia	Columbia Lower	\$333,728	\$111,243	\$444,971
200755800	Willamette Mitigation	The Nature Conservancy	Lower Columbia	Willamette	\$187,558	\$90,086	\$277,644
200754900	Toppenish Creek Well Modification Project	Yakama Nation	Columbia Plateau	Yakima	\$337,821	\$13,602	\$351,423
Totals:					\$11,319,377	\$4,899,955	\$16,219,332