University of Idaho
College of Natural Resources
Department of Fish and Wildlife Resources
P.O. Box 441136
Moscow, Idaho 83844-1136
Phone: 208-885-6434
Fax: 208-885-9080
E-mail: fish_wildlife@uidaho.edu

February 4, 2002

Mr. Tom Iverson
Columbia Basin Fish and Wildlife Authority
2501 SW First Avenue, Suite 200
Portland, Oregon 97201

Re: Funding Options for Columbia Plateau Province Proposal (BPA Project No # 25036): The Impacts of Flow Regulation on Riparian Cottonwood Ecosystem in the Yakima Basin

Dear Mr. Iverson:

Last year, we submitted a research proposal as part of the Columbia Plateau Provincial Review Process. This proposal was based on the preliminary findings of our BPA Innovative Project to study the impacts of regulated flows on riparian cottonwoods in the Yakima and Kootenai River Basins. Despite excellent CBFWA/ISRP reviews and their high priority recommendations for funding (see attachments), our proposal was excluded from funding because all phases of our innovative project had not be completed prior to funding decisions by the Council for the Columbia Plateau Province.

At this time, we have completed and submitted all of the final reports for our innovative project (reports available online at http://www.efw.bpa.gov/cgi-bin/efw/FW/welcome.cgi.). The initial findings of our innovative project have clearly shown that current patterns of flow regulation in the Yakima Basin have a significant negative effect on the structure and function of riparian cottonwood forests. In the process, we also advanced our understanding of how these flow regimes can be modified to promote the recovery of these riparian forest communities. However, additional funding (as outlined in our recent proposal) is needed to complete the studies initiated under the Innovative Projects Program. Since our innovative project has been successfully completed, we would like to request that CBFWA and the Council reconsider our proposal for funding.

Sincerely,

Jeffrey H. Braatne
Asst. Professor of Riparian Ecology

Robert Jamieson
BioQuest International Ltd

CC: Mr. Doug Marker, NWPPC
Dr. Tom Morse, BPA

http://www.cbfwa.org/files/province/plateau/projects/25036.htm#reviews

Reviews and recommendations

This information was not provided on the original proposals, but was generated during the review processes. On 8/3/2001, CBFWA submitted project recommendations to the NWPPC/ISRP as part of its Draft Columbia Plateau province workplan.

CBFWA Recommendations & Sponsor Responses to ISRP	ISRP Preliminary and Final Recommendations
Recommendation: High Priority **Recommended funding level:** $225,495	On 8/8/2001, the Independent Scientific Review Panel (ISRP) issued its final report (document 2001-8, see the PDF formatted version) on its review of projects for Columbia Plateau. On 6/15/2001, the ISRP issued a report of preliminary comments on these proposals. The recommendations and comments from the ISRP are shown below for this project.
	8/8/2001 (final) recommendation and comments: Fundable. This proposal has been developed based on a BPA Innovative Projects Program that was initiated to study the impact of regulated flows on riparian cottonwoods in the Yakima River Basin. Initial results of that study have shown that current patterns of flow regulation within the Yakima Basin are having a significant negative effect on the recruitment of cottonwood seedlings. The authors have also developed a preliminary model for modifying flow regimes to promote the recovery of riparian cottonwoods, and assessed several different types of multi-spectral imagery for classifying the extent of riparian cottonwood ecosystems. The life history and ecology of riparian cottonwoods are closely linked with the dynamics of riverine processes. With the damming of rivers and subsequent alteration of seasonal flow regimes, the structure and function of riparian cottonwood ecosystems have been significantly altered along many western rivers. On the merits of their recent

	findings, these authors propose to expand their sampling efforts and integrate studies of cottonwood recruitment with specific measures of fluvial geomorphic activity. The results of these studies would provide a scientific basis for modifying flows to lessen the ecological impacts of flow regulation in the Yakima Basin. The authors will also assess these quantitative relationships in a non-regulated reach that can serve as a natural analogue to the Yakima River; specifically, the Middle Fork (Nyack Reach) of the Flathead River in western Montana. These authors suggest that the synergy of these efforts would significantly advance the understanding of the ecology of alluvial reaches in the Columbia River Basin and quantify key relationships between flow regulation, geomorphic activity, cottonwood recruitment and the recovery of riparian-dependent wildlife, salmon and other native fish. The proposal also has strong support of agencies within the Yakima River Basin. The proposal presented was well organized and informative. The ISRP strongly supports such investigations of riparian ecosystems and the development of remedial measures to restore productive riparian habitats. Costs for the proposal are modest and the study will be completed in FY04.
	6/15/2001 (preliminary) recommendation: Fundable - no response needed **6/15/2001 comments** Fundable. This proposal has been developed based on a BPA Innovative Projects Program that was initiated to study the impact of regulated flows on riparian cottonwoods in the Yakima River Basin. Initial results of that study have shown that current patterns of flow regulation within the Yakima Basin are having a significant negative effect on the recruitment of cottonwood seedlings. The authors have also developed a preliminary model for modifying flow regimes to promote the recovery of riparian cottonwoods, and assessed several different types of multi-spectral imagery for classifying the extent of riparian cottonwood ecosystems. The life history and ecology of riparian cottonwoods are closely linked with the dynamics of riverine processes. With the damming of rivers and subsequent alteration of seasonal flow regimes, the structure and function of riparian cottonwood ecosystems have been significantly altered

	along many western rivers. On the merits of their recent findings, these authors propose to expand their sampling efforts and integrate studies of cottonwood recruitment with specific measures of fluvial geomorphic activity. The results of these studies would provide a scientific basis for modifying flows to lessen the ecological impacts of flow regulation in the Yakima Basin. The authors will also assess these quantitative relationships in a non-regulated reach that can serve as a natural analogue to the Yakima River; specifically, the Middle Fork (Nyack Reach) of the Flathead River in western Montana. These authors suggest that the synergy of these efforts would significantly advance the understanding of the ecology of alluvial reaches in the Columbia River Basin and quantify key relationships between flow regulation, geomorphic activity, cottonwood recruitment and the recovery of riparian-dependent wildlife, salmon and other native fish. The proposal also has strong support of agencies within the Yakima River Basin. The proposal presented was well organized and informative. The ISRP strongly supports such investigations of riparian ecosystems and the development of remedial measures to restore productive riparian habitats. Costs for the proposal are modest and the study will be completed in FY04.

ProjectID	Title	Sponsor	Province	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	ISRP Review	CBFWA Category
					T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7			
	Yakima Subbasin																					
25036	The Impact of Flow Regulation on Riparian Cottonwood Ecosystems in the Yakima River Basin.	BioQuest International Consulting Ltd.	North Columbia Plateau	Yakima	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N		Fundable - no response needed	HP

Project ID	02_impl	02_m&e	02_o&m	02_plan	Total Of 2002	03_impl	03_m&e	03_o&m	03_plan	Total Of 2003	04_impl	04_m&e	04_o&m	04_plan	Total Of 2004
25036	$225,495.00				$225,495.00	$134,421.00				$134,421.00	$70,150.00				$70,150.00

COLUMBIA PLATEAU PROVINCIAL REVIEW PROJECTS

NMFS' Assessment With Respect to 2000 FCRPS Biological Opinion

Project Number	Project Title	RPA Action Item(s)	ESU(s) Affected	Statement of Potential Biological Benefit to ESU	Already ESA Required?	Biop?	Comments
25036	The Impact of Flow Regulation on Riparian Cottonwood Ecosystems□in the Yakima River Basin.	183	MCR SH, MCR SCH	Project will further understanding of how flow management in the Yakima affects riparian forest conditions. Effort would advance the understanding of the ecology of alluvial reaches in the Columbia River Basin & quantify key relationships between flow regulation, geomorphic activity, cottonwood rescruiment and the recovery of riparian-dependent wildlife, salmon, & other native fish.	no	yes	Proposal was developed based on a BPA Innovative Projects Program that was initiated to study the impact of regulated flows on riparian cottonwoods in the Yakima River Basin. The project would research riparian cottonwood & geomorphic response to regulated flows in the Yakima Basin and compare to the responses of an unregulated reach of the Flathead River with the objective of enhancing flows to restore riparian habitats in the Yakima Basin.