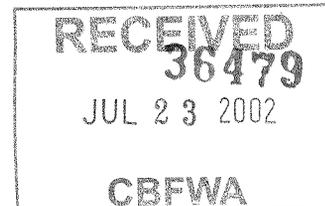




ALL
UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
525 NE Oregon Street
PORTLAND, OREGON 97232-2737

F/NWR5

July 19, 2002



Mr. Doug Marker
Director of Fish and Wildlife
Northwest Power Planning Council
851 S.W. Sixth Ave., Suite 1000
Portland, OR 97204-1348

Re: NOAA Fisheries Comments on the Columbia Estuary Province Proposals

Dear Mr. ^{Doug}Marker:

This letter transmits the results of the National Marine Fisheries Service's (NOAA Fisheries) review of proposals submitted under Bonneville Power Administration's (BPA) solicitation for the Columbia Estuary Province. By copy of this letter, we are also providing our evaluations to the BPA, the U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, the U.S. Fish and Wildlife Service, other affected Federal agencies, and the Columbia Basin Fish and Wildlife Authority (CBFWA).

NOAA Fisheries staff participated in the CBFWA process to evaluate and rate proposals. The attached spreadsheet (Enclosure 1) for the Columbia Estuary Province is in the same format as those provided to the Council and BPA for earlier provincial reviews and addresses the same parameters. Enclosure 2 provides an explanation of acronyms and criteria for Enclosure 1.

The Estuary and Lower Columbia Provinces are of significance to all listed anadromous fish under the 2000 Federal Columbia River Power System Biological Opinion (Biological Opinion). The Biological Opinion recognizes that estuary protection and restoration must play a vital role in rebuilding the productivity of salmon runs throughout the Columbia Basin. The Biological Opinion identifies the Comprehensive Conservation and Management Plan (CCMP) developed by the Lower Columbia River Estuary Partnership as a vehicle to support estuary restoration and salmonid recovery.

The CCMP supports the development of a three pronged approach to salmonid recovery: targeted research, site-specific and long-term trend monitoring that can be used in a larger regional decision-making framework, and restoration/habitat acquisition actions that support key ecosystem functions and salmonid habitat in the estuary. This approach is endorsed by NOAA Fisheries Northwest Fisheries Science Center and the Regional Office.



We evaluated the proposals in the context of this approach. Our comments note those proposals that we believe support a comprehensive and integrated approach to salmonid recovery and long-term estuary restoration. These proposals also compliment one another in their breadth and scope, and include a variety of applicants (state, Federal, local), such that all interested parties can continue to collaborate in implementing the three-pronged approach.

This letter addresses only the suite of proposals that were submitted for funding in the Columbia Estuary Province. The scope of submitted projects may not be sufficient to address all of the RPA actions that apply to this province. We will begin our analysis immediately and, to the extent that we identify any gaps in the range of proposed projects, they will be addressed in subsequent correspondence to BPA, the Council, and others. We will provide you with the results of that analysis as soon as possible.

NOAA Fisheries appreciates the opportunity to provide this information and facilitate coordination between implementation of the Columbia River Fish and Wildlife Program and the Biological Opinion. If you have further questions regarding our review of these proposals please feel free to contact John Palensky (503 231-2177) of my staff.

Sincerely,



Brian J. Brown
Assistant Regional Administrator
Hydro Division

Enclosures

cc: Sarah McNary, BPA
Lorri Bodi, BPA
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Mary Lou Soscia, EPA
Paul Anderson, USFS
Paula Burgess, BLM
Keith Hatch, BIA
Rod Sando, CBFWA

**National Marine Fisheries Service Review of Columbia Estuary Province Project Proposals
(Sorted by Project Number)**

Enclosure 1

Project Number	Title	RPA Action Items	ESU(s) Affected	Statement of Potential Biological Benefit	Already ESA Req?	Biop?	Comments
30001	Historic habitat opportunities and food-web linkages of juvenile salmon in the Columbia River estuary: Implications for managing flows and restoration	158, 162	Multiple, including all ESUs addressed by the RPA	Benefits are Indirect. Fulfills some of the critical information gaps identified in the NMFS report 'Salmon at River's End' submitted to BPA. Will lead to a basis to evaluate habitat protection and restoration needs in the lower Columbia River and estuary in relation to changing climatic and river flow conditions.	No	Yes	The proposal is complete, ready to implement, and fulfills Biop requirements in part. Because this proposal is sponsored by NOAA Fisheries, it would be inappropriate for us to comment further on it.
30002	Optimization of FCRPS Impacts on Juvenile Salmonids: Restoration of Lower-Estuary and Plume Habitats	158, 161, 187, 194, 196	Multiple, including all ESUs addressed by the RPA	Benefits are indirect. In concert with proposal 30001 and 199801400, will lead to management scenarios to allow beneficial use of river flows conducive to power management as well as to juvenile salmon in the lower Columbia River, estuary, and plume.	No	Yes	The proposal develops management scenarios to provide alternatives to maximize habitat opportunity for juvenile salmon while fulfilling power generating needs. The proposal is complimentary research to proposals 30001 and 199801400 on the development of management scenarios. The proposal is complete and ready to implement. Fulfills Biop requirements in part.
30003	Evaluation of Two Captive Rearing Methods for Assisting with Recovery of Naturally Spawning Populations of Steelhead and Coho Salmon	182, 184	Multiple	Benefits are indirect. Hatchery/research project proposes a rigorous examination of two novel hatchery intervention strategies (1) to determine effectiveness at providing demographic boost to depressed populations and (2) to evaluate spawning effectiveness of resulting adults.	No	Yes	Relevance to the RPA actions presumes the information will be transferable to FCRPS Biop ESUs. This is a well-organized and designed project. However, it is unclear exactly how the reproductive success of NOR and HOR spawners will be evaluated (we assume a comparison with control streams is intended). Complete DNA sampling would enhance this effort. In addition, NMFS would like to see greater evaluation of the effect of the strategies on wild stocks (e.g., is there likely competition between captively-reared and released fish and wild fish?).
30004	Blind Slough Restoration Project - Brownsmead, Oregon	160	Multiple, including COL CHUM and SR FCH	Project will improve habitat for juvenile salmonids potentially increasing survival for this life stage.	No	Yes	This proposal is a good quality restoration project. It is part of a larger restoration program proposed by LCREP and member organizations (CREST). There is high public support for this project. The project will benefit ocean-type juvenile anadromous fish. The RPA ocean type ESUs are COL CHUM and (possibly) SR FCH. Fulfills Biop requirements in part.
30005	Grays River Watershed and Biological Assessment	157	CR Chum	Benefits are indirect. Project is to conduct a watershed and biological assessment of the Grays River watershed to protect and restore chum spawning habitat	No	Yes	This is a good quality proposal. The watershed assessment portion of this proposal is ready to implement and fulfills Biop requirements in part.

**National Marine Fisheries Service Review of Columbia Estuary Province Project Proposals
(Sorted by Project Number)**

Enclosure 1

30006	Effectiveness monitoring of the Chinook River estuary restoration project.	157, 158, 159, 162	Multiple, including COL CHUM and SR FCH	Benefits are Indirect. Evaluation and monitoring of salmon responses to estuarine restoration.	No	Yes	The Chinook River project is an excellent example of how to design a restoration project. It is part of a larger restoration program proposed by LCREP and member organizations (Sea Resources). Project will increase our knowledge of salmonid utilization of the estuarine environment. Important M&E to provide a measure of the success of estuarine restoration projects. It is complete and ready to implement. Fulfills Biop requirements in part.
30007	An Acoustic Tracking Array for Studying Ocean Survival and Movements of Columbia River Salmon	195	Multiple, including all ESUs addressed by the RPA	Benefits are indirect. Could provide a system to track juvenile and adult salmon out of the Columbia River and through the coastal shelf from northern California to the Alaskan peninsula	No	Yes	This proposal more suited for the System-wide program; not part of the CR estuary province. Focus is not for the CR estuary, but rather tracking of salmon along the coastal shelf.
30008	Instream evaluation of populations, migration timing, individual adult return rates, and wild-hatchery interactions of 3 naturally produced salmonids	184, 193	LC SH	Benefits are Indirect. A broad research and monitoring program based on PIT tag technology for a wide variety of applications. Specifically, the project proposes to assess life history variation and hatchery/wild interaction via PIT tagging.	No	No	Very broad program, not clear of the objectives, how they relate to each other, and how the information gathered will be used. LC SH are not an FCRPS Biop ESU.
30009	Coastal Cutthroat Movements in the Columbia River Estuary	0		Withdrawn - funded by Corps of Engineers		No	
30010	Canada-USA Shelf Salmon Survival Study	190, 195	Multiple, including all ESUs addressed by the RPA	Benefits are indirect. Will provide information of growth and potentially survival benefits in changing coastal conditions to particular stocks of CR basin salmon that rear and utilize ocean habitats off the coast of British Columbia	No	Yes	This proposal more suited for the System-wide program; not part of the CR estuary province. Focus is not for the CR estuary, but rather along the coastal shelf of Canada and SE Alaska
30011	Preserve and Restore Columbia River Estuary Islands to Enhance Juvenile Salmonid and Columbian White-tailed Deer Habitat.	160	Multiple, including COL CHUM and SR FCH	Potential increase in survival by providing and protecting rearing and foraging habitat for juvenile salmon.	No	Yes	If implemented, the proposal will restore tidal and forested wetlands in Columbia River estuary. These are habitats that have been lost and are critical to the survival and recovery of listed salmonids. This proposal represents current thinking of needed effort that will compliment studies identify salmon-habitat linkages in the Lower Columbia River and estuary. The proposal supports efforts of USFWS on Federal lands which will therefore ensure ong-term protection of area. The project is ready to implement. Fulfills Biop requirements in part.

**National Marine Fisheries Service Review of Columbia Estuary Province Project Proposals
(Sorted by Project Number)**

Enclosure 1

30012	Compare Bacterial Fish Pathogen Populations in Hatchery Water and in Adjacent Creek Water and Evaluate Possible Disease Transfer Between Them.	184	LCR SH, LCSW COHO	Project will evaluate the pathogen presence and distribution to determine critical control points for minimizing the transfer of these pathogens either into or out of the hatchery system.	No	No	The proposed research has the potential to answer a number of important questions on the transmission of disease between wild and hatchery stock. However, the proposal as presented lacks adequate detail.
30013	Role of Bacteria as Indicator Organisms for Watershed Assessment and in Determining Fish Pathogen Relationships with Fauna of Abernathy Creek	152, 155	LCR SH	Uses indicator bacteria species found in the water and in other aquatic life to assess and monitor the health of the system, and attempt to determine the relationship of fish pathogens to other aquatic bacteria. Monitoring bacterial indicator species may make it possible to detect the onset of habitat degradation and predict harmful pathogen growth.	No	No	This proposal may provide some links between aquatic health and microbial communities. However, explicit links to fish survival, or population response appear to be lacking (i.e. it is unclear what the impact that the presence of various microbes or environmental indicators with which they might be associated have on fish population status), somewhat lessening the utility of these metrics. In addition, determining some of the environmental variables (e.g. logging, housing, etc.) may be more challenging than the proposers believe.
30014	Map Subtidal Large Woody Debris and Other Habitat Features in Relation to Fish Distribution in the Lower Columbia River Estuary			Project withdrawn			
30015	Lower Columbia River and Columbia River Estuary Ecosystem Monitoring and Data Management	161	Multiple, including COL CHUM and SR FCH	Indirect. Project products can be used in the conservation /restoration of salmonid habitats to potentially increase survival.	No	Yes	This project supports the RM&E goals of the Biop. It forms basis of long-term research and monitoring program that compliments proposals 3000, 199801400, and 30002. The proposal fills a critical gap for comprehensive habitat monitoring and data management in the Lower Columbia River and estuary. Since data base development is critical for both the lower river and the basin, this effort should also be coordinated with other efforts in the basin to develop a comprehensive plan. Fulfills Biop requirements in part.

**National Marine Fisheries Service Review of Columbia Estuary Province Project Proposals
(Sorted by Project Number)**

Enclosure 1

30016	Implement the Habitat Restoration Program for the Columbia Estuary and Lower Columbia River	158, 159, 160	Multiple, including COL CHUM and SR FCH	Implementation of restoration actions will conserve /restore salmonid habitats to potentially increase survival.	No	Yes	This project proposes to develop a series of restoration projects that have been screened through science-based habitat criteria. The proposed projects have regional acceptance and therefore a high likelihood of being implemented. The project applicant needs to develop a monitoring proposal to support the restoration efforts proposed. Funding the programmatic portion of this proposal provides the estuary province with a head start to develop the sub-basin plan for this province based on the LCREP Comprehensive Conservation and Management Plan. Perhaps the proposal can be split into separate restoration and program development proposals for easier funding. Fulfills Biop requirements in part.
30017	Columbia River Tidewater assessment for Recovery Planning	159, 162	LCR SH, COL CHUM, LCR CH, UWR SH, UWR CH	Indirect. Project would characterize salmon habitat in the tidal-fluvial reach of the Columbia River to support recovery planning.	No	Yes	Project would fund product development of LCR TRT.
30018	Salmonid Population and Habitat Monitoring in the Oregon Portion of the Columbia Estuary	180	LCR SH	A spatially balanced status monitoring program for Lower Columbia Tributary habitat, juvenile and adult salmonids.	No	No	This proposal proposes a very important monitoring effort that is vital to the management of the province's habitat and anadromous salmonids. Nothing like this program yet exists in this region. The proposal should be coordinated with proposal 31034 to reduce duplication of effort. This proposal has the full support of the NWFSC. This proposal is key to moving the basin forward in a uniform program of monitoring data collection.
199801400	Survival and Growth of Juvenile Salmonids in the Columbia River Plume	158, 162, 194, 195, 197	Multiple, including all ESUs addressed by the RPA	Indirect. Define the role of the CR plume for juvenile salmon and the role of natural (climate) and human-induced (river flows) changes on habitat opportunity.	No	Yes	The proposal is complete, ready to implement, and fulfills Biop requirements in part. Because this proposal is sponsored by NOAA Fisheries, it would be inappropriate for us to comment further on it.

Enclosure 2. Explanation of Acronyms and Criteria in Enclosure 1

Reasonable and Prudent Alternative (RPA) Action Item(s)

BASE = an ongoing project that affected the survival of broods returning as adults during the base period and which will continue to influence survival at the same rate in the proposed project. The project therefore comprises part of the environmental baseline presumed in the NMFS 2000 Federal Columbia River Power System biological opinion (2000 FCRPS Opinion).

0 = an action that is not called for (specifically or generically) by provisions of the RPA.

1-199 = RPA action number for a project that is called for (specifically or generically) and thus may implement (in whole or part) one of the RPA action items in the NMFS 2000 FCRPS Opinion. This may include ongoing projects that did not affect the survival of broods returning as adults during the base period.

400 = a riparian protection project that is consistent with the riparian restoration intentions of the RPA but does not fully meet the two criteria of RPA Action 153: (1) the easements are not part of the Conservation Reserve Enhancement Program (CREP) or other agricultural incentive program; and (2) the easements are not long term (> 15 years) or permanent.

500 = a flow, passage, screening, or water acquisition/lease that is consistent with the intentions of the RPA but is not in one of the 16 priority subbasins (therefore not associated with RPA 149).

600 = an ongoing conservation hatchery program consistent with the safety-net concept, the continuation of which was implicitly assumed but not explicitly identified in RPA Action 176. Specifically, this category applies to: (1) the ongoing Snake River sockeye salmon captive broodstock program; (2) the ongoing Snake River spring/summer chinook captive rearing program; (3) the genetic cryopreservation project; and (4) other ongoing projects, yet to be identified, that may clearly fit the safety-net concept. Continued implementation of these programs is also consistent with RPA Action 177.

ESU(s) Affected

The following is a list of acronyms used in the table. Listed evolutionarily significant units (ESU) are in **BOLD** and the eight listed ESUs included in the 2000 FCRPS Opinion's reasonable and prudent alternative are indicated by (*).

SR SSCH	Snake River Spring/Summer Chinook Salmon(*)
SR FCH	Snake River fall Chinook Salmon(*)
SR SOCK	Snake River Sockeye Salmon(*)

SR SH	Snake River Steelhead(*)
UCR SCH	Upper Columbia River Spring Chinook Salmon(*)
UCR SH	Upper Columbia River Steelhead(*)
UCR SFCH	Upper Columbia River Summer/Fall Chinook
OR SOCK	Okanogan River Sockeye Salmon
LW SOCK	Lake Wenatchee Sockeye Salmon
MCR SH	Middle Columbia River Steelhead(*)
MCR SCH	Middle Columbia River Spring Chinook Salmon
LCR CH	Lower Columbia River Chinook Salmon
LCR SH	Lower Columbia River Steelhead
LCSW COHO	Lower Columbia/Southwest WA Coho Salmon
SWW SH	Southwest Washington Steelhead (<i>below Cowlitz on WA side; below Willamette on OR side</i>)
COL CHUM	Columbia River Chum Salmon(*)
UWR CH	Upper Willamette River Chinook Salmon
UWR SH	Upper Willamette River Steelhead
MULTIPLE	Four or more ESUs affected by project
N/A	Affected species is not a Columbia River basin salmon or steelhead
NONE	Project will have <u>no biological effect</u> on any species

When the affected species is a salmon or steelhead of unknown lineage, or one that NMFS has not assigned to an ESU (perhaps because it is a composite hatchery stock), the following acronyms are used:

SPR CHN-U SMR CHN-U FALL CHN-U COHO-U STHD-U SOCK-U

Statement of Potential Biological Benefit to ESU

Text Describing Benefit = the project as proposed is likely to provide a direct or indirect benefit for the affected ESUs if the project is successfully implemented.

N/A = the project is not likely to provide a biological benefit or the project is likely to benefit some fish or wildlife species, but not the salmon and steelhead stocks described above.

Already ESA Required?

YES = the project is already required by an existing NMFS ESA document, or is likely to be required as a result of an ongoing NMFS ESA consultation. ESA documents include Section 7 biological opinions or proposed actions in informal consultations, and Section 10 take permits and associated HCPs.

NO = project is not already required by an existing NMFS ESA document or likely to be required as a result of an ongoing NMFS ESA consultation, or the proposal would accelerate completion of HGMPs or subbasin assessments and plans or go beyond requirements established in Section 7 or 10 processes/documents. (See "NMFS Guidance: Giving Credit for Offsite Mitigation" for further clarification).

Biop?

YES = all four of these conditions are met:

- There is a number greater than zero in the "RPA Action Items" column
- At least one of the eight ESUs that are the subject of the 2000 FCRPS Opinion's RPA is included in the "ESU(s) Affected" column.
- There is a beneficial effect described in the "Statement of Potential Biological Benefit to ESU" column.
- There is a "NO" in the "Already ESA Required?" column.

NO = any of the four conditions described above is not true

Comments

Staff notations are included to help explain some of the determinations in the other columns. These comments by NMFS reviewers should be considered only with regard to the specific proposal and should not be construed or interpreted to indicate any priority or ranking relative to other proposals.