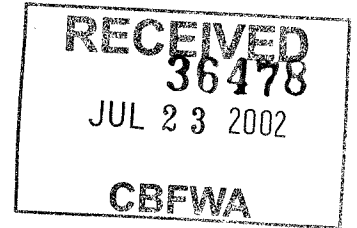




ALL
UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
525 NE Oregon Street
PORTLAND, OREGON 97232-2737

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 Lower Columbia 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 Lower Columbia 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 Lower Columbia 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 Hydro 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 Lower Columbia 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
Witt Anderson, COE
Ron McKown, BOR
Bill Shake, USFWS
Mary Lou Soscia, EPA
Paul Anderson, USFS
Paula Burgess, BLM
Keith Hatch, BIA
Rod Sando, CBFWA

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

Enclosure 1

Project Number	Title	RPA Actions	ESU(s) Affected	Statement of Potential Biological Benefit	Already ESA Req?	Biop?	Comments
31001	Artificial production facilities improvements to support Lower Columbia chum salmon reintroduction into the Chinook River	157	COL CHUM	Supplementation/Hatchery project would increase abundance by expanding habitat usage into the Chinook River, taking advantage of rehabilitated habitat; provide added broodstock source for future efforts.	No	Yes	Useful project to provide alternate brood source and take advantage of improvements in Chinook River.
31002	Wildlife Habitat Protection, Lower McKenzie Watershed (Jaqua)	0	UWR CH	Potential indirect WQ benefit by maintaining watershed condition	No	No	
31003	Distribution and life history characteristics of lampreys in tributaries of the lower Columbia River Basin						Not Reviewed
31004	Salmon Carcass Enrichment -- Willamette (Clackamas) & Sandy Subbasins	0	LWR CH, UWR CH, LCR SH	Indirect benefit.	No	No	Large scale study of potential increase in productivity and fish survival as a result of nutrient addition. Could provide needed information if done credibly. Carcass additions are the latest fad but still largely experimental so this project could assess merit of more widespread use. Need to ensure adequate control. Ties to smolt production need to be clear with nutrient pathways identified.
31005	Incorporating Pit Tag Technology to Evaluate and Monitor the Reintroduction Effort for Anadromous Salmonids in the Upper Cowlitz Watershed	0	LCR SH	Expand the fish collection and detection abilities in the Upper Cowlitz (at hydro projects) to monitor fish passage. Indirect benefit to unlisted steelhead.	No	No	It appears they may presently have some capability to detect 400 khz tags, but this technology is outdated and will require installation of ISO equipment. The overall design also looks good, but some of the expected results will require that NMFS (or someone else) continue trawling in the lower river.
31006	Protect Wood's Landing Chum Spawning Site	150, 152, 157	COL Chum	Protecting this site will secure the only known functioning mainstem spawning habitat for the Bonneville chum population outside of the Ives Island area.	No	Yes	This is a time-limited opportunity to protect habitat for the largest known mainstem spawning population of chum salmon outside the Ives Island area. Given risk of reduced habitat quantity/quality at Ives Island during low water years, this project is an important mitigation measure.
31007	Distribution and seasonal habitat use of ESA-listed salmonid species in City of Portland tributary streams	0	LCR SH, LCR CH, UWR CH, UWR SH	Future benefit for planning and assessment leading to protection and restoration - direct benefits limited	No	No	General in nature and may be part of HCP/4d. Commitment to action or link to specific habitat protection/restoration limited. Potentially valuable information. Needs links to information management/distribution.
31010	Re-open Off-channel Habitat for Lower Columbia ESU	0	LCR SH, LCR CH,	Eliminate velocity barriers to off-channel habitat within the Lower Columbia ESU and potentially increase habitat access and salmon survival	No	No	This is a culvert design and replacement project.

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

Enclosure 1

Project Number	Title	RPA Actions	ESU(s) Affected	Statement of Potential Biological Benefit	Already ESA Req?	Biop?	Comments
31011	Renaturalize Functional Floodplain Habitat within the Portland Reach of the Lower Willamette River	0	UWR CH, UWR SH, LCR CH, LCR SH	Potential improvement to rearing habitat	No	No	Driven by development and mitigation requirements. Has merit. Speculative and may be better suited for research approach -- control with statistically significant sampling with multivariate methods.
31012	Leveraging Conservation Easements for Fish and Wildlife in the Willamette Basin	0	LCR CH, LCR SH	Project intends to enroll willing landowners in riparian easements which could improve habitat and increase survival	No	No	The duration, composition, and characteristics of easements are unclear. Project intends to work outside of USDA programs like CREP.
31013	Investigate Re-establishing Anadromous Fish Populations Above man-made Barriers	0	UWR CH, UWR SH	Increase in production	No	No	Result from Hills Creek/Dexter Dams show real production and downstream survival past dams
31014	Evaluate juvenile salmonid use of restored floodplain wetlands in the Lower Columbia River Estuary	158, 160	Ocean type Juvenile salmon, including COL CHUM and (possibly) SR FC	Indirect. Contribute to our understanding of fish movement which could lead to better designed restoration projects.	No	Yes	Very site specific. Want to do habitat restoration for juvenile salmon that complements waterfowl habitat restoration.
31015	Sturgeon Lake/Dairy Creek Restoration	0	LCSW COHO, LCR CH	Increasing rearing habitat and survival by reopening the Dairy Creek channel to Upper Sturgeon Lake and accomplishing other structural improvements.	No	No	Project is likely to have significant O&M costs in outyears to maintain habitat.
31016	Calapooia River Flow Acquisition and Fish Passage Assessment	0	UWR CH, UWR SH	Potential increase in adult, juvenile, survival.	No	No	Long-term problem with a short term fix without clear future direction. Take of listed fish is evident and subject to enforcement. M&E valuable for assessing relative impact loss to fish, yet fix is evident and the responsibility of the owner - not a clear mill owner commitment relative to enforcement action.
31017	Monitor and evaluate the success of hatchery salmonid reproduction for reintroduction of anadromous salmonids to the upper Cowlitz Basin	BASE	LCR CH, LCR SH, LCSW COHO	Indirect; Evaluation/Research on the reproductive success of hatchery fish compared to natural-spawned fish in the Upper Cowlitz Basin.	No	No	An ongoing project that may have relevance to RPA 182, if the information can be transferred/utilized for RPA ESUs. Note also project 31005.
31018	Willamette Basin Riparian Project	0	UWR CH, UWR SH	Potential long-term improvement to riparian habitat capacity to increase rearing benefit	No	No	Well thought out project. Costs seem high given the current cost-share responsibilities of Federal agencies in the identified USDA programs. Limited focus and accountability.

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

Enclosure 1

Project Number	Title	RPA Actions	ESU(s) Affected	Statement of Potential Biological Benefit	Already ESA Req?	Biop?	Comments
31019	Fish Passage Assessment and Prioritization Program	0	UWR SH	Indirect benefit. Assessment and survey of passage impediments and roads. Potential for increased habitat access	No	No	Reasonable assessment approach. Needs clear links back existing data and efforts to identify culverts for fixing. County can prioritize now. How will this project be so much better? Need to link to CWS Healthy Streams project.
31020	Monitor Coweeman River Salmonid Populations	165, 166, 167, 180, 184	LCR SH, LCR CH, COL CHUM	Benefits are indirect. A focused monitoring and evaluation program for the Coweeman River. This project has high potential biological benefit due to the management importance of the status of salmonid stocks in this system	No	Yes	This is a very important project. The motivation for the work is clear, as is the utility of the data from a resource management perspective. While the general approach differs from that of ODFW for status monitoring, there is no statewide strategy for status monitoring in Washington, nor are there many well designed adult and juvenile monitoring programs. This is a valuable attempt to add critical data for stock status and productivity for Lower River stocks. Fulfills Biop requirements in part.
31021	Reduction of gravel road sediment production & interruption of sediment delivery to streams	0	UWR CH, UWR ST,	Potential improvement to spawning/rearing habitat and survival by reducing fine sediment	No	No	Substantial problem. Development of methodology and M&E to determine effectiveness can be used elsewhere. Is deposition of fines in the streambeds of tributaries to the Tualatin a significant factor limiting egg to fry survival for salmonids?
31022	Establish a Water Cleanup Plan (temperature TMDL) for the East Fork of the Lewis subbasin	152	COL Chum, LCR Ch	None for chum because there aren't any adults or juveniles in the system during July and August when the water temperature exceedences occur	No	No	Sponsor proposes to begin with Lewis and Salmon/Washougal subbasins, which had historical spawning aggregations of chum so information gained through this monitoring network could benefit future efforts to restore historical habitat.
31023	Stream Gaging Installation and Operations in the Lewis, Salmon/Washougal, and Gray/Elochoman Subbasins	multiple	COL Chum, LCR Ch	Indirect Benefit. Could be an important tool in chum habitat restoration planning if gages address relationship between Columbia River flows and hyporheic flow/seepage.	No	Yes	This is good quality proposal that characterizes the physical components that affect habitat availability. The proposal's proposed work on quantifying water inputs can be integrated into the overall assessment capability of modeling efforts that are now on going in the Lower Columbia River and estuary. Fulfills Biop requirements in part.
31024	Protect, Enhance and Maintain Wetland, Riparian and Upland Habitat on the Shillapoo Wildlife Area	0				No	Waterfowl Project
31025	Construct Fish Screen and Fish Passage Improvements at Lebanon Diversion Dam on South Santiam River	0	UWR CH, UWR SH	Potential increase in survival as result of improved habitat access	No	No	Not a priority subbasin. Needed fixes and improvement - Take is evident. Initial consultation underway.

**National Marine Fisheries Service Review Lower Columbia Province Project Proposals
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Enclosure 1

Project Number	Title	RPA Actions	ESU(s) Affected	Statement of Potential Biological Benefit	Already ESA Req?	Biop?	Comments
31027	Movements and Survival of Juvenile and Adult Bull Trout	0	Bull Trout			No	Not Reviewed
31028	Replace Upper and Lower Bennett Dam Fish Ladders in the North Santiam River at Geren Island (Stayton Island)	0		Potential improvement of survival	No	No	Needed fixes and improvement
31029	Clark County ESA Outreach Program	0	LCR SH, LCR CH, LCSW COHO	Indirect. Will develop habitat restoration plans and identify willing landowners, potentially increasing survival.	No	No	Will develop unspecified management plans for willing landowners.
31030	Santiam Water Control District Fish Screen and Passage Project	0	LCR CH, LCR SH	Potential improvement of survival	No	No	Needed fixes and improvement - Initial consultation underway.
31031	Clatsop County Fisheries Restoration Project	0	COL CHUM	If successful, could restore Columbia River Chum salmon to historical spawning areas in Columbia County, OR.	No	No	Captive brood techniques uncertain for chum and coho (have chum or coho ever been raised to adult stage?) Question whether the stock of coho that are part of the captive brood project are an early run hatchery stock or a later run wild component.
31032	Develop a Well Water Supply System for the Hardy Creek Chum Salmon Spawning Channel	16, 157	COL CHUM	Uncertain benefits	No	Yes	The technology behind this project (an underground sprinkler system to mimic hyporheic flow in a manmade chum spawning channel) is somewhat experimental in nature. If the underground sprinkler system functions as proposed, increased habitat in the spawning channel could increase natural production for the Bonneville chum population.
31033	Restoration of Columbia River Floodplain Functions to Steigerwald Lake	160	Multiple	Project intends to restore floodplain function to Steigerwald Lake. This may improve habitat and increase survival.	No	Yes	This is a highly engineered project as opposed to one that uses passive or bioengineered restoration solutions. It has a comprehensive monitoring plan and a good plan for overall restoration of chum salmon. Fulfills Biop requirements in part.
31034	Salmonid Population and Habitat Monitoring in the Oregon Portion of the Lower Columbia Province	180	LCR SH, LCR CH	Spatially balanced habitat and population (both juvenile and adult) salmonid monitoring program for the Oregon portion of the Lower Columbia River. The potential benefit of this work is very high as the region lacks a coordinated status monitoring program; this work is an extension of current successful large scale monitoring programs in the state of Oregon.	No	No	Coordinated status monitoring of salmonid habitat and populations is critical for the effective management of these resources across the basin. This proposal represents a monitoring program already initiated in the state of Oregon that has demonstrated effectiveness for measuring the status and trend of salmonid habitat and populations. To avoid duplication of effort, this proposal should be coordinated with proposal 30018.

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

Enclosure 1

Project Number	Title	RPA Actions	ESU(s) Affected	Statement of Potential Biological Benefit	Already ESA Req?	Biop?	Comments
199107800	Burlington Bottoms Wildlife Mitigation Project	0	Multiple	Potential rearing habitat for Columbia/Willamette downstream migrants and local tributaries through reconnection of floodplain backwater areas, although proponents never identify specific ESUs or effect.	No	No	Waterfowl, amphibian project. Use of watercontrol structures is problematic and requires careful consideration. Recreation of ponds may or may not be aligned with properly functioning conditions for this area. Diversity of approaches and more M&E - fish use and benefit - would be useful
199205900	Amazon Basin/Eugene Wetlands Phase Two	0	UWR CH	Potential for indirect WQ watershed enhancement	No	No	Downstream barriers Amazon Creek/Long Tom River w/ limited potential direct benefit yet good headwater scenario for downstream properly functioning conditions.
199206800	Implement Willamette Basin Mitigation Program	0	UWR CH, UWR SH, LCR CH, LCR SH	Potential to protect and enhance spawning and rearing habitat	No	No	Good outreach and way to diversify and leverage habitat protection by acquisition/easement and to restore/enhance these habitat. Good mechanism to identify, prioritize, and track projects.
199306000	Select Area Fishery Evaluation Project	0	LCR CH, LCSW COHO	None to RPA ESUs; some concern regarding straying into local streams with remnant chum and coho populations.	No	No	Close evaluation should precede expansion of the SAFE project to avoid any increased risk to listed fish. Project 31031 notes a high number of strays into local streams; would expansion exacerbate?
199405300	Middle Fork Willamette River Bull Trout Re-introduction and Basinwide Monitoring	0	Bull Trout			No	Not Reviewed
199607000	McKenzie River Focus Watershed Program Coordination and Habitat Restoration	0	UWR CH	Potential long term protection and enhancement of spawning/rearing PFC through outreach, education, planning benefits. Short term potential for riparian and in-stream habitat. Long term benefits in guiding more comprehensive restoration and watershed devel.	No	No	Substantial progress increasing local sensitivity and responsibility. Framework for realizing on-the-ground benefits in place. Can leverage site specific actions and influence local govt planning.
199902500	Sandy River Delta Riparian Forest, Wetlands, and Anadromous Estuary Restoration	152, 400	Multiple, especially ocean types	Possible benefit to growth and survival of ocean type salmonids	No	Yes	The proposal funding should focus on securing the dike removal aspect of the proposal first. The proposal is important in that it studies the type of habitat as rare and declining for chum. Fulfills Biop requirements in part.
200001200	Evaluate factors limiting Columbia River gorge chum salmon populations.	107, 180	COL Chum	This is an important element of studies in the Ives Island area to understand the effects of FCRPS flow management on productivity of the Bonneville chum population. Supports long-term habitat restoration of chum habitat and short and long-term survival of this ESU.	No	Yes	This is an important project that will result in a better understanding of FCRPS flow management on productivity of the Bonneville chum population. Fulfills Biop requirements in part.
200001400	Evaluate habitat use and population dynamics of lampreys in Cedar Creek	0				No	Not Reviewed

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

Enclosure 1

Project Number	Title	RPA Actions	ESU(s) Affected	Statement of Potential Biological Benefit	Already ESA Req?	Biop?	Comments
200001600	Protect and Enhance Tualatin River National Wildlife Refuge Additions	0	UWR CH, UWR SH	Potential rearing benefits through protection and enhancement of riparian areas.	No	No	Continued acquisition of land important for long-term and consistent with need for restoring PFC. Use of water control problematic. Continued work on refuge plan with explicit links to listed fish (Sec 7 consult) needed.
200105300	Re-introduction of Lower Columbia River Chum Salmon into Duncan Creek	156, 157	COL CHUM	M&E for the Duncan Creek restoration project, which already provided spawning habitat for both transplants salvaged from Ives Island and natural recolonizers during 2001. This proposal sets up an M&E program for measuring the success of the Duncan Creek project and for answering questions about the need for out/transplants versus natural recolonization, which may be important for future restoration efforts.	No	Yes	Important project that would move chum spawning from mainstem into tributary area not affected by flow and spill problems present at Ives Island. Fulfills Biop requirements in part.

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.