

PACIFIC FISHERY MANAGEMENT COUNCIL

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July 6, 2000

Ms. Susan Giannettino, Project Manager
Interior Columbia Basin Ecosystem Management Project
SDEIS
P.O. Box 420
Boise, ID 83701-0420

Dear Ms. Giannettino:

The Pacific Fishery Management Council (Council) appreciates the opportunity to comment in regard to the Interior Columbia Basin Supplemental Draft Environmental Impact Statement (SDEIS). We have previously (October 1997) commented on the Upper Columbia Basin DEIS and the Eastside DEIS and have several recommendations regarding this SDEIS.

The Council was created by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) in 1976 with the primary role of developing, monitoring, and revising management plans for fisheries conducted within federal waters off Washington, Oregon, and California. Subsequent Congressional amendments have added emphasis to the Council's role in fishery habitat protection. Amendments in 1996 mandated the Council to describe and designate Essential Fish Habitat (EFH) (Magnuson-Stevens Act, Section 303), and required the National Marine Fisheries Service and Council to make conservation recommendations regarding federal or state agency activities that may adversely affect designated EFH of those fisheries under the Council's authority (Magnuson-Stevens Act, Section 305). The Council is concerned with the potential impacts on coho and chinook salmon EFH that may result from the various alternatives presented in the SDEIS. The other species of great concern include steelhead, sockeye, sturgeon, and Pacific lamprey.

While the three alternatives are all expected to improve resource conditions, we note the preferred alternative differs only slightly from the other choices presented and provides few options to reverse broad scale habitat degradation trends. The preferred alternative derives its benefits over other approaches from additional habitat restoration programs. While such efforts may be commendable and result in some improvements in watershed conditions at a small scale, they are not likely to readily achieve the intended outcome for the vast majority of large, complex ecosystems considered in the Supplemental EIS given the resources the nation can commit to such an effort.

The Council recognizes the effort behind the Interior Columbia Basin Ecosystem Management Project (ICBEMP) process and notes it has considerable value as a conceptual framework for future management of public lands in the western United States. The document provides broad language/concepts with guidelines with reasonable advice (though it has few enforceable

standards). We also believe it can provide information that will help local managers understand the cumulative effects of their activities and provide consistent direction for making management decisions.

Notwithstanding, we have serious concerns about funding broad land-based ecological approaches without also implementing main stem corridor survival programs necessary to address serious resource problems that require more immediate attention. In this regard, the Council notes the federal government has concluded through the comprehensive ICBEMP process the status of interior stream-type chinook and steelhead will not improve unless the migration corridor is restored. The U.S. Forest Service and Bureau of Land Management state in the ICBEMP Questions and Answers for the SDEIS, March 2000, #7:

“In analyzing the effects of the SDEIS alternatives on anadromous fish populations we found that outcomes for anadromous fish above the dams in the Snake River and Upper Columbia River showed minor to no improvements as a result of high uncertainty associated with migrant survival.”

Recommendations:

Since it is apparent the actions called for in the SDEIS cannot mitigate for salmon mortality that is a result of the Federal Columbia River Power System (FCRPS), the Council recommends the following be implemented immediately:

1. Address migration corridor issues. (See the attached Council resolution on Snake River dams.)
2. Adopt the following recommendations in order to maintain areas of existing good fresh water habitat conditions and productivity:
 - a. Support protecting roadless areas as per the Roadless Area Conservation Proposed Rule. These areas would serve as the few remaining source areas for recovery.
 - b. Remove Riparian Conservation Area (RCAs) from the suitable timber and grazing land bases.
 - c. Identify, protect, and expand critical ecological connections (strong hold linkages) required to preserve and conserve A1 and A2 sub-watersheds. While the A1/A2 designation was to protect genetic integrity, the identified areas are too small and dispersed to be an adequate aquatic reserve network. In addition, they may be inadequate to provide a basis for maintaining the viability of aquatic species or provide for fishable populations.
3. Prevent further degradation of areas that are not properly functioning and target restoration efforts effectively:
 - a. Design and adopt management standards that do not allow further extraction activities in sub-basins that are not meeting EFH properly functioning conditions or Clean Water Act standards.
 - b. Target restoration activities so linkages can be created between aquatic reserve strongholds and expand the habitat base that can maintain aquatic species.
 - c. Minimize and avoid actions that have cumulative adverse effects.


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4. Assure assessments, monitoring, and implementation are keyed to obtaining properly functioning conditions in the basin:
 - a. Watershed Condition Indicators (WCI) should be based on a watershed assessment of properly functioning conditions consistent with the EFH portion (Appendix A) of *Amendment 14 to the Pacific Coast Salmon Plan*, Table A-10 (see attached).
 - b. Design and implement a comprehensive monitoring program by evolutionarily significant units that is designed to measure if such properly functioning conditions called for in Table A-10 are being met. Water quality and quantity should be monitored. In addition, life cycle monitoring that would quantify fresh water and ocean survival rates for multiple species should be included.
 - c. Provide an adaptive management structure that specifically deals with information gathered through the assessment and management process.

In summary, the Council believes the SDEIS outlined actions by themselves are not likely to have the beneficial impact that is needed across the landscape to reverse the decline and restore salmonids throughout the basin. The Council urges the agencies to focus their attention and finances on addressing migration corridor issues, protecting properly functioning areas from further disturbance and targeting restoration at those areas that are designed to expand and connect existing areas of productive habitat by addressing the limiting factors identified through watershed assessment.

Thank you for your attention.

Sincerely,



Jim Lone
Chair

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Enclosures

PACIFIC FISHERY MANAGEMENT COUNCIL

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RESOLUTION

WHEREAS, fishing cultures, livelihoods, economies, and recreation along the Pacific Coast from Alaska to California, and east to Idaho and Montana, have been dramatically affected by the precipitous decline and subsequent listing under the Endangered Species Act of anadromous fish in the Snake River Basin;

WHEREAS, rigorous scientific review by the Plan for Analyzing and Testing Hypotheses (PATH), has demonstrated much, if not most, of this decline is due to cumulative impacts of the Federal Columbia River Hydroelectric System, and, that retiring Ice Harbor, Lower Monumental, Little Goose, and Lower Granite dams on the lower Snake River and returning this river reach to a normative river condition is most likely to avoid extinction and recover Snake River salmon and steelhead stocks;

WHEREAS, wild Snake River salmon and steelhead are an irreplaceable genetic resource that continue to play a vital ecological role even at their currently depressed levels. If these runs are allowed to vanish, the foundation of the interior northwest's ecosystems will be severely undermined.

WHEREAS, extinction will prove ever more costly, and recovery will restore these fish to their rightful place in the cultures, economies, and hearts of Pacific Northwest peoples;

THEREFORE LET IT BE RESOLVED, that the Pacific Fishery Management Council finds the extinction of wild Snake River salmon unacceptable, and recommends implementation of the measures deemed by scientific analysis to recover wild anadromous fish in the Snake River Basin to sustainable fisheries levels. The Council recommends consideration and mitigation of negative impacts of the selected recovery option on affected individuals and their communities.

PFMC
07/15/99

TABLE A-10. Habitat objectives and indicators. The ranges of criteria presented here are generally applicable, but not absolute, some watersheds may have unique geology, geomorphology, hydrology, and other conditions that may not permit achieving the target habitat conditions. Target conditions can be established on a regional or watershed (USGS 5th Field) basis as needed to account for those factors ("please see footnote). (Page 1 of 3)

HABITAT ELEMENT	INDICATORS	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
Water Quality:	Temperature	50-57°F ^{a/}	57-60°F (spawning) 57-64°F (migration & rearing) ^{b/}	> 60°F (spawning) > 64°F (migration & rearing) ^{b/}
	Sediment/Turbidity	<12% fines (<0.85mm) in gravel, ^{c/} turbidity low	12-17% (west-side), ^{c/} 12-20% (east-side), ^{b/} turbidity moderate	> 17% (west-side), ^{c/} >20% (east side) fines at surface of depth in spawning habitat, turbidity high
	Chemical Contamination/ Nutrients	low levels of chemical contamination from agricultural, industrial, and other sources, no excess nutrients, no CWA 303d designated reaches	moderate levels of chemical contamination from agricultural, industrial and other sources, some excess nutrients, one CWA 303d designated reach	high levels of chemical contamination from agricultural, industrial, and other sources; high levels of excess nutrients, more than one CWA 303d designated reach
Habitat Access:	Physical Barriers	any man-made barriers present in watershed allow upstream and downstream juvenile and adult fish passage at all flows	any man-made barriers present in watershed do not allow upstream and/or downstream fish passage at base/low flows	any man-made barriers present in watershed do not allow upstream and/or downstream fish passage at a range of flows
Stream Habitat Elements:	Substrate	dominant substrate is gravel or cobble (interstitial spaces clear), or embeddedness <20%	gravel and cobble is subdominant, or if dominant, embeddedness 20-30%	bedrock, sand, silt or small gravel dominant, or if gravel and cobble dominant, embeddedness >30%
	Large Woody Debris Quantity of Key Pieces	Coast: >80 pieces/mile >24" diameter >50 ft. length; East-side: >20 pieces/mile >12" diameter >35 ft. length ^{b/} , and adequate sources of woody debris recruitment in riparian areas.	currently meets standards for properly functioning, but lacks potential sources from riparian areas of woody debris recruitment to maintain that standard	does not meet standards for properly functioning and lacks potential large woody debris recruitment
	Pool Frequency channel width # pools/mile ^{f/}	meets pool frequency standards (left) and large woody debris recruitment standards for properly functioning habitat (above)	meets pool frequency standards but large woody debris recruitment inadequate to maintain pools over time	does not meet pool frequency standards
	5 feet	184		
	10 "	96		
	15 "	70		
	20 "	56		
	25 "	47		
	50 "	26		
	75 "	23		
	100 "	18		
	Pool Quality	pools > 1 m deep (holding pools) with good cover and cool water, ^{c/} minor reduction of pool volume by fine sediment	few deeper pools (> 1 meter) and present or inadequate cover/temperature, moderate reduction of pool volume by fine sediment	no deep pools (>1 meter) and inadequate cover/temperature major reduction of pool volume by fine sediment
	Off-Channel Habitat	backwaters with cover, and low energy off-channel areas (ponds, oxbows, etc.) ^{c/}	some backwaters and high energy side channels	few or no backwaters, no off-channel ponds
	Refugia (important remnant habitat for sensitive aquatic species)	habitat refugia exist, and are adequately buffered (e.g., by intact riparian reserves); existing refugia are sufficient in size, number and connectivity to maintain viable populations or sub- populations ^{b/}	habitat refugia exist, but are not adequately buffered (e.g., by intact riparian reserves); existing refugia are insufficient in size, number and connectivity to maintain viable populations or sub-populations ^{b/}	adequate habitat refugia do not exist. ^{b/}

TABLE A-10. Habitat objectives and indicators. The ranges of criteria presented here are generally applicable, but not absolute, some watersheds may have unique geology, geomorphology, hydrology, and other conditions that may not permit achieving the target habitat conditions. Target conditions can be established on a regional or watershed (USGS 5th Field) basis as needed to account for those factors (*please see footnote). (Page 2 of 3)

HABITAT ELEMENT	INDICATORS	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
Channel Condition & Dynamics:	Width/Depth Ratio	<10 ^{b/c/e}	>10	>10
	Streambank Condition	>90% stable; i.e., on average, less than 10% of banks are actively eroding	80-90% not eroding	<80% not eroding
	Floodplain Connectivity	off-channel areas are frequently hydrologically linked to main channel; overbank flows occur and maintain wetland functions, riparian vegetation and succession	reduced linkage of wetland, floodplains and riparian areas to main channel; overbank flows are reduced relative to historic frequency, as evidenced by moderate degradation of wetland function, riparian vegetation/succession	severe reduction in hydrologic connectivity between off-channel, wetland, floodplain and riparian areas; wetland extent drastically reduced, riparian vegetation/succession altered significantly, and channel degradation apparent
Flow/hydrology:	Change in Peak/Base Flows	watershed hydrograph indicates peak flow, base flow and flow timing characteristics comparable to an undisturbed watershed of similar size, geology and geography	some evidence of altered peak flow, baseflow and/or flow timing relative to an undisturbed watershed of similar size, geology and geography.	pronounced changes in peak flow, baseflow and/or flow timing relative to an undisturbed watershed of similar size, geology and geography
	Increase in Drainage Network	zero or minimum increases in drainage network density from roads ^{d/f}	moderate increases in drainage network density from roads (e.g., about 5%) ^{h/j}	significant increases in drainage network density from roads (e.g., 20-25%) ^{h/j}
Watershed Conditions: Road Density & Location	Disturbance History	<2 mi/mi ² , no valley bottom roads	2-3 mi/mi ² , some valley bottom roads	>3 mi/mi ² , many valley bottom roads
		<15% ECA ^{**} (entire watershed) with no concentration of disturbance in unstable or potentially unstable areas, and/or refugia, and/or riparian area; and for NWFP area (except AMAs ^{**}), ≥15% retention of LSOG in watershed ^k	<15% ECA ^{**} (entire watershed), but disturbance concentrated in unstable or potentially unstable areas, and/or refugia, and/or riparian area; and for NWFP area (except AMAs ^{**}), ≥15% retention of LSOG in watershed	>15% ECA ^{**} (entire watershed) and disturbance concentrated in unstable or potentially unstable areas, and/or refugia, and/or riparian area; does not meet NWFP standard for LSOG retention
	Riparian Reserves	the riparian reserve system provides adequate shade, large woody debris recruitment, and habitat protection and connectivity in all subwatersheds, and includes known refugia for sensitive aquatic species (>80% intact) and/or for grazing effects: percent similarity of riparian vegetation to the potential natural community/ composition >50% ^v	moderate loss of connectivity or function (shade, LWD recruitment, etc.) of riparian reserve system, or incomplete protection of habitats and refugia for sensitive aquatic species (~70-80% intact), and/or for grazing effects: percent similarity of riparian vegetation to the potential natural community/ composition 25-50% or better	riparian reserve system is fragmented, poorly connected, or provides inadequate protection of habitats and refugia for sensitive aquatic species (<70% intact), and/or for grazing effects: percent similarity of riparian vegetation to the potential natural community/ composition <25% ^v
Estuarine Conditions:	Habitat Quantity/Quality	the estuarine system provides for adequate, prey production, cover, and habitat complexity, for both smolts and returning adults	moderate loss of prey production, cover, and habitat complexity	gross loss of prey production, cover, and habitat complexity
	Aerial Extent	estuary provides for most (i.e., greater than 80% intact) of its historical areal extent and diversity of shallow water habitat types including vegetated wetlands and marshes, tidal channels, submerged aquatic vegetation, tidal flats, and large woody debris	50-80% of pre-modification area or volume and diversity of habitats	<50% of pre-modification area or volume; low diversity of habitats
	Hydrologic Conditions/ Sediment/ Nutrient Input	fresh water inflow and other hydrologic circulation patterns and sediment and nutrient inputs are similar to historic conditions	Moderate interruption of estuarine circulation and nutrient and sediment delivery	Gross interruption of estuarine circulation and nutrient and sediment delivery

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HABITAT ELEMENT	INDICATORS	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
Estuarine Water Quality	Dissolved Oxygen, Temperature, Nutrients, Chemical Contamination Sediments	water quality standards for aquatic life protection met	water quality standards are not met intermittently when salmon are present	water quality standards are consistently not met when salmon are present
		sediments have low levels of chemical contamination, especially of persistent aromatic hydrocarbons, heavy metals, or other compounds known to bio-accumulate	sediments have moderate levels of chemical contaminants	sediments have high levels of chemical contaminants
	Exotic Species That are Non-indigenous Aquatic Nuisance Species	exotic species that are non-indigenous and aquatic nuisance species are at low and decreasing levels and not interfering with estuarine system functions	sustained presence of multiple exotic species that are nonindigenous and aquatic nuisance species in significant abundance	predominance of exotic species that are nonindigenous and aquatic nuisance species, low abundance of many native species with some low or extirpated.

* This table is adapted from an August 1996 NMFS report entitled *Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale*. Since this table was designed to be applied to a wide range of environmental conditions, there will be circumstances where the ranges of numerics or descriptions in the table do not apply to a specific watershed or basin. In such instances, more appropriate biological values for the target habitat objectives should be established on a watershed-specific basis. Target conditions to account for specific conditions in various areas have been developed, including, but not limited to: Oregon Coast Province, Southwest Province Tye Sandstone, Western Cascades Physiographic Region, High Cascades Physiographic Region, Klamath Province/Siskiyou Mountains.

** ECA= Equivalent Clear-Cut Area; AMA = Adaptive Management Area

- a/ Bjornn, T. and D. Reiser. 1991. Habitat Requirements of Salmonids in Streams. American Fisheries Society Special Publication 19:83-138. Meehan, W.R., ed.
- b/ Biological Opinion on Land and Resource Management Plans for the: Boise, Challis, Nez Perce, Payette, Salmon, Sawtooth, Umatilla, and Wallowa-Whitman National Forests. March 1, 1995.
- c/ Washington Timber/Fish Wildlife Cooperative Monitoring Evaluation and Research Committee, 1993. Watershed Analysis Manual (Version 2.0). Washington Department of Natural Resources.
- d/ A Federal Agency Guide for Pilot Watershed Analysis (Version 1.2), 1994.
- e/ NMFS Biological Opinion on Implementation of Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (PACFISH).
- f/ USDA Forest Service, 1994. § 7 Fish Habitat Monitoring Protocol for the Upper Columbia River Basin.
- g/ Frissell, C.A., Liss, W.J., and David Bayles, 1993. An Integrated Biophysical Strategy for Ecological Restoration of Large Watersheds. Proceedings from the Symposium on Changing Roles in Water Resources Management and Policy, June 27-30, 1993 (American Water Resources Association), p. 449-456.
- h/ Wemple, B.C., 1994. Hydrologic Integration of Forest Roads with Stream Networks in Two Basins, Western Cascades, Oregon. M.S. Thesis, Geosciences Department, Oregon State University.
- i/ e.g., see Elk River Watershed Analysis Report, 1995. Siskiyou National Forest, Oregon.
- j/ U.S. Department of Agriculture (USDA) Forest Service, 1993. Determining the Risk of Cumulative Watershed Effects Resulting from Multiple Activities.
- k/ Northwest Forest Plan, 1994. Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. USDA Forest Service and U.S. Department of Industry (USD) Bureau of Land Management.
- l/ Winward, A.H., 1989 Ecological Status of Vegetation as a base for Multiple Product Management. Abstracts 42nd annual meeting, Society for Range Management, Billings, Montana, Denver, Colorado: Society for Range Management: p. 277.

