Northwest Power and Conservation Council

January 9th, 2007

MEMORANDUM

TO: Council

FROM: Steve Waste, Manager for Program Analysis and Evaluation
Peter Paquet, Manager for Wildlife and Resident Fish

SUBJECT: Update on status of fish and wildlife population data

PURPOSE:

This memo reports on gaps in data for program evaluation by:

- reporting the current availability of population abundance data for focal species of subbasin plans
- identifying how much of those data are available through StreamNet
- reporting funding sources for population abundance data projects

DISCUSSION:

Availability of Population Abundance Data

Last month staff reported the preliminary results of a gap analysis characterizing the availability of population abundance data for Fish and Wildlife Program projects. As a follow up, this memo provides summary statistics and examples of these gaps. In Table 1, a majority of program projects address focal species for which abundance data are being collected. (The numbers in the cells represent the number of projects addressing a focal species within that subbasin.) This finding is most evident in the right half of the table where the largest number of projects occurs.

Coverage and Gaps for Anadromous Fish – The information in Table 1 indicates that the availability of population abundance data for anadromous fish is almost complete. A key gap is Lower Columbia River ESU Coho, which are identified as focal species in 13 subbasins. Data are being collected in eight of these subbasins, two of which hosts a single Fish and Wildlife program project. Three program projects are underway in two subbasins where, apparently, no data are currently being collected. We are reviewing those projects to determine if they are funded to do such monitoring.

Coverage and Gaps for Resident Fish - For resident fish there are generally more gaps than coverage, as indicated by the majority of red cells in the lower half of the table addressing resident fish. A key gap for resident fish is Redband Trout which are identified as a focal species in 15 subbasins. Data are being collected in three of these subbasins with Fish and Wildlife program projects. Although seven projects are underway in five of the other subbasins, either no data or only snapshot data appears to be collected. We are verifying these gaps as well.

One exception is bull trout, for which good coverage is in place. Bull trout are identified as a focal species in 34 subbasins. Data are being collected in 22 of these subbasins, six of which host Fish and Wildlife program projects. Three program projects are underway in three other subbasins, where either snap shot or no data are currently being collected.

Coverage and Gaps for Wildlife - The population abundance of wildlife populations is generally not being monitored systematically at this time, nor does Bonneville support increasing the monitoring element of the wildlife projects. Thus, the future monitoring of wildlife response to acquisitions remains to be resolved. However, staff is working with regional wildlife managers to examine the potential for using the recently developed state "Comprehensive Fish and Wildlife Conservation Strategies" as a mechanism for monitoring wildlife populations. Congress asked the states to develop these plans and they have recently been completed and adopted by the four states. These plans examine the health of wildlife populations and prescribe actions to conserve wildlife and associated habitat and are required in order for the states to continue to receive federal State Wildlife Grant funds. As part of these plans, each of the states is developing a monitoring component that will focus on specific ecoregions and selected focal species. Staff is working with the wildlife managers to explore the possibility of using these monitoring programs as the basis for monitoring wildlife populations addressed through Fish and Wildlife Program projects.

Discussion

How important are these missing data? Data gaps where we have a significant number of projects should be resolved. It should be a lesser priority to collect population abundance data where there are focal species but currently no program projects. For some focal species, such as lamprey, the collection of abundance and distribution information may be important for establishing a baseline, even if projects are not immediately anticipated.

How much of the data are being transmitted to StreamNet?

In order to determine how many monitoring projects <u>inside</u> and <u>outside</u> of the Fish and Wildlife Program are currently transmitting data to StreamNet, the status reports were checked for each subbasin to determine for each focal species whether or not:

- abundance data for that focal species is reported in the *Status of the Resource Report*
- abundance data for that focal species is being reported to StreamNet
- the funding for the project is from outside the Program

In Table 1 the results are displayed by the color coding as follows:

- Green = abundance data reported on focal species and available on StreamNet
- Yellow = abundance data but not available on StreamNet
- Brown = snapshot data only
- Red = no abundance data available
- Black = no data collected because the species is extirpated

Number of program projects that have data for the targeted species - *The* assessment of program gaps depicted in Table 1 found that:

- 164 = the number of Fish and Wildlife Program projects addressing a focal species for which there is a status report in the *Status of the Resource Report* and the data are reported to StreamNet (total of numbers within green cells)

- 78 = the number of Fish and Wildlife Program projects addressing a focal species for which there is a status report in the *Status of the Resource Report* and the data are not reported to StreamNet (total of numbers within yellow cells)

- 17 = the number of Fish and Wildlife Program projects targeting species for which no abundance data are currently being collected (total of numbers within red cells)

- 6 = the number of Fish and Wildlife Program projects for which only snapshot data are available (total of numbers within brown cells)

Discussion

StreamNet confirmed that tribal data generally resides with the tribes and is not transmitted to StreamNet because of a lack of resources. How important are these missing data? If these data were provided to StreamNet, it might fill in some of the apparent gaps, thereby narrowing the set of actual gaps. The resolution of actual gaps should precede determination of priorities for filling remaining gaps. Clearly, the practical application of priority indicators will require the institutional arrangements necessary to ensure the flow of relevant data from field projects, to Pisces, to StreamNet.

Funding Sources - At the November Council meeting the Columbia Basin Fish and Wildlife Authority provided summary tables of information on funding sources and methods of population abundance data collection for three provinces. Since then, the number of funding sources for all projects collecting abundance data in the Columbia River Basin has been reported in the summary report for the *Status of the Resource Report* as follows:

- 37 or 22% are from the Fish and Wildlife Program
- 42 or 25% cost share between the Fish and Wildlife Program and other sources
- 91 or 53% are from other sources (Federal, State, Tribes, utilities)

KEY

= Abundance Data Reported on Focal Species by SOR and Available on StreamNet

= Abundance Data Reported but not Available on StreamNet

= Snapshot Data Only

= No Abundance Data Available

= No data collected because species extirpated

	Big White Salmon	Bruneau	Burnt	Elochoman	Imnaha	Kalama	Lake Chelan	Lewis	Little White Salmon	Palouse	Weiser	Powder	Sandy	Snake Lower River	Washougal	None Selected	Blackfoot	Coeur d'Alene	Columbia Gorge
Number of Focal Species Per Subbasin (as identified in Subbasin Plans)	5	5	1	5	5	7	3	8	2	0	3	2	3	1	6	0	0	3	3
Anadromous: Chinook: All Populations																			
Anadromous: Chinook: Lower Columbia River ESU (threatened)																			
Anadromous: Chinook: Mid-Columbia River Spring ESU																			
Anadromous: Chinook: Snake River Fall ESU (threatened)																			
Anadromous: Chinook: Snake River Spring/Summer ESU (threatened)																			
Anadromous: Chinook: Upper Columbia River Spring ESU (endangered)																			
Anadromous: Chinook: Upper Columbia River Summer/Fall ESU																			
Anadromous: Chinook: Upper Willamette River ESU (threatened)																			
Anadromous: Chum: Columbia River ESU (threatened)																			
Anadromous: Coho: Lower Columbia River ESU (proposed threatened)																			
Anadromous: Coho: Unspecified Population																			
Anadromous: Pacific Lamprey																			
Anadromous: Sockeye: Okanogan River ESU																			
Anadromous: Sockeye: Snake River ESU (endangered)																			
Anadromous: Steelhead: All Populations																			
Anadromous: Steelhead: Lower Columbia River ESU (threatened)																			
Anadromous: Steelhead: Middle Columbia River ESU (threatened)																			
Anadromous: Steelhead: Snake River ESU (threatened)																			
Anadromous: Steelhead: Upper Columbia River ESU (endangered)																			
Anadromous: Steelhead: Upper Willamette River ESU (threatened)																			
Resident: Bull Trout																	1		
Resident: Burbot																			
Resident: Cutthroat Trout																			
Resident: Yellowstone Cutthroat Trout																			
Resident: Redband Trout																			
Resident: Kokanee																			
Resident: Largemouth Bass																			
Resident: Mountain Whitefish																			
Resident: Rainbow Trout																			
Resident: Westslope Cutthroat																		1	
Resident: White Sturgeon: All Populations																			
Resident: White Sturgeon: Kootenai River DPS (endangered)																			
Resident: White Sturgeon: Upper Columbia River Population																			
Wildlife: All Wildlife																			
Resident: All Resident Fish																1			
Resident: Other Resident																			
All Species																			
Anadromous: All Anadromous Fish																			
Anadromous: All Anadromous Salmonids																			
Anadromous: Anadromous Fish																			1
Anadromous: Other Anadromous																			
Total F&W Program Projects Per Subbasin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1

	Crab	Sanpoil	Bitterroot	Columbia Lower Mid	Cowlitz	Fifteenmile	Grays	Snake Headwaters	Snake Hells Canyon	Boise	Entiat	Columbia Lower	Payette	Columbia Upper Mid	Snake Upper	Snake Upper Middle	Owyhee	Columbia Estuary	Spokane	Wind
Number of Focal Species Per Subbasin (as identified in Subbasin Plans)	11	3	0	3	6	5	5	8	7	3	7	7	3	3	3	9	1	9	6	5
Anadromous: Chinook: All Populations																		1		
Anadromous: Chinook: Lower Columbia River ESU (threatened)																				1
Anadromous: Chinook: Mid-Columbia River Spring ESU																				
Anadromous: Chinook: Snake River Fall ESU (threatened)									2											
Anadromous: Chinook: Snake River Spring/Summer ESU (threatened)																				
Anadromous: Chinook: Upper Columbia River Spring ESU (endangered)											1			1						
Anadromous: Chinook: Upper Columbia River Summer/Fall ESU				1																
Anadromous: Chinook: Upper Willamette River ESU (threatened)																				
Anadromous: Chum: Columbia River ESU (threatened)							2													
Anadromous: Coho: Lower Columbia River ESU (proposed threatened)					1							2						1		1
Anadromous: Coho: Unspecified Population																				
Anadromous: Pacific Lamprey																				
Anadromous: Sockeye: Okanogan River ESU																				
Anadromous: Sockeye: Snake River ESU (endangered)																				
Anadromous: Steelhead: All Populations																				
Anadromous: Steelhead: Lower Columbia River ESU (threatened)					1															2
Anadromous: Steelhead: Middle Columbia River ESU (threatened)				1		2														
Anadromous: Steelhead: Snake River ESU (threatened)																				
Anadromous: Steelhead: Upper Columbia River ESU (endangered)											1			1						
Anadromous: Steelhead: Upper Willamette River ESU (threatened)																				
Resident: Bull Trout			1							1			1			1				
Resident: Burbot																				
Resident: Cutthroat Trout																				
Resident: Yellowstone Cutthroat Trout								2							1	1				
Resident: Redband Trout										1			1			1	1		2	
Resident: Kokanee																				
Resident: Largemouth Bass																				
Resident: Mountain Whitefish													1							
Resident: Rainbow Trout		1															1			
Resident: Westslope Cutthroat			1																	
Resident: White Sturgeon: All Populations																				
Resident: White Sturgeon: Kootenai River DPS (endangered)																				
Resident: White Sturgeon: Upper Columbia River Population																				
Wildlife: All Wildlife	1									1		1		1	2		2		2	
Resident: All Resident Fish																				
Resident: Other Resident													1							
All Species																				
Anadromous: All Anadromous Fish											1							2		
Anadromous: All Anadromous Salmonids																				
Anadromous: Anadromous Fish																				
Anadromous: Other Anadromous																				
Total F&W Program Projects Per Subbasin	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4

	Asotin	Tucannon	Deschutes	Wenatchee	Methow	Malheur	Klickitat	Okanogan	Willamette	Hood	Flathead	Pend Oreille	John Day	Walla Walla	Columbia Upper	Salmon	Kootenai	Grande Ronde	Umatilla	Yakima	Clearwater	Systemwide	Total F&W Prog. Projects Per Focal Species
Number of Focal Species Per Subbasin (as identified in Subbasin Plans)	3	4	7	7	6	3	6	6	7	7	2	5	5	7	6	5	6	3	6	6	6		
Anadromous: Chinook: All Populations							2							1					1			2	8
Anadromous: Chinook: Lower Columbia River ESU (threatened)										5												3	9
Anadromous: Chinook: Mid-Columbia River Spring ESU							1						5	4					5	4			17
Anadromous: Chinook: Snake River Fall ESU (threatened)		1																3			3	3	14
Anadromous: Chinook: Snake River Spring/Summer ESU (threatened)	1	2														11		12			4	4	37
Anadromous: Chinook: Upper Columbia River Spring ESU (endangered)				3	3			2														1	11
Anadromous: Chinook: Upper Columbia River Summer/Fall ESU								2														1	5
Anadromous: Chinook: Upper Willamette River ESU (threatened)									2													1	3
Anadromous: Chum: Columbia River ESU (threatened)																							5
Anadromous: Coho: Lower Columbia River ESU (proposed threatened)									1	1												2	9
Anadromous: Coho: Unspecified Population							2		1										1	2		1	7
Anadromous: Pacific Lamprey			1																		2		3
Anadromous: Sockeye: Okanogan River ESU								1														1	2
Anadromous: Sockeye: Snake River ESU (endangered)																3							3
Anadromous: Steelhead: All Populations																						3	3
Anadromous: Steelhead: Lower Columbia River ESU (threatened)										5												1	10
Anadromous: Steelhead: Middle Columbia River ESU (threatened)			3				2						8	6					8	9			39
Anadromous: Steelhead: Snake River ESU (threatened)	3	2														3		4			13	1	30
Anadromous: Steelhead: Upper Columbia River ESU (endangered)				3	3			3														1	12
Anadromous: Steelhead: Upper Willamette River ESU (threatened)									1														1
Resident: Bull Trout			1			2					5	6					2						21
Resident: Burbot																	3						3
Resident: Cutthroat Trout												1											1
Resident: Yellowstone Cutthroat Trout																							4
Resident: Redband Trout						3									2		3						14
Resident: Kokanee												1			6		3				1		11
Resident: Largemouth Bass												1											1
Resident: Mountain Whitefish											1						1						3
Resident: Rainbow Trout															4						1		7
Resident: Westslope Cutthroat											6	2					2						12
Resident: White Sturgeon: All Populations																							1
Resident: White Sturgeon: Kootenai River DPS (endangered)																	4						4
Resident: White Sturgeon: Upper Columbia River Population															3								3
Wildlife: All Wildlife	1		1			2		2	5			1	1	1	2		1	2	2	2		1	35
Resident: All Resident Fish																							
Resident: Other Resident											1						1						3
All Species																						1	1
Anadromous: All Anadromous Fish					1								1						2	1	1	3	13
Anadromous: All Anadromous Salmonids							1							2		1			1	3		13	23
Anadromous: Anadromous Fish																1			1				3
Anadromous: Other Anadromous																						1	1
Total F&W Program Projects Per Subbasin	5	5	6	6	7	7	8	10	10	11	13	13	15	15	17	19	19	21	21	21	25	48	