

NATIONAL MARINE FISHERIES SERVICE REPORT
UPDATE ON SALMON FISHERY MANAGEMENT PLAN AMENDMENT 16

The Council delayed further action on Amendment 16 to the Salmon FMP until the June 2011 meeting. The National Marine Fisheries Service (NMFS) underscores the need to be prepared to take final action in June to meet the requirements for implementation by the end of 2011.

There is one issue related to stock classification of far-north-migrating Chinook stocks that was discussed at the November 2010 meeting, but left unresolved as we sought additional information. Since then, NMFS Northwest Region staff has further investigated the ocean distribution and catch information for Washington coastal spring/summer and fall Chinook, Oregon mid/north-coastal spring and fall Chinook, and mid-Columbia spring Chinook for the purpose of establishing a far-north-migrating Chinook complex (see attached report). NMFS is bringing this to the Council's attention now so that we can amend the draft Environmental Assessment (EA) to reflect findings from the new analysis.

The EA originally proposed developing a far-north-migrating spring/summer stock complex composed of Washington and Oregon coastal spring/summer stocks and Mid-Columbia River spring stocks. Based on the new analysis it now appears that a more logical organization would be for a complex consisting of Washington coastal spring/summer and fall stocks and Oregon mid/north-coastal spring and fall stocks (except Umpqua spring Chinook). Based on coded-wire-tag (CWT) recoveries, these stocks have similar ocean distribution and harvest patterns, including the majority of catch occurring in Canadian waters. While not identified in the Pacific Salmon Treaty (PST), the spring stocks appear to have relative harvest rates in Canadian and Council area fisheries comparable to fall stocks from the same regions, which are PST stocks. Grays Harbor, Queets, Hoh, Quillayute, and Hoko fall Chinook could serve as indicator stocks for this far-north-migrating coastal (FNMC) complex since there are FMP conservation objectives and preseason forecasts available for these stocks. All the indicator stocks are PST stocks and, since measures required under the PST would provide similar protection for the spring stocks in ocean waters, the international exception to specifying acceptable biological catch/annual catch limit/accountability measure framework could be applied to the FNMC complex.

The recent analysis indicates that mid-Columbia spring Chinook are rarely caught in ocean fisheries (see attached report). Mid-Columbia spring Chinook could be classified as a complex, but that would require developing conservation objectives for one or more of the stocks in the complex. Alternatively, mid-Columbia spring Chinook could be removed from the FMP or designated as an Ecosystem Component. A consequence of either of the latter two options is that Essential Fish Habitat would no longer be designated for the stock and there would be some loss of related habitat protection. NMFS has initiated discussions with state and tribal managers regarding these consequences, but suggests that the range of alternatives in the EA be amended to reflect the preceding recommendations.

November 15, 2010

To: Peter Dygert

From: Larrie LaVoy

Subject: CWT recovery distribution for WA coast, OR coast and Mid-Columbia spring run Chinook.

The tables below show distribution of estimated recoveries of CWTs from Chinook originating from WA and OR coast and Mid-Columbia hatchery facilities and identified in PSMFC-RMIS as “spring run”. The WA coast tag groups were almost exclusively from the Quillayute River and Sol Duc rivers except for one small release group from the Hoh River. The OR coast tag groups were primarily from the Trask and Nestucca rivers in the north, to the Umpqua and Rogue-Cole Rivers in the south. Tag groups from the Yakima basin were used to represent Mid-Columbia spring Chinook.

The tables contain estimated CWTs landed in fisheries and escapement from expansion of observed recoveries by a mark sampling rate. The percent distribution into fisheries and escapement should not be used to calculate an exploitation rate for the stock for three primary reasons: 1) recoveries only represent landed fish and not total fishery related mortalities, 2) recoveries are not adjusted for “adult equivalency” as is the normal procedure for calculating exploitation rates, and 3) recoveries especially in terminal fisheries and escapement areas is oftentimes inadequate or lacks expansion for sampling rates. Commonly, natural spawning areas are not adequately sampled and/or sampling rate expansions are not applied to the observed recoveries and will show few escapement recoveries relative to the number of fishery recoveries. In most cases, using CWT recovery data directly from RMIS as-is without manually adjusting some fisheries and most escapements will most likely result in overestimating the exploitation rates. Before undertaking a normal exploitation rate analysis, these tag groups would require recovery-year specific scrutiny of the observed-to-estimated expansions (especially in the terminal areas) and the status of whether likely recovery locations were even sampled.

The impacts in Council fisheries can be compared to those in other areas to get a relative measure of fishery related mortality. As expected, impacts in Council fisheries are much lower compared to northern fisheries in Alaska and Canada for WA coast spring Chinook. For northern OR coast spring Chinook, a higher portion is taken in Council fisheries but still less than in northern fisheries. Spring Chinook from the Umpqua and Rogue are taken primarily in Council fisheries south of Cape Falcon. Mid-Columbia spring Chinook are rarely caught in ocean fisheries anywhere.

WA Coast Combined																	Fishery	
Quillayute-Sol Duc- Hoh	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2007	2008	2009	Total		Distribution
AK	3	11	121	52	43	79	54	23	15	6	12	9				428	7%	10%
BC	17	220	597	261	322	53	61	53	8	5		5		9	9	1620	28%	39%
Council	3	23	134	57	77	17	2		5	10	7			3	5	343	6%	8%
High Seas	2	2	7													11	0%	0%
WA Inside		94	98	104	140	46	3	12			16			1		514	9%	12%
Term. Fishery	5	23	155	314	193	307	137	116	31							1281	22%	31%
Escapement a/		4	129	384	454	209	112	155	45	19	23					1534	27%	--
Total	30	377	1241	1172	1229	711	369	359	104	40	58	14		13	14	5731	100%	100%

a/ Escapement should be considered minimum value; spawning ground recoveries not expanded for sampling rates.

Trask and Nestucca																			Fishery		
Recovery Area	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total		Distribution
AK		6	14	15	38	47	28	9	30	18	89	48	69	54	59	26	9	9	568	13%	21%
BC		6	8	2	2	5		7	14	11	92	162	255	171	68	40	23		866	20%	33%
Council-NoF		7	3			2		9	7	14	76	55	69	33	20	25	7	4	331	8%	12%
Council-SoF			52	59	46	16	39	28	12	53	105	80	99	79	38	17	3		726	17%	27%
High Seas					6			4			0	1			13				24	1%	1%
Terminal Spt		2	6	10	10	20	11	12	6	9	5		11	6	8	6	8	4	134	3%	5%
Escapement a/	1	6	53	96	88	120	107	91	58	74	63	72	165	151	225	124	155		1649	38%	--
Total	1	27	136	182	190	210	185	160	127	179	430	418	668	494	431	238	205	17	4298	100%	100%

a/ Escapement should be considered a minimum value; no recoveries on spawning grounds before 2005 and samples thereafter imply 100% sampling rate.

Umpqua																				Fishery	
Recovery Area	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total		Distribution		
AK		2			9	9				3	2	7	7	4			43	1%	1%		
BC	13	4	2			2		14	18	17	18	17	16	44	7	9	181	6%	6%		
Council-NoF	6		2	2		2	17	9	30	44	34	21	16	32	22		237	8%	8%		
Council-SoF	25	60	82	181	135	66	50	160	360	272	440	318	71	6	65		2291	73%	78%		
High Seas	4	8	16		3			21	26	4	6	2			15	10	115	4%	4%		
Terminal Spt			2	1	6	5	18	28	1		6	1					68	2%	2%		
Escapement a/	2	16	14	14	24	13		30	39	3	6	12	3	14	13		203	6%	--		
Total	50	90	118	198	177	97	85	262	474	343	512	378	113	100	122	19	3138	100%	100%		

a/ Escapement should be considered a minimum value due to limited or no spawning ground sampling and few hatchery rack recoveries.

Rogue-Cole Rivers																				Fishery	
Recovery Area	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total		Distribution	
AK							17	26	5									48	0%	1%	
BC							5	5		5			6	2	4			27	0%	0%	
Council-NoF		2						11	2	7			12	1	3			38	0%	0%	
Council-SoF	5	265	777	857	694	121	99	204	346	224	756	1401	2037	433	49	143		8411	26%	96%	
High Seas		4	28	29		3			8	3	41	21	1	3				141	0%	2%	
Terminal Spt	1		1	23	25	7	6	23	10	3	1	2		1		2		105	0%	1%	
Escapement a/	47	337	278	4205	2406	2217	879	1298	1686	1706	2866	2870	1450	534	376	411	269	23835	73%	--	
Total	53	608	1084	5114	3125	2348	1006	1567	2057	1948	3664	4294	3506	974	432	556	269	32605	100%	100%	

a/ Escapement should be considered a minimum value: only hatchery rack recoveries except in 1997 and 2007-08 which also show spawning ground recoveries.

Yakima													Fishery
Recovery Area	2000	2001	2002	2003	2004	2005	2006	2007	Total				Distribution
Council	5									5	1%	1%	
High Seas	2								2	0%	0%		
Terminal	5	215	214	15	26	2	36	10	523	74%	99%		
Escapement	13	160	2		2				177	25%	--		
Total	20	380	216	15	28	2	36	10	707	100%	100%		