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STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
FISH PROGRAM – REGION 6

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August 26, 2009

To: Robert Woodard

From: Greg Lippert

Subject: 2009 Region 2 Estimated Summer Steelhead Escapement from 2009 Methow River basin spawning ground surveys and Escapement and disposition of the 2009 brood summer steelhead passing Wells Dam.

The attached are a draft table and appendices intended for submission to the Douglas Co. PUD in fulfillment of contractual obligations by Washington Department of Fish and Wildlife. These data are to be used in the annual report, "Monitoring and Evaluation of Wells and Methow Hatchery Programs in 2009". Publication of this report has been delayed for a month. Data include 2009 Wells dam steelhead counts, redd counts, and escapement estimates for the Methow and Okanogan Basins. The purpose of these tables is to incorporate data that has not been summarized yet into StreamNet to provide information on fisheries in a timely manner.

Attach: Tables

cc: Charlie Snow
Charles Frady

Table 8. Escapement and disposition of the 2009 brood summer steelhead passing Wells Dam. Hatchery ($N = 300$) and wild ($N = 75$) fish removed for broodstock at Wells Dam are not included in the escapement estimate above Wells Dam. Methow and Okanogan River escapements are based on radio-telemetry data (English et al. 2001, 2003), which account for 90.4% and 91.6% of the hatchery and wild escapement, respectively. Dam count includes passage from 15 June 2008 through 14 June 2009.

Area	Description (Variable)	Number
Wells Dam	Wells Dam fish count (A) (FPC)	9,702
	Estimated double counted fish (B)	163
	Estimated fallback fish (C)	448
	Adjusted Wells Dam fish count (D = A-B-C)	9,091
Above Wells Dam	Local Hatchery fish (E)	5,849
	Stray hatchery fish (F)	2,188
	Hatchery fish removed in fishery (G)	444
	Above Wells Hatchery run estimate (H = (E + F) - G)	7,593
	Wild fish (I)	1,054
	Wild fish removed in fishery (J)	5
	Above Wells Wild run estimate (K = I - J)	1,049
Okanogan Basin	Hatchery run escapement estimate (L = H * 0.324)	2,460
	Hatchery fish removed in fishery (M)	409
	Hatchery fish collected for broodstock (N)	3
	Wild run escapement estimate (O = K * 0.208)	218
	Wild fish removed in fishery (P)	4
	Wild fish collected for broodstock (Q)	10
	Maximum spawning escapement estimate (R = L-M-N+O-P-Q)	2,252
Methow Basin	Hatchery run escapement estimate (S = H * 0.580)	4,404
	Hatchery fish removed in fishery (T)	636
	Hatchery fish collected for broodstock (U)	8
	Wild run escapement estimate (V = K * 0.708)	743
	Wild fish removed in fishery (W)	11
	Wild fish collected for broodstock (X)	8
	Maximum spawning escapement estimate (Y = S-T-U+V-W-X)	4,484

Appendix L. Estimated escapement from 2009 Methow River basin spawning ground surveys. The total of local (L), within-basin (WB) strays, Winthrop stock (W), and out-of-basin (OB) strays are the sum total of expanded CWT recoveries. U = total number of hatchery fish unaccounted for through CWT and sample rate expansions.

Reach	Redds				Hatchery fish		Wild fish			Estimated		
	L	WB	Win	OB	U	Total	1.1	1.2	1.3	Total	escape ment	
M15	0	0	0	0	0	0	0	0	0	0	0	0
M14	11	0	13	26	0	0	39	0	19	0	19	58
M13	1	0	0	0	0	0	0	0	5	0	5	5
M12	10	7	8	14	0	3	32	0	21	0	21	53
M11	14	19	9	23	0	9	60	0	14	0	14	74
M10	44	248	94	329	64	85	206	0	25	3	28	234
M9		138		614	8	94		16		118		732
M8	11	62	23	66	0	23	174	4	2	0	6	58
M7					11				58			
M6					12				64			
M5,4	3	5	0	5	0	4	14	0	2	0	2	16
L2	9	23	23	0	0	0	46	0	0	23	23	48
L1					4				21			
EW5	0	0	0	0	0	0	0	0	0	0	0	0
EW4	3	13	13	13	0	1	40	0	0	13	13	16
EW3					7				37			
EW2,1	0	0	0	0	0	0	0	0	0	0	0	0
MH1	14	30	19	19	1	5	74	0	0	0	0	74
Susp1	9	7	0	28	0	6	41	0	7	0	7	48
WLF	5	5	17	5	0	0	27	0	0	0	0	27
WLF2												
WLF1	0	0	0	0	0	0	0	0	0	0	0	0
WN1	17	9	2	76	1	2	90	0	0	0	0	90
Methow total	323	428	221	604	66	138	1,457	12	189	55	256	1,713
C13	2	6	0	0	0	0	6	0	5	0	5	11
C12	10	11	0	0	0	21	32	10	32	0	42	53
C11					4				21			
C10	4	6	0	0	0	3	9	0	12	0	12	21
C9	0	0	0	0	0	0	0	0	0	0	0	0
C8	7	5	0	0	5	4	14	0	23	0	23	37
C7	11	20	0	0	0	9	29	0	19	10	29	58
C6	30	25	4	29	4	20	82	4	73	0	77	159
C5	14	23	11	11	0	3	48	4	22	0	26	74
C4	26	59	10	33	3	14	119	3	16	0	19	138
C3					0				0			
C2	29	55	29	19	0	23	126	0	28	0	28	154
C1	6	6	12	11	0	0	29	0	3	0	3	32
EM1	0	0	0	0	0	0	0	0	0	0	0	0
Chewuch total	143	216	66	103	12	97	494	21	233	10	264	758

T10-8	0	0	0	0	0	0	0	0	0	0	0	0
T7	5	49	0	5	5	13	72	10	19	0	29	27
T6				11					58			
T5				3					16			
T4	3	16	0	0	0	0	16	0	0	0	0	16
T3	1	6	0	0	0	1	7	0	0	3	3	5
T2				1					5			
T1	0	0	0	0	0	0	0	0	0	0	0	0
Twis	24	71	0	5	5	14	95	10	19	3	32	127
P												
total												
2009	490	715	287	712	83	249	2,046	43	441	68	552	2,598
total												

Monitoring and Evaluation Of Wells and Methow Hatchery Programs in 2009

Prepared for

Douglas County Public Utility District

and

Wells Habitat Conservation Plan

Hatchery Committee

by

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