2009-2010 Upper Columbia River Steelhead Fishery Summary

Prepared for NOAA Fisheries
Portland, Oregon

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Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501-1091

ABSTRACT

Washington Department of Fish and Wildlife (WDFW) implemented a selective recreational steelhead fishery in the upper Columbia River (UCR) during fall 2009 and winter 2010. The fishery was conducted as a conservation measure to reduce the proportion of hatchery origin steelhead on the spawning grounds.

Fishery areas included the main stem Columbia from Rock Island Dam to Chief Joseph Dam, and the Entiat, Icicle, Wenatchee, Methow, Okanogan, and Similkameen Rivers. Harvest regulations were enacted and provided for a mandatory retention of only adipose fin-clipped hatchery steelhead. Creel census activities were conducted to monitor the fishery and to estimate the fishery impacts to upper Columbia River steelhead as required by NOAA Fisheries Permit 1395. Enforcement monitoring occurred throughout the duration of the fishery from September 29, 2009 through March 31, 2010.

The steelhead run above Priest Rapids Dam was estimated to be 34,888 steelhead with a natural origin steelhead component of 5,682 fish. Natural origin fish escapement to the Wenatchee, Methow and Okanogan/Similkameen Rivers was estimated at 869, 1,683, and 447, respectively.

An estimated 29,461 anglers fished a total of 109,962 hours and caught 15,586 steelhead, of which 8,816 were adipose absent fish of hatchery origin, 4,500 were adipose present hatchery origin, and 2,270 were natural origin steelhead.

The UCR steelhead fishery was successful in removing 8,816 adipose absent steelhead from the spawning population.

Fishery impacts to natural origin steelhead from catch and release mortality included 17 Wenatchee River steelhead, 62 Methow River steelhead and 20 Okanogan/Similkameen River steelhead. There were an additional 17 natural origin impacts to steelhead located between Rock Island and Wells Dams. All natural origin steelhead impacts remained within Tier 1 for the Wenatchee and Tier 2 for the Methow/Okanogan based on guidelines set by NOAA Fisheries Permit 1395.

Enforcement monitoring during the fishery expended 700 hours contacting 977 anglers with 203 violations, including arrests, gear infractions, misdemeanors, and warnings.

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INTRODUCTION

Washington Department of Fish and Wildlife (WDFW) implemented a selective recreational steelhead fishery in the upper Columbia River (UCR) during fall 2009 and winter 2010. The fishery was implemented as a conservation measure to reduce the proportion of hatchery origin steelhead on the spawning grounds. Reducing the proportion of hatchery origin adults on the spawning grounds in years of over escapement is consistent with fishery actions described in NOAA Fisheries ESA Section 10 Permit 1395.

Based on projected steelhead run estimates and origins from Priest Rapids Dam and Wells Dam stock assessment sampling, the recreational fishery satisfied "Tier 1" for the Wenatchee system and "Tier 2" for the Methow, Okanogan and Similkameen systems, as defined in ESA Section 10 Permit 1395. Harvest regulations required single, barbless hooks and provided for a mandatory retention on adipose fin-clipped hatchery steelhead. Creel census activities were conducted to monitor the fishery and to estimate the fishery impacts to upper Columbia River steelhead. Enforcement monitoring occurred throughout the duration of the fisheries.

FISHERY AREAS AND SEASONS

1) Mainstem Columbia River, from Rock Island Dam to Wells Dam from September 29, 2009 through March 31, 2010

2) Mainstem Columbia River, from Wells Dam to 400 feet below Chief Joseph Dam September 29, 2009 through March 31, 2010

3) Wenatchee River, from the mouth to the sign 800 feet below the most downstream side of Tumwater Dam from September 29, 2009 through February 28, 2010

4) Icicle River, from the mouth to 500 feet downstream of the Leavenworth National Fish Hatchery Barrier Dam from September 29, 2009 through November 15, 2009

5) Entiat River, from the alternate Highway 97 Bridge near the mouth of the Entiat River to 800 feet downstream of the Entiat National Fish Hatchery outfall from September 29, 2009 through March 31, 2010

6) Methow River, from the Hwy. 97 Bridge in Pateros upstream to the second power line crossing, and from the first Hwy. 153 Bridge north of Pateros to the confluence with the Chewuch River in Winthrop from September 29, 2009 through March 31, 2010

7) Methow River, from the second power line crossing upstream of Pateros to the first Highway 153 Bridge from October 21, 2009 through March 31, 2010

8) Okanogan River, from the mouth upstream to Hwy 97 Bridge in Oroville from September 29, 2009 through March 31, 2010, except for two sections which closed March 15, 2010

9) Similkameen River, from the mouth to 400 feet below Enloe Dam from November 1, 2009 through March 31, 2010

METHODS

Run-Cycle Population Estimates

The 2009 - 2010 upper Columbia River steelhead run-cycle abundance and distribution to the various sub-basins upstream of Priest Rapids Dam (PRD) was estimated using the combined information from: steelhead stock assessment data collected at PRD; steelhead count by origin, pit tag return data collected at Rock Island, Rocky Reach, Wells and Tumwater dams, and 1999/2001steelhead radio telemetry data. Additionally, stock assessment data from Wells Dam was used to verify the PRD projected 2009-2010 run-cycle adult steelhead abundance and origin composition in areas above Wells Dam.

Creel Monitoring

Creel surveys were conducted to monitor the fishery and to estimate the fishery impacts to upper Columbia River steelhead. The survey used a two-stage non-uniform probability method of sampling similar to those used by (Malvestuto 1978), but as described in *Creel Information from Sport Fisheries in WDFW Methods Manual* (Hahn et. al.1993). Based on creel information collected, the total sport-catch, incidental catch, and harvest of all origins of steelhead was estimated.

Fishery Impacts to Natural Origin Steelhead

When the natural origin UCR steelhead run is predicted to exceed 1,300 fish at Priest Rapids and the total UCR steelhead run is predicted to exceed 9,550 steelhead, a fishery can be used to remove excess adipose fin clipped steelhead. To minimize impacts to natural origin steelhead, a three tiered system as outlined in Permit 1395 with NOAA Fisheries, is used to determine maximum allowable natural origin steelhead take during the fishery (Table 1).

Table 1. Three tiered system for determining natural origin impacts during the recreational fishery on steelhead in UCR tributaries above Rock Island Dam.

	Wenatchee River		Methow River		Okanogan River	
	NOR 1/	Impact 2/	NOR 1/	Impact 2/	NOR 1/	Impact 2/
Tier 1	600	2%	500	2%	120	5%
Tier 2	1,700	4%	1,600	4%	120	7%
Tier 3	2,500	6%	2,500	6%	600	10%

1/ Estimated natural origin escapement to tributaries
2/ Maximum allowable take on natural origin fish

RESULTS

Run-Cycle Population Estimates

Based on Priest Rapids Dam and Wells Dam stock assessment data as of September 21, 2009, the run cycle adult escapement above Priest Rapids Dam was projected at 34,888 steelhead, including 5,682 natural origin fish (Table 2).

Table 2. Run estimate and projected sub-basin escapement based on Priest Rapids Dam sampling for 2009 upper Columbia River steelhead September 21, 2009

River System	Estimate at Priest Rapids 1/		Projected escapement 2/	
	Total run	Natural origin 2/	Total run	Natural origin
Wenatchee	2,881	981	2,778	869
Methow	20,301	1,825	18,997	1,683
Okanogan and Similkameen	5,397	485	5,050	447
Columbia from Rock Island to Wells Dam, including Entiat River	6,309	2,391	N/A	N/A
Total	34,888	5,682	26,825	2,999

1/ Based on Tumwater, Priest Rapids, and Wells dams passage data
2/ Escapement after broodstock removal and over winter mortality

Creel Monitoring

Mainstem Columbia River (Rock Island Dam to Wells Dam)

An estimated 5,576 anglers fished 18,434 hours and caught a total of 882 steelhead, of which 368 were adipose-absent, 276 were adipose present hatchery, and 238 were natural origin steelhead (Table 3).

Table 3. Estimated summary of the 2009-2010 UCR steelhead fishery in the Columbia River between Rock Island Dam and Wells Dam

	Oct	Nov	Dec	Jan	Feb	Mar	Total
Effort Hours	5,977	4,619	3,527	1,540	504	2,267	18,434
Anglers	1,586	1,322	1,153	397	196	922	5,576
Ad-absent steelhead retained	100	60	114	16	4	73	367
Ad-absent steelhead released	1	0	0	0	0	0	1
Total ad-absent steelhead caught	101	60	114	16	4	73	368
Total ad-present steelhead released	105	103	138	81	6	81	514
Ad-present hatchery steelhead released	60	53	79	31	4	49	276
Natural-origin steelhead released 1/	45	50	59	50	2	32	238
Total steelhead caught	206	163	252	97	10	154	882
Natural-origin steelhead mortality 2/	2	3	3	3	0	1	12
Ad-present hatchery steelhead mortality	3	3	4	2	0	2	14
Ad-absent hatchery steelhead mortality	100	60	114	16	4	73	367
Total steelhead mortality	105	66	121	21	4	76	393

1/ Based on an average of 46.3% natural-origin within the adipose-present population
2/ Calculated using 5% catch and release hooking mortality on natural origin fish

Mainstem Columbia River (Wells Dam to Chief Joseph Dam)

An estimated 5,095 anglers fished 22,164 hours and caught a total of 2,237 steelhead, of which 1,080 were adipose absent, 810 were adipose present hatchery, and 347 were natural origin (Table 4).

Table 4. Estimated summary of the 2009-2010 UCR steelhead fishery in the Columbia River between Wells Dam and Chief Joseph Dam

	Oct	Nov	Dec	Jan	Feb	Mar	Total
Effort Hours	9,107	6,348	2,923	2,073	1,119	594	22,164
Anglers	2,024	1,529	672	476	258	136	5,095
Ad-absent steelhead retained	434	351	177	52	11	0	1,025
Ad-absent steelhead released	25	20	0	10	0	0	55
Total ad-absent steelhead caught	459	371	177	62	11	0	1,080
Total ad-present steelhead released	400	373	97	50	33	204	1,157
Ad-present hatchery steelhead released	280	261	68	35	23	143	810
Natural-origin steelhead released 1/	120	112	29	15	10	61	347
Total steelhead caught	859	744	274	112	44	204	2,237
Natural-origin steelhead mortality 2/	6	6	1	1	0	3	17
Ad-present hatchery steelhead mortality	14	13	3	2	1	7	40
Ad-absent hatchery steelhead mortality	435	352	177	53	11	0	1,028
Total steelhead mortality	455	371	181	56	12	10	1,085

1/ Based on 39% natural-origin within the adipose-present population above Wells Dam
2/ Calculated using 5% catch and release hooking mortality on natural origin fish

Wenatchee River

An estimated 3,945 anglers fished 11,718 hours and caught a total of 931 steelhead, of which 250 were adipose absent, 360 were adipose present hatchery, and 321 were natural origin (Table 5).

Table 5. Estimated summary of the 2009-2010 UCR steelhead fishery in the Wenatchee River

	Oct	Nov	Dec	Jan	Feb	Total
Effort Hours	7,152	2,197	51	1,123	1,195	11,718
Anglers	2,034	1,015	20	451	425	3,945
Ad-absent steelhead retained	115	41	3	38	48	245
Ad-absent steelhead released	0	0	0	3	2	5
Total ad-absent steelhead caught	115	41	3	41	50	250
Total ad-present steelhead released	224	211	0	98	148	681
Ad-present hatchery steelhead released	117	113	0	52	78	360
Natural-origin steelhead released 1/	107	98	0	46	70	321
Total steelhead caught	339	252	3	139	198	931
Natural-origin steelhead mortality 2/	5	5	0	2	4	16
Ad-present hatchery steelhead mortality	6	6	0	3	3	18
Ad-absent hatchery steelhead mortality	115	41	3	38	48	245
Total steelhead mortality	126	52	3	43	55	279

1/ Based on 47.1% natural-origin within the adipose-present population
2/ Calculated using 5% catch and release hooking mortality on natural origin fish

Icicle River

During the month of October, an estimated 383 anglers fished 767 hours and caught a total of 12 steelhead, of which none were adipose absent, six were adipose present hatchery, and six were natural origin for a total estimated steelhead mortality of one fish.

Entiat River

An estimated 713 anglers fished 1,857 hours and caught a total of 266 steelhead, of which 81 were adipose absent, 93 were adipose present hatchery, and 92 were natural origin (Table 6).

Table 6. Estimated summary of the 2009-2010 UCR steelhead fishery in the Entiat River

	Oct	Nov	Dec	Jan	Feb	Mar	Total
Effort Hours	563	459	16	186	189	444	1,857
Anglers	237	186	10	63	68	149	713
Ad-absent steelhead retained	20	15	4	7	0	35	81
Ad-absent steelhead released	0	0	0	0	0	0	0
Total ad-absent steelhead caught	20	15	4	7	0	35	81
Total ad-present steelhead released	24	26	5	36	0	94	185
Ad-present hatchery steelhead released	12	13	3	18	0	47	93
Natural-origin steelhead released 1/	12	13	2	18	0	47	92
Total steelhead caught	44	41	9	43	0	129	266
Natural-origin steelhead mortality 2/	1	1	0	1	0	2	5
Ad-present hatchery steelhead mortality	1	1	1	1	0	2	6
Ad-absent hatchery steelhead mortality	20	15	4	7	0	35	81
Total steelhead mortality	22	17	5	9	0	39	92

1/ Based on 39% natural-origin within the adipose-present population
2/ Calculated using 5% catch and release hooking mortality on natural origin fish

Methow River

An estimated 9,420 anglers fished 40,038 hours and caught a total of 7,139 steelhead, of which 3,958 were adipose absent, 2,227 were adipose present hatchery, and 954 were natural origin (Table 7).

Table 7. Estimated summary of the 2009-2010 UCR steelhead fishery in the Methow River

	Oct	Nov	Dec	Jan	Feb	Mar	Total
Effort Hours	17,243	7,762	714	2,861	5,426	6,032	40,038
Anglers	4,057	1,826	168	673	1,277	1,419	9,420
Ad-absent steelhead retained	2,197	624	33	245	391	397	3,887
Ad-absent steelhead released	62	6	0	3	0	0	71
Total ad-absent steelhead caught	2,259	630	33	248	391	397	3,958
Total ad-present steelhead released	1,069	516	51	224	533	788	3,181
Ad-present hatchery steelhead released	748	361	36	157	373	552	2,227
Natural-origin steelhead released 1/	321	155	15	67	160	236	954
Total steelhead caught	3,328	1,146	84	472	924	1,185	7,139
Natural-origin steelhead mortality 2/	16	8	1	3	8	12	48
Ad-present hatchery steelhead mortality	37	18	2	8	19	28	112
Ad-absent hatchery steelhead mortality	2,200	624	33	245	391	397	3,890
Total steelhead mortality	2,253	650	36	256	418	437	4,050

1/ Based on 39% natural-origin within the adipose-present population
2/ Calculated using 5% catch and release hooking mortality on natural origin fish

Okanogan River

An estimated 3,343 anglers fished 11,960 hours and caught a total of 2,969 steelhead, of which 2,248 were adipose absent, 504 were adipose present hatchery, and 217 were natural origin (Table 8).

Table 8. Estimated summary of the 2009-2010 UCR steelhead fishery in the Okanogan River

	Oct	Nov	Dec	Jan	Feb	Mar	Total
Effort Hours	4,437	1,179	180	309	3,141	2,714	11,960
Anglers	986	262	40	103	1,047	905	3,343
Ad-absent steelhead retained	260	113	64	108	641	1,058	2,244
Ad-absent steelhead released	0	4	0	0	0	0	4
Total ad-absent steelhead caught	260	117	64	108	641	1,058	2,248
Total ad-present steelhead released	91	39	10	59	266	256	721
Ad-present hatchery steelhead released	64	27	7	41	186	179	504
Natural-origin steelhead released 1/	27	12	3	18	80	77	217
Total steelhead caught	351	156	74	167	907	1,314	2,969
Natural-origin steelhead mortality 2/	1	1	0	1	4	4	11
Ad-present hatchery steelhead mortality	3	1	0	2	9	9	24
Ad-absent hatchery steelhead mortality	260	113	64	108	641	1,058	2,244
Total steelhead mortality	264	115	64	111	654	1,071	2,279

1/ Based on 39% natural-origin within the adipose-present population
2/ Calculated using 5% catch and release hooking mortality on natural origin fish

Similkameen River

An estimated 986 anglers fished 3,024 hours and caught a total of 1,150 steelhead , of which 831 were ad-absent, 224 were ad-present hatchery, and 95 were natural origin (Table 9).

Table 9. Estimated summary of the 2009-2010 UCR steelhead fishery in the Similkameen River

	Nov	Dec	Jan	Feb	Mar	Total
Effort Hours	473	148	319	576	1,508	3,024
Anglers	141	44	106	192	503	986
Ad-absent steelhead retained	22	29	51	57	672	831
Ad-absent steelhead released	0	0	0	0	0	0
Total ad-absent steelhead caught	22	29	51	57	672	831
Total ad-present steelhead released	11	0	34	20	254	319
Ad-present hatchery steelhead released	8	0	24	14	178	224
Natural-origin steelhead released 1/	3	0	10	6	76	95
Total steelhead caught	33	29	85	77	926	1,150
Natural-origin steelhead mortality 2/	0	0	1	0	4	5
Ad-present hatchery steelhead mortality	0	0	1	1	9	11
Ad-absent hatchery steelhead mortality	22	29	51	57	672	831
Total steelhead mortality	22	29	53	58	685	847

1/ Based on 39% natural-origin within the adipose-present population
2/ Calculated using 5% catch and release hooking mortality on natural origin fish

Fishery Impacts to Natural Origin Steelhead

Mainstem Columbia River (Rock Island Dam to Wells Dam, including Entiat)

Natural origin steelhead located within the mainstem Columbia River from Rock Island Dam to Wells Dam, including the Entiat River, were estimated using pit tag data and run estimates from Priest Rapids Dam sampling. Based on that analysis, an estimated 2,391 natural origin steelhead of unknown proportions of Wenatchee, Entiat, and above Wells origin fish were located between Rock Island and Wells Dams (Table 2). Anglers in this section of the Columbia River, including the Entiat River, caught and released 330 natural origin steelhead (Tables 3 and 6), representing an encounter rate on natural origin fish of 13.8%. Using a 5% hook and release mortality on natural origin steelhead, the fishery impacts were 17 natural origin steelhead, representing 0.7% of the estimated natural origin steelhead between Rock Island and Wells Dams, and is consistent with the Tier 1 fishery criteria of limiting natural origin steelhead mortality to 2% or less.

Wenatchee River, including the Icicle River

Fishery impacts to the UCR steelhead population may have occurred as a result of steelhead fisheries in the Wenatchee River and tributaries. Collectively, the fishery area encountered 327 (321 Wenatchee and six Icicle) of the estimated 869 natural origin Wenatchee River steelhead, representing an encounter rate of 37.6%. Assuming a 5% hook and release mortality, the Wenatchee River natural origin steelhead impacts were 17 fish, which represent a 1.9% mortality of the estimated natural origin steelhead returning to the Wenatchee River and is consistent with the Tier 1 fishery criteria of limiting natural origin steelhead mortality to 2% or less.

Methow River, including Columbia River (Wells Dam to Chief Joseph Dam)

Fishery impacts to the UCR steelhead population may have occurred as a result of steelhead fisheries in the Methow River and in the mainstem Columbia River between Wells Dam and Chief Joseph Dam. One hundred percent of the natural origin Methow River steelhead and 79% of the natural origin main stem Columbia River steelhead caught and released during the fishery were used to determine natural-origin steelhead encounter rates (English 2001). Collectively, the two fishery areas encountered 1,228 (954 Methow and 274 main stem Columbia) of the estimated 1,683 natural-origin Methow River steelhead (Tables 4 and 7), representing an encounter rate of 73%. Assuming 5% post release mortality, the Methow River natural-origin steelhead impacts were 62 fish, which represent a 3.7% mortality of the estimated natural-origin steelhead returning to the Methow River and is consistent with the Tier 2 fishery criteria of limiting natural origin steelhead mortality to 4% or less.

Okanogan/Similkameen Rivers, including Columbia River (Wells-Chief Joseph)

Fishery impacts to the UCR steelhead population may have occurred as a result of steelhead fisheries in the Okanogan and Similkameen Rivers, including the main stem Columbia River between Wells Dam and Chief Joseph Dam. One hundred percent of the natural origin Okanogan and Similkameen River steelhead and 21% of the natural-origin main stem Columbia River steelhead caught and released during the fishery were used to determine natural-origin steelhead encounter rates (English 2001). Collectively, the three fishery areas encountered 385 (217 Okanogan, 95 Similkameen, and 73 main stem Columbia) of the estimated 447 natural origin Okanogan and Similkameen River steelhead (Tables 4, 6, and 7), representing an encounter rate of 86.1%. Assuming 5% post release mortality, the Okanogan/Similkameen River natural origin steelhead impacts were 20 fish, which represent a 4.5% mortality of the estimated natural origin steelhead returning to the Okanogan and Similkameen Rivers and is consistent with the Tier 2 fishery criteria of limiting natural origin steelhead mortality to 7% or less.

FISHERY ENFORCEMENT

Enforcement of regulations protecting ESA-listed UCR steelhead occurred throughout the steelhead fishery areas. Enforcement activities reported 700 enforcement hours, 977 angler contacts, and 203 reported violations (Table 8).

Table 10. Summary of WDFW enforcement for the 2009-2010 UCR steelhead fishery

Month	Enforcement effort		Citations/Warnings				
	Hours	Contacts	Arrests	Infractions	Misdemeanors	Felonies	Warnings
October	173	277	30	20	10	0	14
November	104	166	18	12	6	0	8
December	69	110	12	8	4	0	6
January	130	160	9	6	3	0	7
February	131	160	8	5	3	0	6
March	93	104	2	0	2	0	4
Total	700	977	79	51	28	0	45

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APPENDIX A1

FISHING RULE CHANGE

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

600 Capitol Way North, Olympia, WA 98501-1091

September 28, 2009

Upper Columbia, several other rivers to open for hatchery steelhead fishing

Actions: Open the Columbia River from Rock Island Dam to 400 feet below Chief Joseph Dam, including the Wenatchee, Entiat, Methow, and Okanogan Rivers, September 29, 2009, and Similkameen River, November 1, 2009, to fishing for adipose-fin clipped hatchery-origin steelhead until further notice.

The daily limit will be four (4) adipose fin-clipped, hatchery-origin steelhead, 20-inch minimum size, per day.

Mandatory retention of adipose fin-clipped hatchery origin steelhead.

Selective gear rules apply with various exceptions in some areas (see below)

A night closure is in effect for all waters for the duration of the fishery

Current salmon and all other game fish gear rules do not apply during steelhead season

Release any steelhead with one or more round holes punched in the caudal (tail) fin.

1) The mainstem Columbia River from Rock Island Dam to 400 feet below Chief Joseph Dam. September 29, 2009 until further notice. Night closure and Selective Gear Rules apply, except motorized vessels and bait are allowed. Release all coho and after October 15, mandatory release of all salmon.

2) The Wenatchee River mouth to the sign about 800 feet below the most downstream side of Tumwater Dam. September 29, 2009 until further notice. Night closure and selective gear rules apply. Release all salmon.

3) Icicle River, from the mouth to 500 feet downstream of the Leavenworth National Fish Hatchery Barrier Dam. September 29, 2009 - November 15, 2009. Three coho, minimum size 12 inches, may be retained daily. Release all floy-tagged coho.

4) The Entiat River upstream from the Alternate Highway 97 Bridge near the mouth of the Entiat River to 800 feet downstream of the Entiat National Fish Hatchery outfall. September 29, 2009 until further notice. Night closure and selective gear rules apply, except motorized vessels are allowed. Release all salmon.

5) The Methow River from the Hwy. 97 Bridge in Pateros upstream to the second powerline crossing, and from the first Hwy. 153 Bridge north of Pateros to the confluence with the Chewuch River in Winthrop, WA. CLOSED WATERS FROM SECOND POWERLINE CROSSING UPSTREAM TO THE FIRST HWY 153 BRIDGE. September 29, 2009 until further notice. Night closure and selective gear rules apply, except motorized vessels are allowed. Whitefish gear rules do not apply. Release all salmon.

6) The Okanogan River: CLOSED WATERS from the Lake Osoyoos Control Dam (Zosel Dam) downstream to the first Hwy 97 Bridge below Oroville Washington. September 29, 2009 until further notice. Night closure and selective gear rules apply, except motorized vessels are allowed.

7) The Similkameen River, from its mouth to 400 feet below Enloe Dam. November 1, 2009 until further notice. Night closure and selective gear rules apply.

Species affected: steelhead

Other information: Anglers are required to release all ad-present steelhead. Any steelhead caught with an intact adipose fin may not be totally removed from the water and must be released immediately. For all waters, mandatory release of all salmon unless otherwise noted above.

Reason for action: The fishery will reduce the number of excess hatchery-origin steelhead and consequently increase the proportion of natural-origin steelhead on the spawning grounds. Higher proportions of naturally produced spawners are expected to improve genetic integrity and stock recruitment of upper Columbia River steelhead through perpetuation of steelhead stocks with the greatest natural-origin lineage.

Information contacts: Jeff Korth, Region 2 Fish Program Manager, (509) 754-4624, Bob Jateff, District 6 Fish Biologist, (509) 997-0316, Art Viola, District 7 Fish Biologist, (509) 665-3337.

Fishers must have a current Washington fishing license, appropriate to the fishery. Check the WDFW "Fishing in Washington" rules pamphlet for details on fishing seasons and regulations. Fishing rules are subject to change. Check the WDFW Fishing hotline for the latest rule information at (360) 902-2500, press 2 for recreational rules. For the Shellfish Rule Change hotline call (360)796-3215 or toll free 1-866-880-5431.

APPENDIX A2

FISHING RULE CHANGE

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

600 Capitol Way North, Olympia, WA 98501-1091

October 15, 2009

Additional section of the Methow River to open for steelhead fishing Oct. 21

Action: Open the Methow River from the second powerline crossing upstream of Pateros to the first Hwy 153 Bridge.

The daily limit will be four adipose fin-clipped, hatchery-origin steelhead, 20-inch minimum size

Mandatory retention of adipose fin-clipped hatchery origin steelhead

Selective gear rules apply, no bait allowed

A night closure is in effect for the duration of the fishery

Release any steelhead with one or more round holes punched in the caudal (tail) fin

Boats with motors are not allowed

Location: The Methow River from the second powerline crossing upstream of Pateros to the first Hwy 153 Bridge.

Effective date: Oct. 21, 2009

Species affected: Steelhead.

Other information: Anglers are required to release all adipose-present steelhead. Any steelhead caught with an intact adipose fin may not be removed from the water and must be released immediately.

Reason for action: Sufficient numbers of wild steelhead have moved up-river from this section, allowing anglers additional opportunity to harvest adipose fin-clipped steelhead with minimal impact to wild fish. The fishery will reduce the number of excess hatchery-origin steelhead and consequently increase the proportion of natural-origin steelhead on the spawning grounds. Higher proportions of naturally produced spawners are expected to improve genetic integrity and stock recruitment of upper Columbia River steelhead through perpetuation of steelhead stocks with the greatest natural-origin lineage.

Information contacts: Jeff Korth, Region 2 Fish Program Manager, (509) 754-4624, Bob Jateff, District 6 Fish Biologist, (509) 997-0316

Fishers must have a current Washington fishing license, appropriate to the fishery. Check the WDFW "Fishing in Washington" rules pamphlet for details on fishing seasons and regulations. Fishing rules are subject to change. Check the WDFW Fishing hotline for the latest rule information at (360) 902-2500, press 2 for recreational rules. For the Shellfish Rule Change hotline call (360)796-3215 or toll free 1-866-880-5431.

APPENDIX A3

Fishing Rule Change

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
600 Capitol Way North, Olympia, Washington 98501-1091
Internet Address: wdfw.wa.gov

February 10, 2010

Steelhead fishing rules change in the Upper Columbia

Actions:

- Allow the retention of hatchery-origin adipose fin-clipped steelhead with circular (hole) punches in the caudal (tail) fin, Feb. 12, 2010.
- Close the Wenatchee River to steelhead fishing midnight February 28, 2010.
- Close sections of the Okanogan River around the mouths of Omak and Bonaparte creeks as of March 15, 2010.

Species affected: Hatchery origin adipose fin-clipped steelhead.

Hatchery-origin steelhead retention rule change: Anglers may retain hatchery-origin adipose fin-clipped steelhead with circular (hole) punches in the caudal (tail) fin as of Feb. 12, 2010 only in areas of the Columbia River and tributaries that remain open to steelhead fishing.

Fishing area locations and effective closure dates:

- **The Wenatchee River from the mouth to 800 feet below Tumwater Dam, including the Icicle River from the mouth to 500 feet downstream of the Leavenworth National Fish Hatchery Barrier Dam.** Open through February 28, 2010. Night closure and selective gear rules apply.

- **The Okanogan River from the mouth upstream to Hwy 97 Bridge in Oroville.** Open through March 31, 2010. Night closure and selective gear rules apply, except motorized vessels allowed. CLOSED WATERS effective March 15, 2010 from the first powerline crossing downstream of the Hwy 155 Bridge in Omak (Coulee Dam Credit Union Building) to the mouth of Omak Creek and from the Tonasket Bridge (4th Street) downstream to the Tonasket Lagoons Park boat launch.

Location and regulations of areas previously opened to hatchery-origin steelhead harvest:

- **The mainstem Columbia River from Rock Island Dam to 400 feet below Chief Joseph Dam.** Open through March 31, 2010. Night closure and selective gear rules apply, except motorized vessels and bait is allowed.

- **The Entiat River upstream from the Alternate Highway 97 Bridge near the mouth of the Entiat River, approximately 6 miles to 800 feet downstream of the Entiat National Fish Hatchery outfall.** Open through March 31, 2010. Night closure and selective gear rules apply, except motorized vessels allowed.

- **The Similkameen River, from its mouth to 400 feet below Enloe Dam.** Open through March 31, 2010. Night closure and selective gear rules apply.

- **The Methow River from the Hwy. 97 Bridge in Pateros upstream to the confluence with the Chewuch River in Winthrop, WA.** Open through March 31, 2010. Night closure and selective gear rules apply, except motorized vessels allowed.

Reason for action: Allowable impacts to natural origin steelhead due to angling on the Wenatchee River will be met by the end of February, and the fishery will close at midnight February 28. In addition, sections of the Okanogan River around the mouths of Omak and Tonasket creeks are closed to protect natural origin steelhead staging prior to spawning in those tributaries.

Anglers may retain hatchery adipose fin-clipped steelhead with circular (hole) punches in the caudal (tail) fin in areas of the Columbia River that remain open to steelhead fishing. Circular (hole) punches were put in the caudal (tail) fin for sampling and monitoring purposes at Priest Rapids Dam, these fish are no longer needed for monitoring and can now be legally retained.

Other information: Anglers are required to harvest hatchery origin steelhead with an adipose fin-clip and a healed scar in the location of the missing fin. There is a four (4) fish mandatory daily retention limit on adipose fin-clipped steelhead, 20-inch minimum size. All steelhead with an intact adipose fin must be immediately released unharmed and cannot be removed from the water. All other fisheries must follow selective gear rules, except that bait is also allowed on the mainstem Columbia River from Rock Island Dam to 400 feet below Chief Joseph Dam.

WDFW will be monitoring the steelhead fishery area from Rock Island Dam to Chief Joseph Dam including tributaries. Certain fishery areas can close at any time, so anglers are advised to check the WDFW website

(https://fortress.wa.gov/dfw/erules/efishrules/) periodically for emergency rule changes.

Information contacts: Jeff Korth, Region 2 Fish Program Manager, (509) 754-4624, Bob Jateff, District 6 Fish Biologist, (509) 997-0316, Art Viola, District 7 Fish Biologist, (509) 665-3337

Fishers must have a current Washington fishing license. Check the current WDFW "Fishing in Washington" rules pamphlet or the Fishing section of the WDFW webpage at wdfw.wa.gov for details on fishing seasons and regulations. Fishing regulations are subject to change. Check the WDFW Fishing hotline for the latest rule information at (360) 902-2500; press 2 for recreational rules; call the Shellfish Rule Change hotline, (360) 796-3215, or toll free 1 (866) 880-5431.