

Inherent Watershed Sensitivity Analysis

Sensitivity Scores, Ratings, Calculations and Criteria

Analysis provides the relative inherent susceptibility of Colville Indian Reservation watersheds (WMUs) to disturbance and degradation. This final report includes updates and revisions to previous analysis in Appendix F of the 1997 CCT Phase 1 IRMP: Hydrology.

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Inherent Watershed Sensitivity Analysis Notes and Methodology

Background

Inherent Watershed Sensitivity (IWS) is a measure of watershed resiliency to impacts brought about by natural and man-induced events. IWS scores rank the natural capacity of a watershed to maintain its hydrologic function and stable erosion patterns given a certain level of disturbance. Watersheds of higher sensitivity have a lower tolerance for disturbance, and the health and quality of the soil and water resource base are at greater risk to management activities in these systems. Once the disturbance threshold level for a given watershed is exceeded, a series of long-term negative changes are likely to occur as the destabilized system responds to a new set of physical conditions (e.g. changes in peak flow and sediment load).

Because soil development and landscape features vary substantially across the Reservation, watersheds and areas within are not equally susceptible to disturbances such as soil compaction, loss of productivity, accelerated surface erosion, and mass wasting. Local or cumulative effects of management activities will affect different watersheds differently. For example, harvest-related impacts to a low sensitivity watershed may be quite low, while the same activity conducted in a similar way in a high sensitivity watershed could have long term ecologic and economic consequences.

Parameters linked to this sensitivity include watershed size, shape and aspect, hillslope gradient, elevation, geology, soil and vegetation types, and precipitation patterns. These factors were used in this analysis as they influence surface runoff (volume and rate) and erosion. They affect infiltration, storage, routing and release of water to channels and, thus, regulate runoff timing and flow regimes.

Methods

The two-part methodology used to develop Inherent Watershed Sensitivity (IWS) ratings was based on the following parameters: 1) Hillslope gradient, 2) Soil depth to restricting layer, 3) Soil surface material, 4) Soil substratum material, 5) Hydrologic soil group, 6) Soil erosion index, and 7) Precipitation type / elevation zone. The first six (6) parameters were used to determine inherent soil sensitivity scores for each of the 178 soil series mapped on the Reservation. Soil sensitivity ratings for each soil map unit correspond with numbered polygons shown on published soil survey maps (USDA/NRCS, 2002, [Soil Survey of the Colville Indian Reservation, Parts of Ferry & Okanogan County](#)) and are published as the [Soil Sensitivity Analysis](#) (Hunner, Rolph & Cooley, Dec 2003). The product of the six (6) soil parameter values constitutes the Soil Sensitivity Score (ISS) for a given soil map unit. Sensitivity scores were grouped into rating classes by map unit scores based on natural clusters. Although watershed-scale scores are the focus of this report, sub-watershed level analysis is possible because each individual soil polygon receives its own rating.

The second step in determining a watershed's IWS involves taking the area-weighted average of ISS scores and applying a scaling factor to it. This scaling factor characterizes the relative potential for damaging Rain-On-Snow (ROS) events* to affect the watershed. Therefore, the final IWS score is the product of the ISS score for a WMU and an elevation zone scaling value that is based on the percentage of a given WMU in the ROS elevation zone (2000 to 4000 feet). Elevation zone values of 2.00, 2.53, and 3.00 indicate 0%, 53%, and 100% in the ROS zone, respectively (See WA DNR Forest Practices Board Manual: Standard Methodology for Conducting Watershed Analysis). IWS scores were grouped into rating classes by WMU based on natural clusters.

* ROS events accelerate surface runoff and erosion rates and increase runoff volumes, particularly in disturbed watersheds. Hence, the hydrologic sensitivity and degree of risk of soil productivity loss due to soil loss and stream resource impairment due to elevated sedimentation and streamflow alteration (e.g. enhanced peak flow magnitude and frequency) is influenced directly by the amount of WMU area in the ROS zone.

Results

The sensitivity analysis identifies WMUs that are most and least susceptible to land-disturbing management activities. The risk of soil loss, sedimentation, streamflow alteration, and adverse channel and aquatic resource impacts are high in certain watersheds and low in others. The related Soil Sensitivity Analysis both details the strong influence soils have on the overall sensitivity/resiliency of watersheds and identifies sensitive areas at the sub-watershed scale.

Inherent Watershed Sensitivity Rating Summary

<u>Score Range</u>	<u>Rating Class</u>	<u>Number of WMUs</u>	
308.2 to 413.1	Extreme	9	
220.0 to 275.7	High	20	Results indicate a) 14 percent (29 of 210) of the WMUs comprising about 12 percent of the Reservation area have 'extreme' or 'high' inherent watershed sensitivity; and b) 30 percent (64 of 210) of the WMUs comprising about 26% of the Reservation area have 'extreme', 'high' or 'moderately high' inherent watershed sensitivity.
169.8 to 215.5	Moderately High	35	
114.7 to 169.0	Moderate	43	
75.6 to 112.0	Moderately Low	48	
42.6 to 71.4	Low	33	
12.2 to 42.1	Very Low	22	

Note: The table of inherent watershed sensitivity scores and ratings is a revision of the original table in [Appendix F of IRMP Phase 1 Hydrology Report \(1997\)](#). The analysis method here is consistent with this 1997 report, but revisions are based on changes to soil value assignments and to soil map unit sensitivity scores and ratings in Appendix I of the 1997 report. These changes are indicated in the related [Soil Sensitivity Analysis](#) by Hunner, Rolph and Cooley (Dec 2003) and are based on updated soils information from the NRCS.

Analysis methodology, scoring criteria and policies, technical notes, and copies of this report are available through the CCT Hydrologist and Soil Scientist.

Management Recommendations

The sensitivity analysis provides a condition index, based on inherent soil and hydrological factors, for watersheds specifically managed for sustainable harvests and healthy streams. It serves as a basis for determining the allowable extent and spatial distribution of harvest activities within a watershed in order to minimize adverse impacts to resources. Results of the study also can be used with viable ecosystem planning and help guide efforts toward achieving desired future conditions for managed watersheds on the Reservation. Putting study results into practice requires organizational support and establishment by managers of harvest and land-disturbing activity thresholds in order to balance economic and ecologic priorities consistent with the Holistic Goal.

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Inherent Watershed Sensitivity Scores and Ratings by WMU for the Colville Indian Reservation, Washington

Watershed Management Unit (WMU)	Calculation Criteria				IWS Score	IWS Rating
	IRMP WMU Acres	Calc Acres	ISS	ROS Value		

Hall Creek RMU-01

01-01	Columbia River 01	1527	1514.9	42.7	2.50	106.9	Moderately Low
01-02	Columbia River 02	3307	3301.3	23.5	2.33	54.7	Low
01-03	Columbia River 03	3141	3125.0	19.4	2.35	45.7	Low
01-04	Barnaby Creek	9339	9332.6	32.3	2.84	91.7	Moderately Low
01-05	Little Jim Creek	2917	2915.9	24.1	2.84	68.3	Low
01-06	Cobbs Creek	2053	2053.3	12.2	2.31	28.1	Very Low
01-07	Lower Hall Creek	19246	19167.9	38.4	2.70	103.6	Moderately Low
01-08	Onion Creek	2877	2874.6	66.3	2.71	179.7	Moderately High
01-09	North Fork Hall Creek	8552	8553.0	61.5	2.89	177.6	Moderately High
01-10	Lower Lynx Creek	6707	6707.1	59.1	2.89	170.9	Moderately High
01-11	Stall Creek	3184	3182.2	63.8	2.44	155.7	Moderate
01-12	Sleepy Hollow	972	967.5	56.3	2.79	157.0	Moderate
01-13	Upper Hall Creek	11133	11122.7	74.5	2.69	200.5	Moderately High
01-14	Grizzly Creek	2132	2131.8	90.9	2.42	220.0	High
01-15	Sitdown Creek	11312	11312.3	113.9	2.42	275.7	High
01-16	Johns Mtn Creek	3167	3166.9	158.1	2.46	388.9	Extreme
01-17	Upper Lynx Creek	16562	16563.4	139.8	2.43	339.7	Extreme
01-18	West Fork Hall Creek	7315	7314.0	46.2	2.10	97.0	Moderately Low

Twin Lakes RMU-02

02-01	Lower Stranger Creek	7714	7689.4	15.0	2.23	33.4	Very Low
02-02	Stray Dog Canyon	6153	6153.3	15.0	2.81	42.1	Very Low
02-03	Cornstalk Creek	7241	7241.2	28.4	2.98	84.8	Moderately Low
02-04	Columbia River 04	6610	6559.3	20.5	2.08	42.6	Low
02-05	South Twin Lake	4009	4009.2	36.5	3.00	109.5	Moderately Low
02-06	Granite Creek	5927	5927.4	95.8	2.69	257.8	High
02-07	Beaver Dam Creek	6001	6001.1	171.3	2.41	412.9	Extreme
02-08	North Twin Lake	7285	7285.8	43.8	2.86	125.3	Moderate
02-09	Upper Stranger Creek	10551	10552.1	25.8	2.97	76.5	Moderately Low

Watershed Management Unit (WMU)	Calculation Criteria			IWSS Score	IWSS Rating
	IRMP WMU Acres	Calc Acres	sum(preROS)		

Wilmont Creek RMU-03

03-01	Nez Perce Creek	18942	18935.6	31.0	2.75	85.4	Moderately Low
03-02	Falls Creek	8649	8649.5	28.7	2.90	83.4	Moderately Low
03-03	Coyote Creek 2	2246	2246.4	40.4	2.92	118.0	Moderate
03-04	Monaghan Creek	2558	2557.8	28.6	2.80	80.2	Moderately Low
03-05	Columbia River 05	3410	3382.0	22.0	2.23	49.0	Low
03-06	Columbia River 06	1201	1197.1	28.4	2.49	70.7	Low
03-07	Columbia River 07	3159	3124.8	17.7	2.29	40.6	Very Low
03-08	Upper Wilmont Creek	12581	12582.3	89.4	2.96	264.5	High
03-09	Lower Wilmont Creek	11916	11914.5	43.0	2.73	117.4	Moderate
03-10	Dry Creek	2215	2214.9	148.6	2.78	413.1	Extreme
03-11	Rock Creek	762	762.5	53.7	2.93	157.3	Moderate
03-12	Three Forks Creek	1534	1534.1	34.6	2.92	101.0	Moderately Low
03-13	Little Wilmont Creek	5937	5937.6	42.8	2.99	128.1	Moderate

Ninemile Creek RMU-04

04-01	Klondyke Creek	3438	3438.1	118.9	2.80	333.0	Extreme
04-02	Wells Creek	4171	4171.2	83.5	2.90	242.1	High
04-03	Gibson Creek	2250	2250.1	66.3	2.86	189.6	Moderately High
04-04	Fay Creek	2837	2837.2	58.6	3.00	175.8	Moderately High
04-05	Middle Nine Mile Creek	6562	6562.8	83.1	2.97	246.9	High
04-06	Jerred Creek	3146	3146.0	65.3	3.00	196.0	Moderately High
04-07	Lower Nine Mile Creek	10280	10279.5	42.9	2.58	110.6	Moderately Low
04-08	Columbia River 08	4207	4171.2	16.9	2.31	39.0	Very Low
04-09	Canteen Creek	2420	2419.8	109.3	2.82	308.2	Extreme
04-10	Little Nine Mile Creek	3702	3700.0	109.1	2.90	316.5	Extreme
04-11	South Fork Nine Mile Creek	14319	14320.3	62.1	2.95	183.1	Moderately High
04-12	Sclope Creek	4211	4211.3	62.7	3.00	188.2	Moderately High
04-13	Olds Creek	2229	2229.0	118.5	3.00	355.5	Extreme
04-14	Cook Creek	4270	4270.5	85.0	3.00	254.9	High
04-15	Pollock Creek	2586	2586.5	87.2	3.00	261.7	High
04-16	Jones Creek	1838	4037.0	55.5	3.00	166.4	Moderate
04-17	Upper NineMile Creek	4037	5920.7	52.6	3.00	157.7	Moderate

Watershed Management Unit (WMU)	Calculation Criteria			IWSS Score	IWSS Rating
	IRMP WMU Acres	Calc Acres	sum(preROS)		

Hellgate RMU-05

05-01	Six Mile Creek	7692	7691.2	59.4	2.77	164.5	Moderate
05-02	Cottonwood Creek	938	938.1	39.7	2.27	90.0	Moderately Low
05-03	Three Mile Creek	299	298.8	32.4	2.00	64.7	Low
05-04	N. Fork Three Mile Creek	3885	3884.9	73.3	2.94	215.5	Moderately High
05-05	S. Fork Three Mile Creek	3852	3852.6	65.2	2.95	192.2	Moderately High
05-06	Louie Creek 2	834	833.8	30.6	2.77	84.8	Moderately Low
05-07	Johnny George	4024	4024.0	36.5	2.87	104.7	Moderately Low
05-08	Rattlesnake Draw	1630	1629.2	36.1	2.75	99.4	Moderately Low
05-09	Columbia River 09	1196	1194.9	54.5	2.37	129.2	Moderate
05-10	Columbia River 10	1545	1543.0	26.8	2.29	61.3	Low
05-11	Columbia River 11	1425	1422.7	22.8	2.31	52.7	Low
05-12	Columbia River 12	2399	2385.0	16.0	2.27	36.3	Very Low
05-13	Columbia River 13	2422	2415.5	67.2	2.37	159.2	Moderate
05-14	Columbia River 14	1062	1062.2	70.1	2.96	207.4	Moderately High
05-15	Columbia River 15	5920	1829.5	75.6	2.45	185.1	Moderately High
05-16	Columbia River 16	4735	4734.3	47.2	2.55	120.4	Moderate
05-17	Columbia River 17	2217	2191.8	26.3	2.72	71.4	Low
05-18	Columbia River 18	4673	4645.9	38.5	2.35	90.6	Moderately Low
05-19	Redford Canyon	6035	6028.3	58.9	2.67	157.2	Moderate
05-20	Whitestone Canyon	2236	2235.7	73.3	2.86	209.6	Moderately High
05-21	Brody Creek	5997	5994.2	70.5	2.79	196.7	Moderately High
05-22	Hellgate Canyon	1990	1987.2	71.2	2.91	207.1	Moderately High

Upper San Poil River RMU-06

06-01	Thirteen Mile Creek	1081	1080.2	47.6	3.00	142.7	Moderate
06-02	Seventeen Mile Creek	13418	13406.3	49.1	2.60	127.7	Moderate
06-03	South Seventeen Mile Creek	4502	4501.9	60.8	2.79	169.8	Moderately High
06-04	Twentyone Mile Creek	8600	8600.7	69.1	2.66	183.7	Moderately High
06-05	Twentythree Mile Creek	19496	19497.3	63.1	2.70	170.5	Moderately High
06-06	Twentyfive Mile Creek	3038	3038.1	77.3	2.95	228.1	High
06-07	Deadhorse Creek	3340	3340.1	74.1	3.00	222.2	High
06-08	Thirtymile Creek	15941	15942.3	73.2	2.90	212.4	Moderately High

Watershed Management Unit (WMU)	Calculation Criteria			IWSS Score	IWSS Rating
	IRMP WMU Acres	Calc Acres	sum(preROS)		

Upper San Poil River RMU-06 (continued)

06-09	Bridge Creek	19496	19497.8	83.0	2.70	224.0	High
06-10	Capoose Creek	3836	3836.5	51.1	2.90	148.1	Moderate
06-11	Cub Creek	1643	1643.2	59.1	2.95	174.4	Moderately High
06-12	South Nanamkin Creek	10713	10713.0	43.8	2.99	131.0	Moderate
06-13	North Nanamkin Creek	10225	10225.2	64.8	2.87	185.9	Moderately High
06-14	Bear Creek	4251	4251.1	78.8	2.92	230.1	High
06-15	Anderson Creek	3588	3587.8	69.7	2.87	200.1	Moderately High
06-16	Tigger Creek (T33R32s2)	2883	2882.6	57.6	2.69	155.0	Moderate
06-17	Nineteen Mile Creek	2807	2806.9	49.2	3.00	147.7	Moderate
06-18	Upper Sanpoil River	23066	23067.3	44.0	2.89	127.2	Moderate

Lower San Poil River RMU-07

07-01	Louie Creek 1	6829	6829.4	57.0	2.96	168.7	Moderate
07-02	Fortymile Creek	1680	1680.2	62.8	2.99	187.7	Moderately High
07-03	Iron Creek	5917	5917.2	53.2	2.96	157.3	Moderate
07-04	Cow Creek	776	776.4	64.9	2.74	177.8	Moderately High
07-06	Alice Creek	2033	2032.9	58.1	2.79	162.0	Moderate
07-07	Copper Creek	5744	5744.6	92.7	2.76	255.9	High
07-08	Silver Creek	3331	3331.1	74.9	2.83	212.1	Moderately High
07-09	John Tom Creek	4903	4903.3	60.6	2.79	169.0	Moderate
07-10	Dick Creek	4388	4388.2	80.9	2.79	225.7	High
07-11	Manila Creek	13704	13704.9	118.8	2.77	329.2	Extreme
07-12	Meadow Creek	5119	5119.1	68.9	2.75	189.6	Moderately High
07-13	Jack Creek	5429	5429.6	87.7	2.77	243.1	High
07-14	Brush Creek	4080	4080.0	71.5	2.85	203.8	Moderately High
07-15	Empire Creek	3106	3106.1	80.2	2.85	228.6	High
07-16	Lime Creek 1	2910	2910.2	89.7	2.90	260.1	High
07-17	Cache Creek	5042	5042.0	70.2	2.93	205.6	Moderately High
07-18	McCallister Creek	2061	2061.0	71.8	2.96	212.4	Moderately High
07-19	Columbia River 19	2519	2512.9	47.4	2.36	112.0	Moderately Low
07-20	Columbia River 20	480	477.9	29.5	2.31	68.1	Low
07-21	Columbia River 21	614	613.6	27.8	2.14	59.5	Low

Watershed Management Unit (WMU)	Calculation Criteria				IWSS Score	IWSS Rating
	IRMP WMU Acres	Calc Acres	sum(preROS)	ROS Rating		

Lower San Poil River RMU-07 (continued)

07-22	Columbia River 22	1817	1812.0	54.4	2.00	108.8	Moderately Low
07-23	Columbia River 23	3945	3937.9	77.7	2.00	155.5	Moderate
07-24	Lower Sanpoil River	9219	9217.7	35.7	2.655	94.8	Moderately Low

West Fork San Poil River RMU-08

08-01	Lower West Fork Sanpoil River	7077	7068.5	38.8	3.00	116.5	Moderate
08-02	Lower Gold Creek	6742	6742.0	39.4	3.00	118.2	Moderate
08-03	Bungalow Creek	1210	1210.0	39.0	3.00	117.0	Moderate
08-04	Upper Gold Creek	12962	12962.9	44.8	2.70	120.9	Moderate
08-05	Lime Creek 2	141	140.6	27.4	3.00	82.3	Moderately Low
08-06	Deerhorn Creek	3243	3243.6	41.4	2.89	119.7	Moderate
08-07	King Creek	2039	2039.4	51.8	2.66	137.9	Moderate
08-08	Strawberry Creek	4296	4296.0	31.0	2.93	90.8	Moderately Low
08-09	Roaring Creek	1974	1974.2	67.9	2.42	164.3	Moderate
08-10	Upper West Fork Sanpoil River	1451	1448.1	53.3	2.04	108.8	Moderately Low

Nespelem River RMU-09

09-01	Upper Nespelem River	9035	9035.1	51.7	2.95	152.4	Moderate
09-02	Kincaid Creek	4727	4727.0	14.6	3.00	43.9	Low
09-03	Stepstone Creek	12544	12544.2	59.5	2.61	155.3	Moderate
09-04	North Star Creek	7756	7756.4	66.9	2.58	172.6	Moderately High
09-05	Parmenter Creek	4343	4343.6	33.8	2.88	97.4	Moderately Low
09-06	Mill Creek 1	9107	9107.2	21.9	2.64	57.9	Low
09-07	Whitelaw Creek	4329	4328.8	61.8	2.96	182.9	Moderately High
09-08	Peel Creek	1310	1310.3	25.6	3.00	76.9	Moderately Low
09-09	Armstrong Creek	3823	3822.9	31.2	2.94	91.9	Moderately Low
09-10	Smith Creek	6763	6763.6	22.6	2.85	64.4	Low
09-11	Lower Nespelem River	20932	20929.5	14.3	2.55	36.4	Very Low

Watershed Management Unit (WMU)	Calculation Criteria				IWSS Score	IWSS Rating
	IRMP WMU Acres	Calc Acres	sum(preROS)	ROS Rating		

Little Nespelem River RMU-10

10-01	Owhi Creek	5117	5117.0	28.8	3.00	86.4	Moderately Low
10-02	Upper Little Nespelem River	23981	23982.7	26.0	3.00	77.9	Moderately Low
10-03	Poween Creek	2766	2765.7	12.6	2.90	36.6	Very Low
10-04	Joe Moses Creek	12873	12873.4	57.4	2.99	171.6	Moderately High
10-05	Lower Little Nespelem River	11300	11300.8	33.5	2.72	91.2	Moderately Low
10-06	Owhi Lake	3174	3174.1	7.8	3.00	23.4	Very Low

Buffalo-Swawilla Basin RMU-11

11-01	Poker Joe Springs	12147	12143.9	12.0	2.35	28.2	Very Low
11-02	Rebecca Lake	2456	2456.5	23.6	2.60	61.4	Low
11-03	Buffalo Lake	3759	3759.6	77.7	3.00	233.2	High
11-04	Seaton Grove	2806	2805.6	24.5	2.60	63.6	Low
11-05	McGinnis Lake	2416	2415.8	93.3	2.95	275.2	High
11-06	Buffalo Creek	4988	4988.4	85.5	2.95	252.1	High
11-07	Peter Dan Creek	10202	10202.9	54.7	2.85	155.8	Moderate
11-08	Swawilla Basin	16825	16816.2	56.7	2.50	141.8	Moderate
11-09	Coulee Dam	9463	9427.5	30.1	2.70	81.2	Moderately Low

Lost Creek RMU-12

12-01	Sheep Creek	1600	1595.2	48.0	2.39	114.7	Moderate
12-02	Loony Creek	4548	4548.4	39.2	2.43	95.3	Moderately Low
12-03	Lower Lost Creek	9129	9129.8	31.1	2.68	83.3	Moderately Low
12-04	Moses Creek	9407	9407.9	53.1	2.53	134.4	Moderate
12-05	South Fork Lost Creek	3460	3460.5	21.6	2.68	57.8	Low
12-06	Haden Creek	6571	6571.0	28.9	2.20	63.5	Low
12-07	Upper Lost Creek	7407	7406.3	37.8	2.15	81.2	Moderately Low

Watershed Management Unit (WMU)	Calculation Criteria				IWSS Score	IWSS Rating
	IRMP WMU Acres	Calc Acres	sum(preROS)	ROS Rating		

Omak Creek RMU-13

13-01	Okanogan River 01	6823	6822.2	34.7	2.56	88.9	Moderately Low
13-02	Okanogan River 02	4351	4346.6	21.7	2.25	48.7	Low
13-03	Wannacut Creek	9195	9194.2	34.4	2.72	93.4	Moderately Low
13-04	Tunk Creek	5760	5756.8	49.0	2.44	119.4	Moderate
13-05	Mill Creek 2	3840	3840.4	38.6	2.70	104.3	Moderately Low
13-06	Stapaloop Creek	10344	10344.6	34.3	2.54	87.0	Moderately Low
13-07	Swimptkin Creek	5870	5870.1	21.5	2.59	55.7	Low
13-08	Clark Creek	4161	4161.7	28.7	2.77	79.5	Moderately Low
13-09	Trail Creek	6818	6818.7	45.4	2.38	108.0	Moderately Low
13-10	Mission Creek	7326	7326.1	28.7	2.74	78.7	Moderately Low
13-11	Haley Creek	5039	5039.8	20.1	2.85	57.4	Low
13-12	Camp Seven Creek	3499	3499.0	22.9	2.93	67.2	Low
13-13	Corkscrew Creek	5839	5839.0	24.1	2.57	62.0	Low
13-14	Lower Omak Creek	17476	17477.0	25.5	2.75	70.2	Low
13-15	Upper Omak Creek	25770	25771.5	20.8	2.91	60.4	Low

Kartar Valley RMU-14

14-01	No Name Creek	2727	2727.1	43.9	2.09	91.8	Moderately Low
14-02	Beaver House Creek	1668	1667.8	19.0	2.91	55.1	Low
14-03	Poison Oak Creek	2537	2537.5	44.1	2.86	126.3	Moderate
14-04	Rattlesnake Creek	2325	2325.5	24.7	2.81	69.5	Low
14-05	Nason Creek	8614	8614.9	29.2	2.86	83.5	Moderately Low
14-06	Kartar Creek	13825	13825.3	30.6	2.64	80.7	Moderately Low
14-07	Smith Condon Creek	5191	5191.2	23.7	2.53	60.1	Low
14-08	Harrison Creek	5129	5129.4	32.6	2.77	90.4	Moderately Low
14-09	Coyote Creek 1	17433	17433.4	23.4	2.89	67.5	Low
14-10	Lost Creek 2	3154	3154.6	15.6	3.00	46.9	Low
14-12	Omak Lake	28861	28862.5	31.5	2.40	75.6	Moderately Low
14-13	Goose Flats	19529	19528.0	25.3	2.34	59.1	Low
14-24	Columbia River 24	4611	4609.3	43.2	2.39	103.2	Moderately Low
14-25	Columbia River 25	15776	15763.4	16.2	2.47	39.9	Very Low

Watershed Management Unit (WMU)		Calculation Criteria				IWSS Score	IWSS Rating
		IRMP WMU Acres	Calc Acres	sum(preROS)	ROS Rating		
Southwest Plateau RMU-15							
15-01	Felix Creek	3436	3435.8	28.1	2.49	70.0	Low
15-02	Cameron Lake	4073	4073.0	47.7	3.00	143.0	Moderate
15-03	Okanogan River 03	9707	9701.1	10.2	2.19	22.3	Very Low
15-04	Okanogan River 04	11833	11827.3	44.7	2.15	96.1	Moderately Low
15-05	Okanogan River 05	6072	6068.7	17.0	2.06	35.0	Very Low
15-06	Potholes	13766	13766.6	6.7	3.00	20.1	Very Low
15-07	Long Lake	8731	8731.3	6.9	3.00	20.7	Very Low
15-08	Tum Water Canyon	8367	8367.8	11.3	2.60	29.4	Very Low
15-09	Soap Lake	14040	14041.3	50.3	2.30	115.7	Moderate
15-10	Salt Hill	8673	8674.0	26.7	3.00	80.0	Moderately Low
15-11	South Plateau	21412	21414.0	4.9	3.00	14.7	Very Low
15-12	Stubblefield Point	5984	5984.6	4.1	3.00	12.2	Very Low
15-13	Dan Canyon	9082	9083.2	18.5	2.48	46.0	Low
15-14	Chicken Creek	8485	8483.3	10.3	2.35	24.1	Very Low
15-26	Columbia River 26	9040	9023.6	14.8	2.10	31.0	Very Low
15-27	Columbia River 27	16043	16022.1	8.9	2.20	19.5	Very Low
15-28	Columbia River 28	15031	15016.2	5.7	2.22	12.6	Very Low
unnamed WMU	T34R32s36 (across fr Tigger)	790		56.9	3.00	170.7	Moderately High