

APPENDIX H

STREAM HABITAT SURVEY RESULTS

The following tables were created using criteria from the Aquatic Habitat Project Benchmarks (ODFW 1997). Their presentation is organized by subwatershed. The table below presents the stream channel and riparian habitat benchmarks and their values used to rate each reach as good, fair or poor.

BENCHMARK CRITERIA	REACH #		
	Good	Fair	Poor
Pool Area (%)	>35	10-35	<10
Pool Frequency (channel widths/pool)	5-8	9-20	>20
Residual	small stream (<7m width) °	>0.5	0.2-0.5
Pool Depth (m)	medium stream (7-15m width) gradient <3%	>0.6	0.3-0.6
°	gradient >3%	>1.0	0.5-1.0
°		>1.5	0.8-1.5
Complex Pools (# with wood complexity >3/km)	large stream (>15m width) °	>2.5	1.0-2.5
Width-to-depth Ratio (in riffles)	<15	15-30	>30
Silt, Sand & Organics (% area in riffles)	<10	10-20	>20
Gravel (% area in riffles)	\$35	15-34	<15
Shade	stream width <12m	>70	60-70
°	stream width >12m °	>60	50-60
(reach average %)			<50
LWD (pieces/100m)	>20	10-20	<10
LWD (volume/100m)	>30	20-30	<20
"Key" Pieces LWD (#/100m) (>60cm dia. & ≥10m long)	>3	1-3	<1

Lower East Fork Coquille Subwatershed

Table H.1
Summary of 1997 stream habitat survey of mainstem Hantz Creek.

BENCHMARK CRITERIA	REACH #		
	1	2	3
Pool Area (%)	87.8	21.9	5.7
Pool Frequency (channel widths/pool)	17.4	15.7	46.5
Residual Pool Depth (m) (pool depth - riffle depth)	0.52	0.49	0.49
Complex Pools (# with wood complexity >3/km)	0.0	5.0	0.0
Width-to-depth Ratio (in riffles)	18	7.7	4.7*
Silt, Sand & Organics (% area in riffles)	30	20	15*
Gravel (% area in riffles)	70	72	20*
Shade (reach average %)	90	99	100
LWD (pieces/100m)	5.9	30.3	18.6
LWD (volume/100m)	1.9	14.1	8.8
"Key" Pieces LWD (#/100m) (>60cm dia. & \geq 10m long)	0.0	0.1	0.0

* Reach means substituted in the absence of riffles.



Lower East Fork Coquille Subwatershed

Table H.2
Summary of 1997 stream habitat survey of mainstem Steel Creek.

BENCHMARK CRITERIA	REACH #		
	1	2	3
Pool Area (%)	47.6	44.6	20.2
Pool Frequency (channel widths/pool)	4.3 [‡]		13.8
Residual Pool Depth (m) (pool depth - riffle depth)	0.41		0.65
Complex Pools (# with wood complexity >3/km)	0.8	9.1	0.5
Width-to-depth Ratio (in riffles)	20.0	0.52	6.0
Silt, Sand & Organics (% area in riffles)	12	6	10
Gravel (% area in riffles)	56	22	85
Shade (reach average %)	89	88	91
LWD (pieces/100m)	13.2	11.1	15.6
LWD (volume/100m)	18.3	21.5	68.8
“Key” Pieces LWD (#/100m) (>60cm dia. & \geq 10m long)	0.2	1.2	2.1

[‡] Not rated, outside of benchmarks.



Lower East Fork Coquille Subwatershed

Table H.3
Summary of 1997 stream habitat survey of mainstem Weekly Creek.

BENCHMARK CRITERIA	REACH #							
	1	2	3	4	5	6	Trib A	Trib B
Pool Area (%)	71.7	60.1	62.1	50.6	28.8	8.6	23.5	17.8
Pool Frequency (channel widths/pool)	8.6	5.5	5.8	6.0	15.0	39.5	10.9	19.2
Residual Pool Depth (m) (pool depth - riffle depth)	0.65	0.78	0.52	0.49	0.66	0.60	0.47	0.36
Complex Pools (# with wood complexity >3/km)	0.8	10.3	9.9	2.0	0.0	0.0	5.2	1.2
Width-to-depth Ratio (in riffles)	8.1	8.8	12.2	5.8*	5.0	5.0	5.0*	25.0
Silt, Sand & Organics (% area in riffles)	43	22	22	28*	15	10	38*	95
Gravel (% area in riffles)	57	50	27	17*	20	50	19*	5
Shade (reach average %)	82	98	94	95	99	96	96	100
LWD (pieces/100m)	6.1	21.2	28.7	17.9	14.0	18.3	12.6	10.4
LWD (volume/100m)	1.7	17.0	31.0	14.8	16.8	20.5	10.5	14.4
"Key" Pieces LWD (#/100m) (>60cm dia. & ≥10m long)	0.0	0.5	1.0	0.0	0.8	0.9	0.3	0.4

* Reach means substituted in the absence of riffles.



Elk Creek Subwatershed

Table H.4
Summary of 1997 stream habitat survey of mainstem Elk Creek.

BENCHMARK CRITERIA	REACH #				
	1	2	3	4	5
Pool Area (%)	74.3	66.3	59.1	61.2	24.2
Pool Frequency (channel widths/pool)	3.4 [‡]	5.4	4.0 [‡]	4.3 [‡]	18.8
Residual Pool Depth (m) (pool depth - riffle depth)	0.57	0.69	0.44	0.40	0.35
Complex Pools (# with wood complexity >3/km)	1.2	0.3	0.5	6.9	0.5
Width-to-depth Ratio (in riffles)	9.1	23.9	12.9	9.23	7.2*
Silt, Sand & Organics (% area in riffles)	23	19	14	19	15*
Gravel (% area in riffles)	65	29	24	39	14*
Shade (reach average %)	70	97	96	94	99
LWD (pieces/100m)	8.5	3.5	16.7	27.3	13.5
LWD (volume/100m)	5.1	2.1	29.8	48.9	25.9
"Key" Pieces LWD (#/100m) (>60cm dia. & ≥10m long)	0.1	0.0	1.0	2.4	1.2

* Reach means substituted in the absence of riffles.

‡ Not rated, outside scope of benchmarks.



Elk Creek Subwatershed

Table H.5
Summary of 1997 stream habitat survey of mainstem South Fork Elk Creek.

BENCHMARK CRITERIA	REACH #			
	1	2	3	4
Pool Area (%)	62.8	46.3	57.0	13.7
Pool Frequency (channel widths/pool)	3.4‡	5.6	4.5‡	16.6
Residual Pool Depth (m) (pool depth - riffle depth)	0.55	0.64	0.69	0.48
Complex Pools (# with wood complexity >3/km)	2.1	2.1	0.0	0.0
Width-to-depth Ratio (in riffles)	21.7	12.5	12.7	6.4*
Silt, Sand & Organics (% area in riffles)	16	15	16	9*
Gravel (% area in riffles)	47	39	27	17*
Shade (reach average %)	86	85	73	91
LWD (pieces/100m)	13.4	15.4	7.8	20.0
LWD (volume/100m)	13.6	51.0	10.8	63.9
"Key" Pieces LWD (#/100m) (>60cm dia. & ≥10m long)	0.3	2.3	0.4	2.0

* Reach means substituted in the absence of riffles.

‡ Not rated, outside scope of benchmarks.



Brummit Creek Subwatershed

Table H.6
Summary of 1997 stream habitat survey of mainstem Middle Fork Brummit Creek.

BENCHMARK CRITERIA	REACH #			
	1	2	3	4
Pool Area (%)	32.6	48.0	36.7	26.9
Pool Frequency (channel widths/pool)	9.2	7.7	10.9	16.6
Residual Pool Depth (m) (pool depth - riffle depth)	0.57	0.36	0.62	0.43
Complex Pools (# with wood complexity >3/km)	0.0	1.5	0.5	0.0
Width-to-depth Ratio (in riffles)	8.9*	8.0*	10.7	7.1*
Silt, Sand & Organics (% area in riffles)	4*	8*	24	35*
Gravel (% area in riffles)	13*	24*	63	26*
Shade (reach average %)	77	87	84	88
LWD (pieces/100m)	39.9	34.2	43.9	27.3
LWD (volume/100m)	174.2	425.0	258.4	320.6
"Key" Pieces LWD (#/100m) (>60cm dia. & ≥10m long)	2.5	6.3	4.0	9.3

* Reach means substituted in the absence of riffles.



Brummit Creek Subwatershed

Table H.7
Summary of 1992-3 stream habitat survey of West Fork Brummit Creek.

BENCHMARK CRITERIA	REACH #								
	500	500	500	500	400	400	4003	3004	Peeve
Pool Area (%)	77.9	39.2	64.7	64.1	43.9	33.4	51.0	54.5	32.0
Pool Frequency (channel widths/pool)	3.91	3.33	1.81	2.82	4.0	5.96	3.74	6.1	11.0
Residual Pool Depth (m) (pool depth - riffle depth)	0.76	0.64	0.76	0.64	0.51	0.59	0.40	0.47	0.6
Complex Pools (# with wood complexity >3/km)					21	6.9		14.9	
Width-to-depth Ratio (in riffles)	22.0	29.6	38.5	26.7	25.2	36.3	29.5	20.0	19.0
Silt, Sand & Organics (% area in riffles)	44.1	6.0	5.5	6.1	3.0	0.0	1.9	3.0	1.0
Gravel (% area in riffles)	53.6	33.2	46.0	55.2	54.0	48.0	51.0	55.0	12.0
Shade (reach average %)	11.3	60.0	88.3	55.0	61.3	95.0	95.0	95.0	98.0
LWD (pieces/100m)	32.5	21.8	34.5	33.4	35.6	37.9	41.9	20.9	9.2
LWD (volume/100m)									
"Key" Pieces LWD (#/100m) (>60cm dia. & ≥10m long)									

Good 

Fair 

Poor 

Brewster Canyon Subwatershed

Table H.8
Summary of 1997 stream habitat survey of mainstem Bills Creek.

BENCHMARK CRITERIA	REACH #
	1
Pool Area (%)	3.8
Pool Frequency (channel widths/pool)	47.6
Residual Pool Depth (m)	0.44
Complex Pools (# with wood complexity >3/km)	0.0
Width-to-depth Ratio (in riffles)	7.2*
Silt, Sand & Organics (% area in riffles)	15*
Gravel (% area in riffles)	15*
Shade (reach average %)	99
LWD (pieces/100m)	10.7
LWD (volume/100m)	27.5
"Key" Pieces LWD (#/100m) (>60cm dia. & \geq 10m long)	1.3

* Reach means substituted in the absence of riffles.



Brewster Canyon Subwatershed

Table H.9
Summary of 1997 stream habitat survey of mainstem China Creek.

BENCHMARK CRITERIA	REACH #		
	1	2	Trib A
Pool Area (%)	31.5	17.4	15.1
Pool Frequency (channel widths/pool)	6.4	22.7	21.5
Residual Pool Depth (m) (pool depth - riffle depth)	0.54	0.81	0.54
Complex Pools (# with wood complexity >3/km)	0.0	0.0	0.0
Width-to-depth Ratio (in riffles)	8.0*	6.6*	6.3*
Silt, Sand & Organics (% area in riffles)	7*	6*	6*
Gravel (% area in riffles)	16*	11*	13*
Shade (reach average %)	93	95	93
LWD (pieces/100m)	15.4	21.3	15.6
LWD (volume/100m)	37.9	91.1	37.3
"Key" Pieces LWD (#/100m) (>60cm dia. & \geq 10m long)	0.9	3.9	1.5

* Reach means substituted in the absence of riffles.



Brewster Canyon Subwatershed

Table H.10
Summary of 1997 stream habitat survey of mainstem Dead Horse Creek.

BENCHMARK CRITERIA	REACH #		
	1	2	3
Pool Area (%)	26.1	2.6	22.7
Pool Frequency (channel widths/pool)	8.5	88.1	25.0
Residual Pool Depth (m) (pool depth - riffle depth)	0.58	0.35	0.54
Complex Pools (# with wood complexity >3/km)	1.9	0.0	0.9
Width-to-depth Ratio (in riffles)	14.0	10.7*	5.7
Silt, Sand & Organics (% area in riffles)	41	18*	50
Gravel (% area in riffles)	34	21*	37
Shade (reach average %)	98	96	100
LWD (pieces/100m)	18.6	17.8	33.2
LWD (volume/100m)	31.9	20.3	79.6
"Key" Pieces LWD (#/100m) (>60cm dia. & \geq 10m long)	1.5	0.6	2.6

* Reach means substituted in the absence of riffles.



Camas Creek Subwatershed

Table H.11
Summary of 1991, 1992, & 1994 stream habitat survey of Camas Creek.

BENCHMARK CRITERIA	REACH #								
	1	2	3	4	5	6	Trib A	S. Fork	S. Fork Trib A
Pool Area (%)	35.6	33.1	32.0	38.9	42.7	47.2	45.0	15.6	4.9
Pool Frequency (channel widths/pool)	3.9	2.8	3.6	3.5	4.6	4.8	3.2	30.1	76.6
Residual Pool Depth (m) (pool depth - riffle depth)	0.65	0.87	0.72	0.47	0.60	0.52	0.55	0.70	0.45
Complex Pools (# with wood complexity >3/km)								0.0	0.0
Width-to-depth Ratio (in riffles)	29.9	27.3	27.7	35.2	24.1	33.2	15.0	13.1	14.0
Silt, Sand & Organics (% area in riffles)	3	2	3	6	7	11	24	80	14
Gravel (% area in riffles)	27	3	15	17	21	23	5	10	48
Shade (reach average %)	84	70	83	87	94	83	59	94	92
LWD (pieces/100m)	27	38	26	21	29	44	69	32.8	41.3
LWD (volume/100m)								157.4	163.5
"Key" Pieces LWD (#/100m) (>60cm dia. & ≥10m long)								10.1	8.9

* Reach means substituted in the absence of riffles.



Upper East Fork Coquille Subwatershed

Table H.12
Summary of 1997 stream habitat survey of mainstem Knepper Creek.

BENCHMARK CRITERIA	REACH #	
	1	2
Pool Area (%)	55.7	36.0
Pool Frequency (channel widths/pool)	6.0	26.4
Residual Pool Depth (m) (pool depth - riffle depth)	0.6	0.95
Complex Pools (# with wood complexity >3/km)	4.3	0.9
Width-to-depth Ratio (in riffles)	3.9	7.3
Silt, Sand & Organics (% area in riffles)	77	80
Gravel (% area in riffles)	23	15
Shade (reach average %)	88	100
LWD (pieces/100m)	29.6	10.2
LWD (volume/100m)	72.7	19.3
“Key” Pieces LWD (#/100m) (>60cm dia. & ≥10m long)	1.2	0.3



Upper East Fork Coquille Subwatershed

Table H.13
Summary of 1993 stream habitat survey of mainstem Lost Creek.

BENCHMARK CRITERIA	REACH #	
	1	2
Pool Area (%)	37.1	43.4
Pool Frequency (channel widths/pool)	7.5	7.6
Residual Pool Depth (m) (pool depth - riffle depth)	0.98	0.44
Complex Pools (# with wood complexity >3/km)	0	0
Width-to-depth Ratio (in riffles)	22.6	29.0
Silt, Sand & Organics (% area in riffles)	10	17
Gravel (% area in riffles)	48	21
Shade (reach average %)	91	100
LWD (pieces/100m)	65.1	14.4
LWD (volume/100m)	247.4	16.1
“Key” Pieces LWD (#/100m) (>60cm dia. & ≥10m long)	14.4	0.7

