

Table 6. Subbasin summary statistics for selected parameters by Rosgen channel type in Upper North Fork Skykomish subbasin. Bolded parameters are depicted graphically in relationship to selected habitat condition criteria.

Subbasin		Upper North Fork Skykomish				
Rosgen channel type		Aa+	A	B	C	D
Channel	Channel gradient range (%)	> 10	4 - 10	2 - 3.9	< 2	< 4
	Surveyed length (km)	0.45	1.89	1.74	2.31	1.76
	Total channel length (km)	9.55	21.31	10.99	9.16	5.44
	Mean bankfull width, CW (m)	8.2	14.1	32.4	33.4	28.0
<b>Mean pool frequency (pools/km)</b>		<b>42</b>	<b>72</b>	<b>17</b>	<b>9</b>	<b>20</b>
Pools	Standard dev. of pool freq. (pools/km)	13	29	12	3	20
	Mean pool frequency (pools/CW)	0.43	0.99	0.47	0.25	0.54
	Standard dev. of pool freq. (pools/CW)	0.19	0.36	0.27	0.07	0.39
	Mean functional pool area (m <sup>2</sup> )	19.6	35.9	216.0	184.9	81.4
	Standard dev. of functional pool area	27.3	43.5	297.4	147.9	206.4
	<b>Mean wetted pool surface area (%)</b>	<b>27.3</b>	<b>38.3</b>	<b>33.5</b>	<b>19.9</b>	<b>13.2</b>
	Standard dev. of pool surface area (%)	21.1	7.8	23.8	13.6	3.5
	Mean secondary channel area (%)	0.9	2.4	0	5.5	31.8
Wood	Mean LWD frequency (pieces/km)	46	31	30	41	76
	Mean woody debris freq. (pieces/km), all wood	270	187	101	189	420
	<b>Mean LWD frequency (pieces/CW)</b>	<b>0.47</b>	<b>0.58</b>	<b>0.91</b>	<b>1.19</b>	<b>2.41</b>
	Standard dev. of LWD freq. (pieces/CW)	0.05	0.62	0.47	1.12	0.04
	Mean LWD and Stump freq. (pieces/CW)	0.75	0.71	1.04	1.38	3.73
	<b>Mean woody debris freq. (pieces/CW)</b>	<b>2.63</b>	<b>3.76</b>	<b>2.97</b>	<b>5.46</b>	<b>13.85</b>
	Standard dev. of woody debris freq. (pieces/CW)	1.40	4.31	0.58	2.66	2.58
	Conifer LWD (%), pooled value *	100	88	79	84	79
Mean of decay class, pooled value *	3.8	3.2	3.8	3.7	3.9	
Instability	<b>Mean streambank instability (%)</b>	<b>0</b>	<b>0.3</b>	<b>3.5</b>	<b>1.3</b>	<b>3.2</b>
	Standard dev. of instability (%)	0	0.6	4.9	1.3	4.2
	<b>Mean bank hydromodifications (%)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9.9</b>	<b>10.8</b>
	Standard dev. of hydromodifications (%)	0	0	0	17.2	14.8
Sediment	<b>Mean surface fine sediment (% &lt;6.3 mm)</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>16</b>	<b>27</b>
	Standard deviation of surface fine sediment (%)	2	6	0	22	24

\* Pooled values are calculated from all unit reaches sampled within each Rosgen channel type.

a

Table 7. Subbasin summary statistics for selected parameters by Rosgen channel type in Lake Stevens subbasin. Bolded parameters are depicted graphically in relationship to selected habitat condition criteria.

Subbasin		Lake Stevens	
Channel	Rosgen channel type	B	C
	Channel gradient range (%)	2 - 3.9	< 2
	Surveyed length (km)	0.0	2.44
	Total channel length (km)	0.91	10.99
	Mean bankfull width, CW (m)		3.1
Pools	<b>Mean pool frequency (pools/km)</b>		<b>24</b>
	Standard dev. of pool freq. (pools/km)		19
	Mean pool frequency (pools/CW)		0.08
	Standard dev. of pool freq. (pools/CW)		0.07
	Mean functional pool area (m <sup>2</sup> )		67.0
	Standard dev. of functional pool area		211.1
	<b>Mean wetted pool surface area (%)</b>		<b>67.8</b>
	Standard dev. of pool surface area (%)		33.1
	Mean secondary channel area (%)		0.2
	Wood	Mean LWD frequency (pieces/km)	
Mean woody debris freq. (pieces/km), all wood			46
<b>Mean LWD frequency (pieces/CW)</b>			<b>0.01</b>
Standard dev. of LWD freq. (pieces/CW)			0.02
Mean LWD and Stump freq. (pieces/CW)			0.02
<b>Mean woody debris freq. (pieces/CW)</b>			<b>0.17</b>
Standard dev. of woody debris freq. (pieces/CW)			0.24
Conifer LWD (%), pooled value *			27
Mean of decay class, pooled value *		2.7	
Instability	<b>Mean streambank instability (%)</b>		<b>12.0</b>
	Standard dev. of instability (%)		15.2
	<b>Mean bank hydromodifications (%)</b>		<b>10.8</b>
	Standard dev. of hydromodifications (%)		35.7
Sediment	<b>Mean surface fine sediment (% &lt;6.3 mm)</b>		<b>59</b>
	Standard deviation of surface fine sediment (%)		42

\* Pooled values are calculated from all unit reaches sampled within each Rosgen channel type.

a

Table 8. Subbasin summary statistics for selected parameters by Rosgen channel type in French Creek subbasin. Bolded parameters are depicted graphically in relationship to selected habitat condition criteria.

<b>Subbasin</b>		<b>French Creek</b>			
		A	B	C	X
Channel	Rosgen channel type	A	B	C	X
	Channel gradient range (%)	4 - 10	2 - 3.9	< 2	<2
	Surveyed length (km)	1.56	2.21	5.00	1.84
	Total channel length (km)	7.10	10.55	19.49	26.82
Mean bankfull width, CW (m)		3.1	2.7	2.9	3.6
<b>Mean pool frequency (pools/km)</b>		<b>3</b>	<b>19</b>	<b>19</b>	<b>12</b>
Standard dev. of pool freq. (pools/km)		8	21	23	19
Mean pool frequency (pools/CW)		0.01	0.05	0.06	0.04
Pools	Standard dev. of pool freq. (pools/CW)	0.03	0.05	0.09	0.06
	Mean functional pool area (m <sup>2</sup> )	6.2	4.6	99.8	32.4
	Standard dev. of functional pool area	4.5	4.5	561.0	26.2
	<b>Mean wetted pool surface area (%)</b>	<b>2.2</b>	<b>12.3</b>	<b>29.1</b>	<b>18.5</b>
Standard dev. of pool surface area (%)		4.6	15.4	35.3	25.0
Mean secondary channel area (%)		0.4	1.8	0.5	0
Mean LWD frequency (pieces/km)		15	15	13	0
Mean woody debris freq. (pieces/km), all wood		149	159	134	6
<b>Mean LWD frequency (pieces/CW)</b>		<b>0.05</b>	<b>0.04</b>	<b>0.04</b>	<b>0</b>
Wood	Standard dev. of LWD freq. (pieces/CW)	0.05	0.04	0.06	0
	Mean LWD and Stump freq. (pieces/CW)	0.06	0.04	0.05	0
	<b>Mean woody debris freq. (pieces/CW)</b>	<b>0.45</b>	<b>0.42</b>	<b>0.43</b>	<b>0.02</b>
	Standard dev. of woody debris freq. (pieces/CW)	0.35	0.34	0.49	0.06
Conifer LWD (%), pooled value *		63	50	40	ND
Mean of decay class, pooled value *		4.0	4.3	3.7	ND
Instability	<b>Mean streambank instability (%)</b>	<b>7.4</b>	<b>3.1</b>	<b>3.6</b>	<b>17.8</b>
	Standard dev. of instability (%)	9.1	6.0	10.7	22.5
	<b>Mean bank hydromodifications (%)</b>	<b>6.5</b>	<b>1.2</b>	<b>2.5</b>	<b>3.0</b>
Standard dev. of hydromodifications (%)		18.5	6.3	8.9	10.9
Sediment	<b>Mean surface fine sediment (% &lt;6.3 mm)</b>	<b>14</b>	<b>10</b>	<b>34</b>	<b>42</b>
	Standard deviation of surface fine sediment (%)	18	15	37	20

\* Pooled values are calculated from all unit reaches sampled within each Rosgen channel type.

a

Table 9. Subbasin summary statistics for selected parameters by Rosgen channel type in Stillaguamish Canyon subbasin. Bolded parameters are depicted graphically in relationship to selected habitat condition criteria.

Subbasin		Stillaguamish Canyon			
Channel	Rosgen channel type	Aa+	A	C	F*
	Channel gradient range (%)	> 10	4 -10	< 2	< 2
	Surveyed length (km)	0.29	0.0	1.28	0.0
	Total channel length (km)	0.89	0.52	2.99	10.81
	Mean bankfull width, CW (m)	4.5		3.8	
Pools	<b>Mean pool frequency (pools/km)</b>	<b>62</b>		<b>40</b>	
	Standard dev. of pool freq. (pools/km)	28		22	
	Mean pool frequency (pools/CW)	0.28		0.16	
	Standard dev. of pool freq. (pools/CW)	0.07		0.10	
	Mean functional pool area (m <sup>2</sup> )	3.1		201.7	
	Standard dev. of functional pool area	1.4		451.5	
	<b>Mean wetted pool surface area (%)</b>	<b>20.3</b>		<b>88.8</b>	
	Standard dev. of pool surface area (%)	8.3		12.1	
	Mean secondary channel area (%)	0		0.1	
	Wood	Mean LWD frequency (pieces/km)	26		22
Mean woody debris freq. (pieces/km), all wood		310		338	
<b>Mean LWD frequency (pieces/CW)</b>		<b>0.13</b>		<b>0.09</b>	
Standard dev. of LWD freq. (pieces/CW)		0.09		0.08	
Mean LWD and Stump freq. (pieces/CW)		0.17		0.11	
<b>Mean woody debris freq. (pieces/CW)</b>		<b>1.47</b>		<b>1.32</b>	
Standard dev. of woody debris freq. (pieces/CW)		0.05		0.65	
Conifer LWD (%), pooled value **		100		50	
Mean of decay class, pooled value **	4.8		4.8		
Instability	<b>Mean streambank instability (%)</b>	<b>0</b>		<b>8.7</b>	
	Standard dev. of instability (%)	0		14.9	
	<b>Mean bank hydromodifications (%)</b>	<b>0</b>		<b>0.9</b>	
	Standard dev. of hydromodifications (%)	0		2.8	
Sediment	<b>Mean surface fine sediment (% &lt;6.3 mm)</b>	<b>38</b>		<b>61</b>	
	Standard deviation of surface fine sediment (%)	12		32	

\* F channel type in South Fork Stillaguamish River was determined to be not-wadeable.

\*\* Pooled values are calculated from all unit reaches sampled within each Rosgen channel type.

a

Table 10. Subbasin summary statistics for selected parameters by Rosgen channel type in Grandview subbasin. Bolded parameters are depicted graphically in relationship to selected habitat condition criteria.

Subbasin		Grandview *			
Channel	Rosgen channel type	Aa+	A	B	C
	Channel gradient range (%)	> 10	4 - 10	2 - 3.9	< 2
	Surveyed length (km)	0.38	2.45	1.53	0.98
	Total channel length (km)	1.70	10.81	4.47	3.18
	Mean bankfull width, CW (m)	6.0	6.1	5.7	4.4
<b>Mean pool frequency (pools/km)</b>		<b>39</b>	<b>32</b>	<b>26</b>	<b>59</b>
Pools	Standard dev. of pool freq. (pools/km)	10	22	12	22
	Mean pool frequency (pools/CW)	0.24	0.19	0.16	0.25
	Standard dev. of pool freq. (pools/CW)	0.10	0.11	0.09	0.09
	Mean functional pool area (m <sup>2</sup> )	5.2	6.3	11.3	13.2
	Standard dev. of functional pool area	2.3	7.3	7.5	16.2
	<b>Mean wetted pool surface area (%)</b>	<b>14.9</b>	<b>17.7</b>	<b>20.2</b>	<b>50.2</b>
	Standard dev. of pool surface area (%)	5.6	10.9	14.0	7.7
	Mean secondary channel area (%)	0.1	5.8	0.2	2.5
Wood	Mean LWD frequency (pieces/km)	24	25	17	4
	Mean woody debris freq. (pieces/km), all wood	331	368	261	151
	<b>Mean LWD frequency (pieces/CW)</b>	<b>0.13</b>	<b>0.16</b>	<b>0.09</b>	<b>0.02</b>
	Standard dev. of LWD freq. (pieces/CW)	0.10	0.16	0.09	0.02
	Mean LWD and Stump freq. (pieces/CW)	0.29	0.27	0.13	0.02
	<b>Mean woody debris freq. (pieces/CW)</b>	<b>1.94</b>	<b>2.32</b>	<b>1.48</b>	<b>0.67</b>
	Standard dev. of woody debris freq. (pieces/CW)	0.17	1.20	0.39	0.38
	Conifer LWD (%), pooled value **	18	39	42	0
	Mean of decay class, pooled value **	3.4	3.3	3.3	4.2
Instability	<b>Mean streambank instability (%)</b>	<b>11.0</b>	<b>7.4</b>	<b>7.3</b>	<b>4.9</b>
	Standard dev. of instability (%)	10.4	5.9	8.6	3.9
	<b>Mean bank hydromodifications (%)</b>	<b>0</b>	<b>1.8</b>	<b>1.8</b>	<b>0</b>
	Standard dev. of hydromodifications (%)	0	6.4	3.0	0
Sediment	<b>Mean surface fine sediment (% &lt;6.3 mm)</b>	<b>39</b>	<b>37</b>	<b>19</b>	<b>19</b>
	Standard deviation of surface fine sediment (%)	14	15	6	9

\* Grandview subbasin will be included in the new Lower North Fork Stillaguamish subbasin.

\*\* Pooled values are calculated from all unit reaches sampled within each Rosgen channel

a