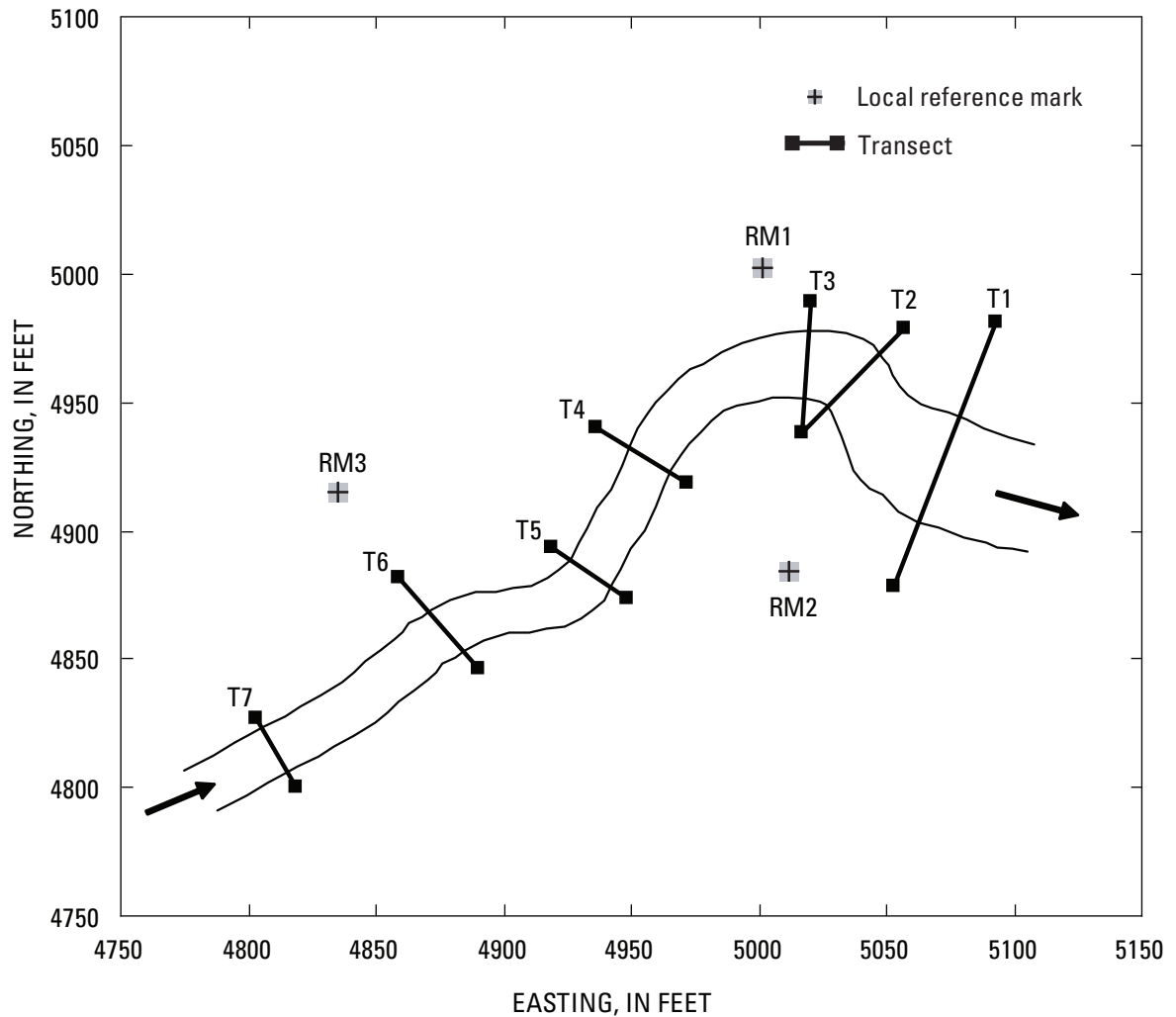


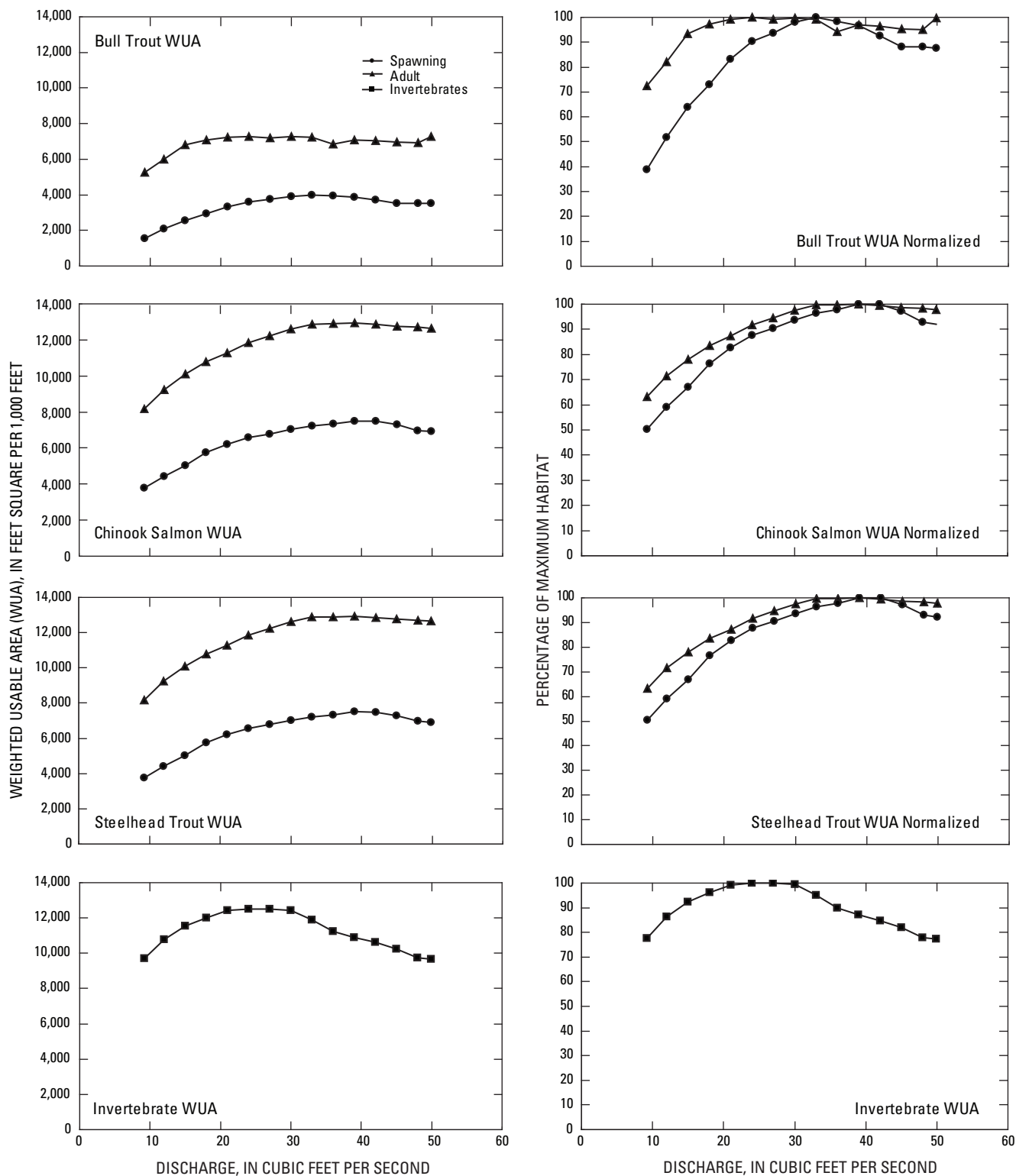
**Appendix A.** Plan view, weighted usable areas, and passage criteria assessments for bull trout, Chinook salmon, steelhead trout, and invertebrates for lower Big Boulder Creek (BB1), upper Salmon River Basin, Idaho, 2005.



Transect Endpoint Coordinates (NAD 83)			Transect Endpoint Coordinates (NAD 83)		
Point	Latitude	Longitude	Point	Latitude	Longitude
LH1	44° 6' 57.48" N	114° 26' 4.92" W	RH4	44° 6' 58.35" N	114° 26' 6.21" W
RH1	44° 6' 58.35" N	114° 26' 3.99" W	LH5	44° 6' 57.7" N	114° 26' 6.32" W
LH2	44° 6' 58.14" N	114° 26' 5.14" W	RH5	44° 6' 57.97" N	114° 26' 6.65" W
RH2	44° 6' 58.41" N	114° 26' 4.45" W	LH6	44° 6' 57.59" N	114° 26' 7.14" W
LH3	44° 6' 58.14" N	114° 26' 5.14" W	RH6	44° 6' 58.02" N	114° 26' 7.45" W
RH3	44° 6' 58.61" N	114° 26' 4.89" W	LH7	44° 6' 57.37" N	114° 26' 8.24" W
LH4	44° 6' 58.06" N	114° 26' 5.83" W	RH7	44° 6' 57.66" N	114° 26' 8.35" W

For reference only; stream schematic not to scale.

**Figure A1.** Plan view of lower Big Boulder Creek (BB1), upper Salmon River Basin, Idaho, 2005.

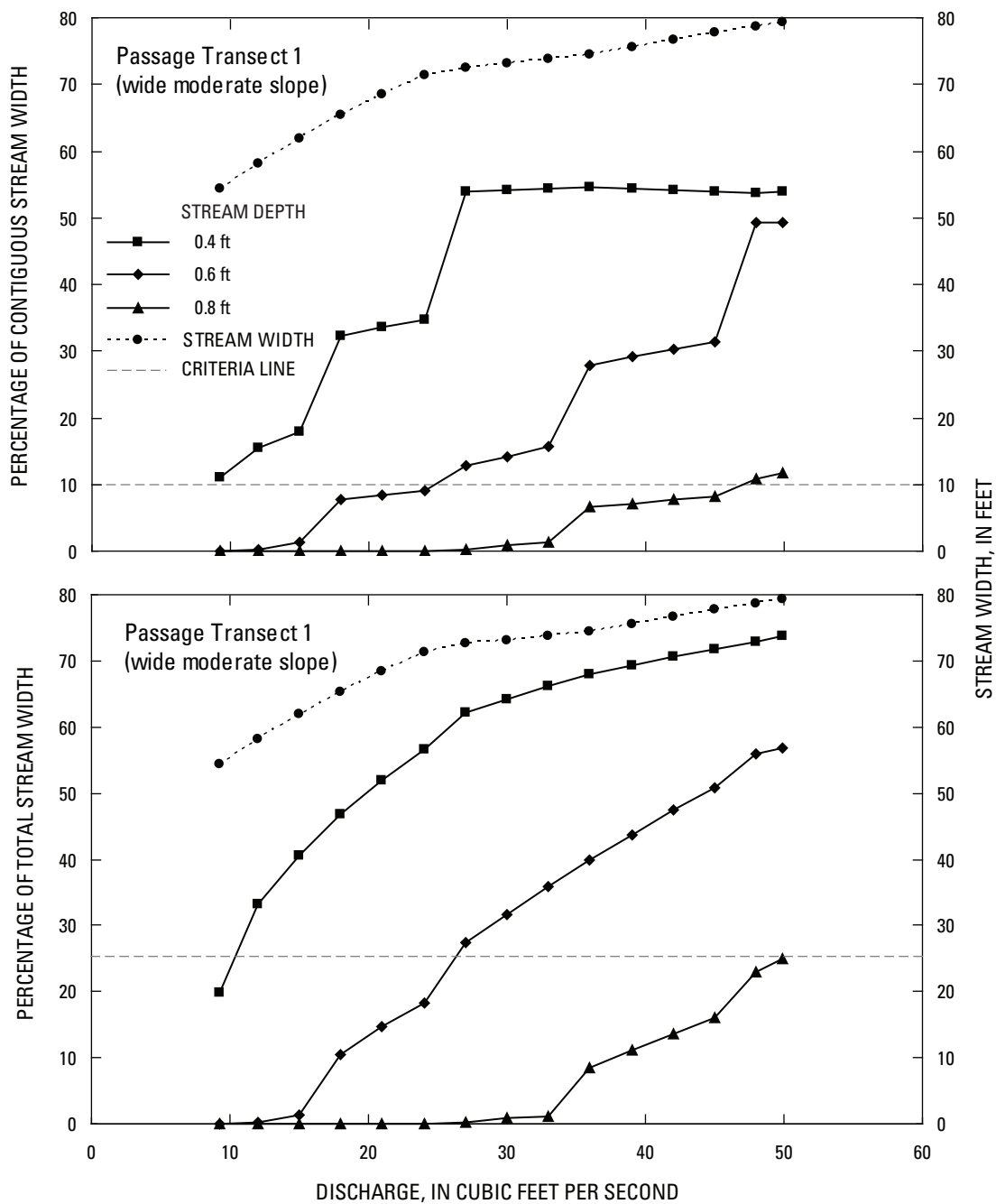


**Figure A2.** Weighted usable area and percentage of maximum habitat for bull trout, chinook salmon, steelhead trout, and invertebrates, site BB1, lower Big Boulder Creek, upper Salmon River Basin, Idaho, 2005.

**Table A1.** Weighted usable area for bull trout, Chinook salmon, steelhead trout life stages, and Ephemeroptera, Plecoptera, and Trichoptera (EPT) invertebrates, site BB1, lower Big Boulder Creek, upper Salmon River Basin, Idaho, 2005.

[Site location shown in [figure 4](#). **Abbreviations:** WUA, weighted usable area; ft<sup>3</sup>/s, cubic foot per second; ft<sup>2</sup>, square foot; ft<sup>2</sup>/1,000 ft, square foot per 1,000 feet]

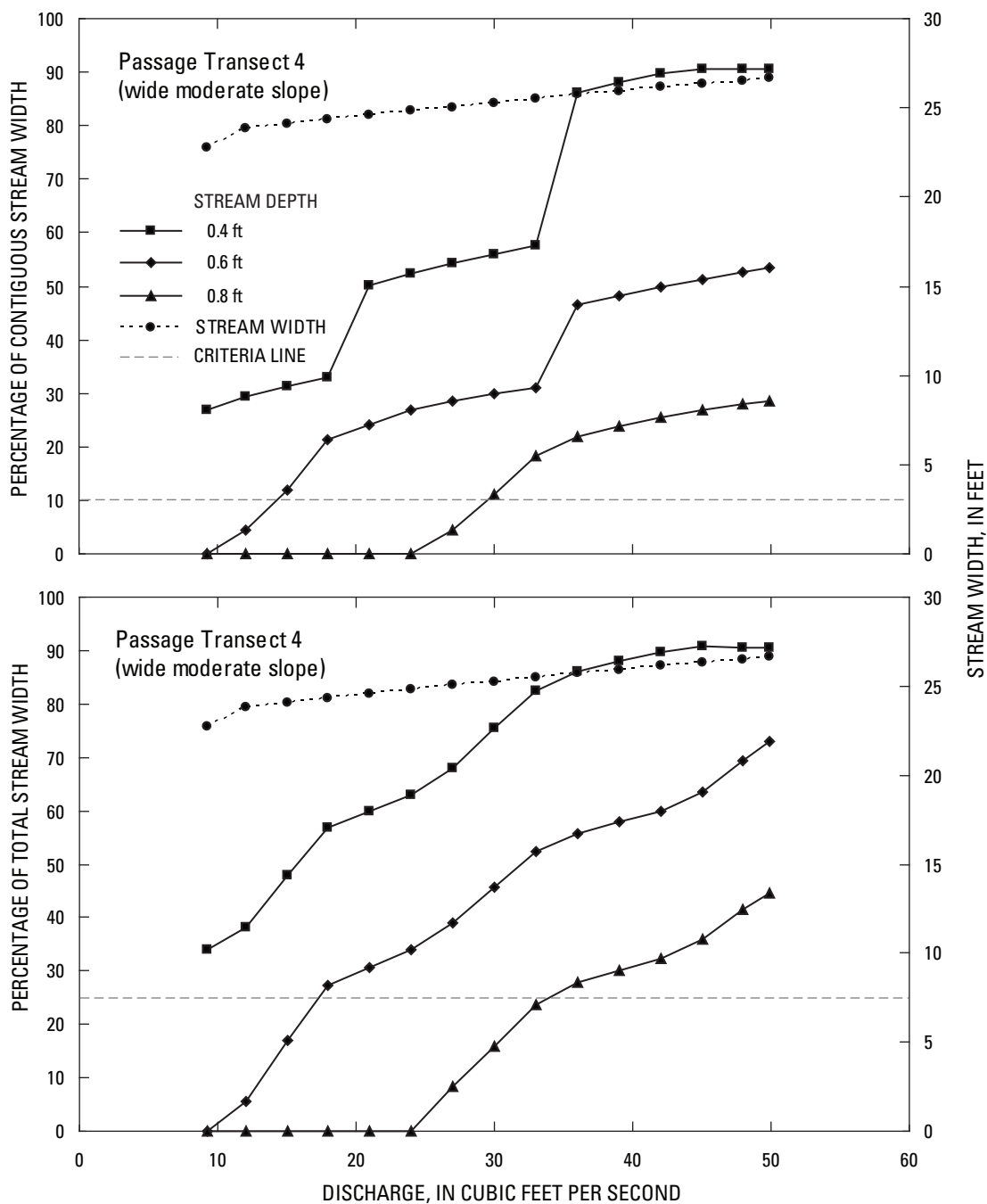
Discharge (ft <sup>3</sup> /s)	Total area (ft <sup>2</sup> )	Summary of WUA (ft <sup>2</sup> /1,000 ft)		Percentage of maximum habitat		Discharge (ft <sup>3</sup> /s)	Total area (ft <sup>2</sup> )	Summary of WUA (ft <sup>2</sup> /1,000 ft)		Percentage of maximum habitat	
		Adult	Spawning	Adult	Spawning			Adult	Spawning	Adult	Spawning
Bull trout						Steelhead trout					
9.240	21,037	5,279	1,558	72.5	38.9	9.2	21,037	8,163	3,777	63.2	50.4
12	21,913	5,976	2,069	82.1	51.7	12	21,913	9,240	4,424	71.5	59.0
15	22,509	6,796	2,552	93.4	63.8	15	22,509	10,088	5,021	78.1	66.9
18	23,059	7,070	2,926	97.2	73.1	18	23,059	10,794	5,738	83.5	76.5
21	23,564	7,225	3,330	99.3	83.2	21	23,564	11,282	6,196	87.3	82.6
24	24,048	7,277	3,612	100.0	90.3	24	24,048	11,854	6,577	91.7	87.7
27	24,474	7,209	3,744	99.1	93.6	27	24,474	12,228	6,790	94.6	90.5
30	24,931	7,266	3,920	99.8	98.0	30	24,931	12,604	7,025	97.5	93.7
33	25,405	7,214	4,001	99.1	100.0	33	25,405	12,871	7,229	99.6	96.4
36	26,393	6,861	3,934	94.3	98.3	36	26,393	12,902	7,337	99.8	97.8
39	27,200	7,061	3,864	97.0	96.6	39	27,200	12,923	7,501	100.0	100.0
42	27,506	7,023	3,701	96.5	92.5	42	27,506	12,850	7,492	99.4	99.9
45	27,794	6,944	3,526	95.4	88.1	45	27,794	12,757	7,292	98.7	97.2
48	28,071	6,921	3,527	95.1	88.1	48	28,071	12,700	6,971	98.3	92.9
49.900	28,245	7,258	3,505	99.7	87.6	49.900	28,245	12,645	6,906	97.9	92.1
Chinook salmon						Discharge (ft <sup>3</sup> /s)	Total area (ft <sup>2</sup> )	Summary of WUA (ft <sup>2</sup> /1,000 ft)	Percentage of maximum habitat		
9.2	21,037	8,163	3,777	63.2	50.4	9.240	21,037	9,709	77.6		
12	21,913	9,240	4,424	71.5	59.0	12	21,913	10,797	86.3		
15	22,509	10,088	5,021	78.1	66.9	15	22,509	11,536	92.2		
18	23,059	10,794	5,738	83.5	76.5	18	23,059	12,019	96.1		
21	23,564	11,282	6,196	87.3	82.6	21	23,564	12,410	99.2		
24	24,048	11,854	6,577	91.7	87.7	24	24,048	12,508	100.0		
27	24,474	12,228	6,790	94.6	90.5	27	24,474	12,506	100.0		
30	24,931	12,604	7,025	97.5	93.7	30	24,931	12,437	99.4		
33	25,405	12,871	7,229	99.6	96.4	33	25,405	11,908	95.2		
36	26,393	12,902	7,337	99.8	97.8	36	26,393	11,250	89.9		
39	27,200	12,923	7,501	100.0	100.0	39	27,200	10,912	87.2		
42	27,506	12,850	7,492	99.4	99.9	42	27,506	10,606	84.8		
45	27,794	12,757	7,292	98.7	97.2	45	27,794	10,237	81.8		
48	28,071	12,700	6,971	98.3	92.9	48	28,071	9,730	77.8		
49.900	28,245	12,645	6,906	97.9	92.1	49.900	28,245	9,654	77.2		



**Figure A3.** Percentages of contiguous and total stream width for passage transect 1, lower Big Boulder Creek (BB1), upper Salmon River Basin, Idaho, 2005.

**Table A2.** Passage criteria assessment for transect 1 (wide moderate slope), site BB1, lower Big Boulder Creek, upper Salmon River Basin, Idaho, 2005.[Site location shown in [figure 4](#). Abbreviations: ft, foot; ft<sup>3</sup>/s, cubic foot per second]

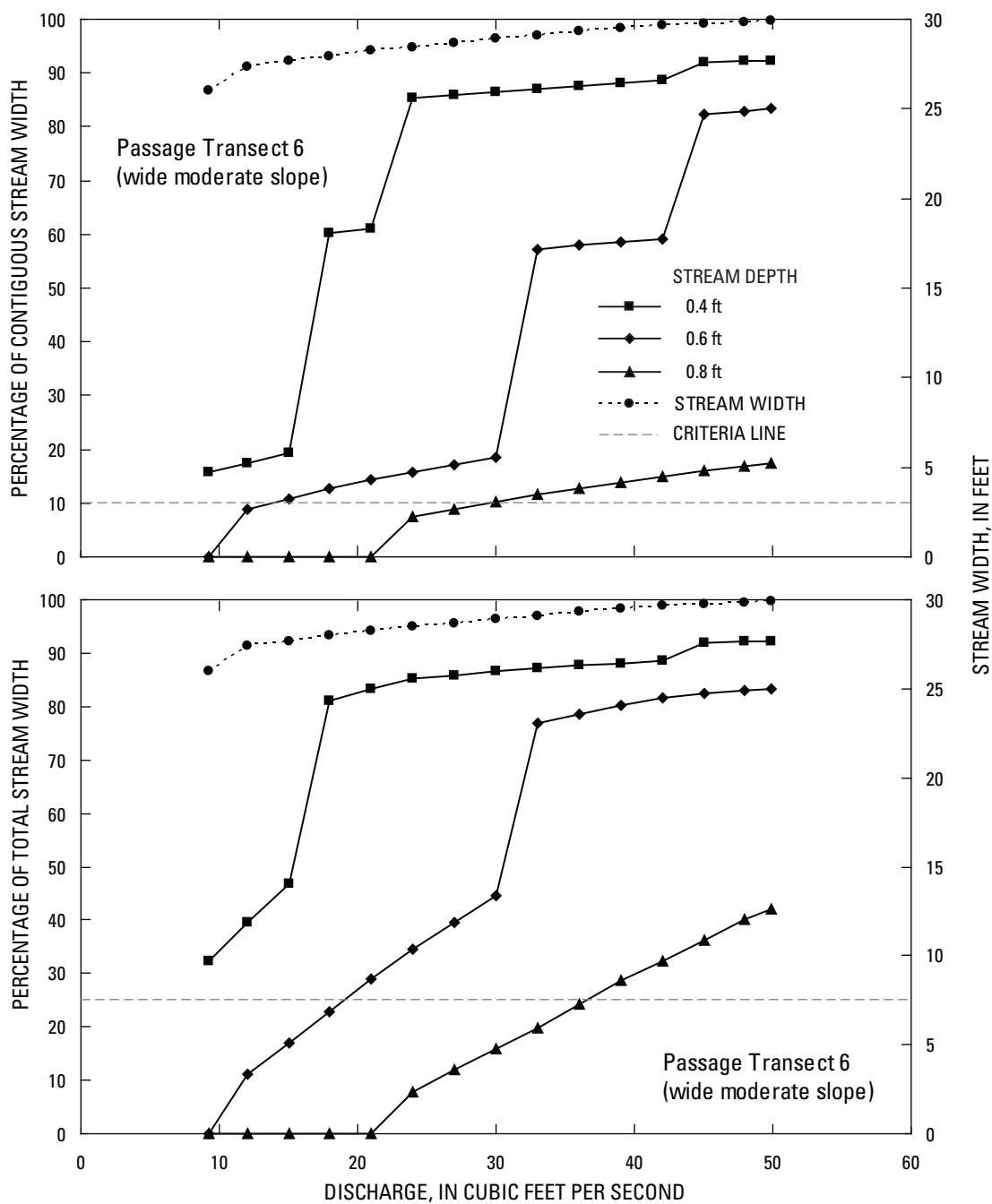
Discharge (ft³/s)	Stream width (ft)	Passage criteria assessment				Discharge (ft³/s)	Stream width (ft)	Passage criteria assessment			
		Total	Percentage	Contiguous	Percentage contiguous			Total	Percentage	Contiguous	Percentage contiguous
Stream widths greater than 0.4-ft depth						Stream widths greater than 0.8-ft depth					
9.2	54.3	10.7	19.7	5.9	10.9	9.2	54.3	0.0	0.0	0.0	0.0
12	58.1	19.2	33.1	9.0	15.5	12	58.1	0.0	0.0	0.0	0.0
15	61.9	25.1	40.6	11.1	17.9	15	61.9	0.0	0.0	0.0	0.0
18	65.4	30.6	46.8	21.1	32.3	18	65.4	0.0	0.0	0.0	0.0
21	68.4	35.6	52.0	22.9	33.5	21	68.4	0.0	0.0	0.0	0.0
24	71.3	40.3	56.6	24.7	34.6	24	71.3	0.0	0.0	0.0	0.0
27	72.5	45.0	62.1	39.1	53.9	27	72.5	0.2	0.3	0.2	0.3
30	73.2	47.0	64.2	39.6	54.1	30	73.2	0.6	0.8	0.6	0.8
33	73.8	48.8	66.1	40.1	54.3	33	73.8	0.9	1.2	0.9	1.2
36	74.4	50.5	67.9	40.5	54.5	36	74.4	6.2	8.4	4.9	6.5
39	75.6	52.4	69.3	41.0	54.3	39	75.6	8.4	11.2	5.4	7.1
42	76.7	54.1	70.6	41.4	54.1	42	76.7	10.5	13.7	5.9	7.7
45	77.7	55.8	71.8	41.9	53.9	45	77.7	12.5	16.0	6.4	8.2
48	78.7	57.4	72.9	42.3	53.8	48	78.7	18.1	22.9	8.6	10.9
49.9	79.3	58.5	73.7	42.7	53.8	49.9	79.3	19.8	25.0	9.2	11.6
Stream widths greater than 0.6-ft depth											
9.2	54.3	0.0	0.0	0.0	0.0						
12	58.1	0.2	0.3	0.2	0.3						
15	61.9	0.8	1.2	0.8	1.2						
18	65.4	6.9	10.5	5.0	7.7						
21	68.4	10.0	14.6	5.8	8.4						
24	71.3	13.0	18.2	6.5	9.1						
27	72.5	19.8	27.3	9.2	12.7						
30	73.2	23.2	31.7	10.4	14.2						
33	73.8	26.4	35.8	11.5	15.6						
36	74.4	29.6	39.8	20.7	27.9						
39	75.6	33.1	43.8	22.0	29.1						
42	76.7	36.3	47.4	23.2	30.3						
45	77.7	39.5	50.8	24.4	31.4						
48	78.7	44.0	56.0	38.9	49.4						
49.9	79.3	45.0	56.8	39.1	49.3						



**Figure A4.** Percentages of contiguous and total stream width for passage transect 4, lower Big Boulder Creek (BB1), upper Salmon River Basin, Idaho, 2005.

**Table A3.** Passage criteria assessment for transect 4 (wide moderate slope), site BB1, lower Big Boulder Creek, upper Salmon River Basin, Idaho, 2005.[Site location shown in [figure 4](#). Abbreviations: ft, foot; ft<sup>3</sup>/s, cubic foot per second]

Discharge (ft³/s)	Stream width (ft)	Passage criteria assessment				Discharge (ft³/s)	Stream width (ft)	Passage criteria assessment			
		Total	Percentage	Contiguous	Percentage contiguous			Total	Percentage	Contiguous	Percentage contiguous
Stream widths greater than 0.4-ft depth						Stream widths greater than 0.8-ft depth					
9.2	22.8	7.7	34.0	6.1	26.8	9.2	22.8	0.0	0.0	0.0	0.0
12	23.8	9.1	38.1	7.0	29.4	12	23.8	0.0	0.0	0.0	0.0
15	24.1	11.6	48.0	7.5	31.3	15	24.1	0.0	0.0	0.0	0.0
18	24.4	13.9	56.9	8.0	32.9	18	24.4	0.0	0.0	0.0	0.0
21	24.6	14.8	60.0	12.3	50.0	21	24.6	0.0	0.0	0.0	0.0
24	24.8	15.6	62.8	13.0	52.3	24	24.8	0.0	0.0	0.0	0.0
27	25.0	17.1	68.1	13.6	54.2	27	25.0	2.1	8.3	1.1	4.3
30	25.3	19.0	75.4	14.1	56.0	30	25.3	4.0	16.0	2.8	11.2
33	25.5	21.1	82.6	14.7	57.7	33	25.5	6.0	23.7	4.7	18.3
36	25.7	22.2	86.2	22.2	86.2	36	25.7	7.1	27.8	5.6	21.9
39	25.9	22.8	88.1	22.8	88.1	39	25.9	7.8	30.2	6.2	23.8
42	26.1	23.5	89.8	23.5	89.8	42	26.1	8.5	32.4	6.7	25.6
45	26.3	23.9	90.7	23.9	90.7	45	26.3	9.5	36.1	7.1	27.0
48	26.5	24.0	90.6	24.0	90.6	48	26.5	11.0	41.4	7.4	27.9
49.900	26.6	24.1	90.6	24.1	90.6	49.900	26.6	11.9	44.5	7.6	28.5
Stream widths greater than 0.6-ft depth											
9.2	22.8	0.0	0.0	0.0	0.0						
12	23.8	1.3	5.5	1.0	4.3						
15	24.1	4.1	16.9	2.8	11.8						
18	24.4	6.6	27.2	5.2	21.4						
21	24.6	7.5	30.7	5.9	24.2						
24	24.8	8.4	33.9	6.6	26.8						
27	25.0	9.8	39.0	7.2	28.6						
30	25.3	11.5	45.7	7.5	29.8						
33	25.5	13.3	52.3	7.9	31.0						
36	25.7	14.4	55.8	12.0	46.6						
39	25.9	15.0	57.9	12.5	48.3						
42	26.1	15.6	59.9	13.0	49.8						
45	26.3	16.7	63.6	13.5	51.2						
48	26.5	18.4	69.4	14.0	52.6						
49.900	26.6	19.4	72.9	14.2	53.5						



**Figure A5.** Percentages of contiguous and total stream width for passage transect 6, lower Big Boulder Creek (BB1), upper Salmon River Basin, Idaho, 2005.



**Table A4.** Passage criteria assessment for transect 6 (wide moderate slope), site BB1, lower Big Boulder Creek, upper Salmon River Basin, Idaho, 2005[Site location shown in [figure 4](#). Abbreviations: ft, foot; ft<sup>3</sup>/s, cubic foot per second]

Discharge (ft <sup>3</sup> /s)	Stream width (ft)	Passage criteria assessment				Discharge (ft <sup>3</sup> /s)	Stream width (ft)	Passage criteria assessment			
		Total	Percentage	Contiguous	Percentage contiguous			Total	Percentage	Contiguous	Percentage contiguous
Stream widths greater than 0.4-ft depth						Stream widths greater than 0.8-ft depth					
9.2	22.8	8.4	32.2	4.1	15.7	9.2	22.8	0.0	0.0	0.0	0.0
12	23.8	10.8	39.6	4.8	17.4	12	23.8	0.0	0.0	0.0	0.0
15	24.1	13.0	46.8	5.3	19.3	15	24.1	0.0	0.0	0.0	0.0
18	24.4	22.7	81.0	16.8	60.1	18	24.4	0.0	0.0	0.0	0.0
21	24.6	23.5	83.3	17.2	61.0	21	24.6	0.0	0.0	0.0	0.0
24	24.8	24.3	85.3	24.3	85.3	24	24.8	2.2	7.8	2.1	7.5
27	25.0	24.6	85.9	24.6	85.9	27	25.0	3.4	11.9	2.6	8.9
30	25.3	25.0	86.5	25.0	86.5	30	25.3	4.6	15.9	3.0	10.3
33	25.5	25.4	87.1	25.4	87.1	33	25.5	5.7	19.7	3.4	11.5
36	25.7	25.7	87.6	25.7	87.6	36	25.7	7.1	24.4	3.7	12.8
39	25.9	26.0	88.1	26.0	88.1	39	25.9	8.4	28.6	4.1	13.9
42	26.1	26.3	88.6	26.3	88.6	42	26.1	9.6	32.4	4.4	14.9
45	26.3	27.4	91.9	27.4	91.9	45	26.3	10.8	36.3	4.8	16.0
48	26.5	27.5	92.2	27.5	92.2	48	26.5	11.9	40.0	5.1	16.9
49.900	26.6	27.6	92.3	27.6	92.3	49.900	26.6	12.6	42.2	5.2	17.5
Stream widths greater than 0.6-ft depth											
9.2	22.8	0.0	0.0	0.0	0.0						
12	23.8	3.0	11.0	2.4	8.9						
15	24.1	4.7	16.9	3.0	10.9						
18	24.4	6.4	22.8	3.5	12.6						
21	24.6	8.1	28.8	4.0	14.2						
24	24.8	9.8	34.4	4.5	15.7						
27	25.0	11.4	39.6	4.9	17.1						
30	25.3	12.9	44.6	5.3	18.4						
33	25.5	22.4	76.8	16.7	57.3						
36	25.7	23.0	78.6	17.0	57.9						
39	25.9	23.6	80.2	17.3	58.5						
42	26.1	24.2	81.6	17.5	59.1						
45	26.3	24.5	82.3	24.5	82.3						
48	26.5	24.8	83.0	24.8	83.0						
49.900	26.6	25.0	83.4	25.0	83.4						