

Appendix A

Project Area and Reach Overview

1.1 Reach Summary

Data were gathered in GIS on the nine delineated reaches included in the assessment as well as the three city reaches that were excluded from the assessment. Reaches were delineated primarily on hydrologic and watershed characteristics, such as the confluence of a major tributary. The major anthropogenic feature of cities and their respective levees were also considered, and these were grouped into a separate category of reaches described in more detail in the main report. Table A-1 summarizes statistics for each prioritized reach including river and valley length, distance from the confluence measured from the downstream terminus, and sinuosity and reach average slope. Table A-2 summarizes statistics for each city reach including river and valley length, sinuosity, and reach average slope.

Table A-1
Reach Statistics for Prioritized Reaches

Reach	Valley Length (mi)	River Length (mi)	Tributary Of	River Length to Confluence (mi)	Sinuosity	Average Slope
Lower Mainstem	8.56	10.19	Walla Walla River	41.14	1.18	0.41%
Upper Mainstem	7.63	8.42	Walla Walla River	53.44	1.14	0.61%
Upper Coppei	5.10	5.91	Touchet River	2.20	1.16	1.26%
Lower North Fork	3.68	4.03	Touchet River	0.00	1.12	1.11%
Upper North Fork	10.39	11.35	Touchet River	4.03	1.09	2.11%
Lower Wolf Fork	2.52	2.92	North Fork	0.00	1.14	1.41%
Upper Wolf Fork	4.60	5.02	North Fork	2.92	1.09	2.23%
Robinson Fork	2.22	2.52	Wolf Fork	0.00	1.13	2.27%
South Fork	7.61	8.90	Touchet River	0.00	1.18	1.21%

Table A-2
Reach Statistics for City Reaches

Reach	Valley Length (mi)	River Length (mi)	Sinuosity	Average Slope
Touchet Waitsburg	1.73	2.11	1.21	0.49%
Touchet Dayton	2.82	3.16	1.11	0.81%
Coppei Waitsburg	1.71	2.20	1.30	0.62%

1.2 Project Area Summary

Project areas delineated for this assessment generally ranged from 0.5- to 2-mile increments depending on the stream order of the reach. Project areas were distinguished roughly by the geomorphic character, attempting to maintain uniform complexity and confinement characteristics within project areas. In particular, reaches with similarities in the characteristics of floodplain availability, apparent complexity, and channel slope were delineated into project areas. Table A-3 summarizes the statistics for each project area, including river and valley length, sinuosity, and slope. Valley mile start and river mile start are measured from the mouth of each fork.

Table A-3
Touchet Assessment Project Area Summary

Project Area	Reach	Valley Mile Start	Valley Length (mi)	River Mile Start	River Length (mi)	Sinuosity	Average Slope
MS-1	Lower Mainstem	33.49	1.00	41.14	1.00	1.00	0.39%
MS-2	Lower Mainstem	34.49	1.23	42.14	1.53	1.24	0.45%
MS-3	Lower Mainstem	35.72	1.50	43.67	1.67	1.11	0.37%
MS-4	Lower Mainstem	37.22	2.36	45.34	2.90	1.23	0.41%
MS-5	Lower Mainstem	39.58	1.32	48.24	1.43	1.08	0.46%
MS-6	Lower Mainstem	40.90	1.15	49.67	1.66	1.44	0.40%
MS-7	Touchet Waitsburg	42.05	1.12	51.33	1.42	1.26	0.44%
MS-8	Touchet Waitsburg	43.18	0.60	52.75	0.69	1.15	0.53%
MS-9	Upper Mainstem	43.78	0.88	53.44	1.26	1.43	0.54%
MS-10	Upper Mainstem	44.66	1.41	54.70	1.40	0.99	0.55%

Project Area	Reach	Valley Mile Start	Valley Length (mi)	River Mile Start	River Length (mi)	Sinuosity	Average Slope
MS-11	Upper Mainstem	46.07	0.60	56.09	0.87	1.44	0.60%
MS-12	Upper Mainstem	46.68	1.33	56.96	1.28	0.96	0.59%
MS-13	Upper Mainstem	48.01	0.67	58.24	0.67	1.01	0.65%
MS-14	Upper Mainstem	48.67	1.42	58.91	1.59	1.12	0.69%
MS-15	Upper Mainstem	50.10	1.31	60.50	1.36	1.03	0.61%
MS-16	Touchet Dayton	51.41	2.23	61.86	2.52	1.13	0.73%
MS-17	Touchet Dayton	53.64	0.58	64.38	0.64	1.10	0.89%
C-1	Coppei Waitsburg	0.00	0.91	0.00	1.01	1.11	0.44%
C-2	Coppei Waitsburg	0.91	0.80	1.01	1.19	1.49	0.80%
C-3	Upper Coppei	1.71	1.04	2.20	1.24	1.20	1.02%
C-4	Upper Coppei	2.74	1.63	3.44	1.82	1.11	1.16%
C-5	Upper Coppei	4.38	0.66	5.25	0.73	1.11	1.26%
C-6	Upper Coppei	5.04	0.86	5.99	1.03	1.20	1.47%
C-7	Upper Coppei	5.90	0.91	7.02	1.08	1.19	1.37%
NF-1	Lower North Fork	0.00	0.36	0.00	0.47	1.29	1.05%
NF-2	Lower North Fork	0.36	0.61	0.47	0.69	1.14	1.03%
NF-3	Lower North Fork	0.97	1.08	1.16	1.20	1.11	1.07%
NF-4	Lower North Fork	2.06	0.99	2.37	1.00	1.01	1.18%
NF-5	Lower North Fork	3.05	0.63	3.37	0.66	1.06	1.20%
NF-6	Upper North Fork	3.68	1.17	4.03	1.22	1.04	1.56%
NF-7	Upper North Fork	4.84	0.86	5.25	0.93	1.08	1.69%
NF-8	Upper North Fork	5.70	1.22	6.19	1.37	1.12	1.72%
NF-9	Upper North Fork	6.93	0.55	7.56	0.52	0.96	1.72%

Project Area	Reach	Valley Mile Start	Valley Length (mi)	River Mile Start	River Length (mi)	Sinuosity	Average Slope
NF-10	Upper North Fork	7.47	1.21	8.08	1.32	1.09	2.05%
NF-11	Upper North Fork	8.68	0.65	9.40	0.67	1.02	2.14%
NF-12	Upper North Fork	9.33	0.77	10.07	0.85	1.11	2.10%
NF-13	Upper North Fork	10.10	0.97	10.92	1.13	1.17	2.14%
NF-14	Upper North Fork	11.07	0.67	12.05	0.77	1.15	2.44%
NF-15	Upper North Fork	11.74	0.93	12.82	1.01	1.08	2.71%
NF-16	Upper North Fork	12.67	1.40	13.83	1.55	1.11	2.91%
WF-1	Lower Wolf Fork	0.00	0.64	0.00	0.69	1.07	1.41%
WF-2	Lower Wolf Fork	0.64	1.08	0.69	1.33	1.23	1.35%
WF-3	Lower Wolf Fork	1.72	0.80	2.01	0.91	1.13	1.47%
WF-4	Upper Wolf Fork	2.52	0.92	2.92	1.02	1.11	1.93%
WF-5	Upper Wolf Fork	3.44	0.69	3.94	0.76	1.09	1.99%
WF-6	Upper Wolf Fork	4.13	0.84	4.69	0.91	1.09	2.10%
WF-7	Upper Wolf Fork	4.97	0.90	5.61	1.02	1.13	2.17%
WF-8	Upper Wolf Fork	5.87	0.61	6.63	0.64	1.04	2.65%
WF-9	Upper Wolf Fork	6.48	0.64	7.27	0.67	1.06	2.52%
RF-1	Robinson Fork	0.00	0.62	0.00	0.73	1.17	1.96%
RF-2	Robinson Fork	0.62	0.49	0.73	0.60	1.24	2.04%
RF-3	Robinson Fork	1.11	0.54	1.33	0.58	1.08	2.28%
RF-4	Robinson Fork	1.65	0.58	1.91	0.60	1.05	2.79%
SF-1	South Fork	0.00	0.54	0.00	0.62	1.14	1.04%
SF-2	South Fork	0.54	1.15	0.62	1.36	1.19	1.10%
SF-3	South Fork	1.69	1.24	1.98	1.32	1.07	1.21%
SF-4	South Fork	2.93	1.09	3.30	1.34	1.23	1.22%
SF-5	South Fork	4.01	1.13	4.64	1.29	1.15	1.21%

Project Area	Reach	Valley Mile Start	Valley Length (mi)	River Mile Start	River Length (mi)	Sinuosity	Average Slope
SF-6	South Fork	5.14	0.51	5.93	0.68	1.33	1.28%
SF-7	South Fork	5.65	1.12	6.61	1.26	1.12	1.34%
SF-8	South Fork	6.77	0.84	7.88	1.02	1.22	1.31%

1.3 Other Reaches Outside of Prioritization Framework

The following reaches were not included in the prioritization and not divided into project areas. These reaches were excluded for both physical reasons, including lack of sufficient flow or substantial salmonid populations, as well as practical considerations to limit the scope of this assessment. Table A-4 summarizes these reaches as well as the reason for why they were omitted from the assessment.

Table A-4
Reaches Outside Assessment Summary

Reach	Approx. Total River Length (mi)	Reason For Exclusion from Prioritization
Whetstone Creek	29.30	Not a significant population of focal species. Non instream actions such as flow and riparian management will be driving restoration strategy.
Coppei Creek Headwaters	19.13	Reach starts at confluence of North and South Fork Coppei Creek. Restoration opportunities exist mainly in the form of non-instream actions such as flow and riparian management. ¹
Whisky Creek	12.62	Focal species fish use has been reported in this smaller tributary. Whiskey Creek was excluded from the prioritization due to data limitations and assessment scope. Restoration opportunities may be available, and this tributary should be considered for future assessment.
Lower Patit	7.84	Migration reach with little habitat currently available. Lower Patit Creek was excluded from the prioritization due to data limitations and assessment scope. Restoration opportunities may be available, and this tributary should be considered for future assessment.
South Fork Patit	11.68	Ephemeral stream without flow for portions of the year. Restoration opportunities exist mainly in the form of non-instream actions such as flow and riparian management. ¹
North Fork Headwaters	6.20	Reach starts at Spangler Creek confluence. Terminated assessment boundary at the presumed extent of steelhead use. Restoration opportunities exist mainly in the form of non-instream actions such as flow and riparian management. ¹
Wolf Fork Headwaters	8.08	Property and access limitations upstream Coates Creek. Restoration opportunities exist mainly in the form of non-instream actions such as flow and riparian management. ¹

Reach	Approx. Total River Length (mi)	Reason For Exclusion from Prioritization
Robinson Fork Headwaters	8.88	Reach starts at end of road access. Restoration opportunities exist mainly in the form of non-instream actions such as flow and riparian management. ¹
South Fork Headwaters	11.83	Reach starts at Rainwater Wildlife Area Boundary. Restoration opportunities exist mainly in the form of non-instream actions such as flow and riparian management. ¹

Note:

1. Evaluation of forest and wilderness area riparian management restoration opportunities is outside the scope of this assessment. However, many of these reaches do provide existing habitat for focal species, and upstream land management restoration is an important piece of basin-scale restoration. These reaches should be considered in future evaluations for non-instream and forest management or riparian restoration opportunities.