

Appendix G

Dominant Process Indicators and Reach Summary Data Sheets

Content:

- Main Stem Reach Data
- Tributary Reach Data

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Appendix G: Middle Creek Main Stem Reach Data

Reach Number	MCR005	MCR010	MCR015	MCR020	MCR025	MCR027	MCR030	MCR035	MCR040	MCR045	MCR050
Channel Length	3162	4723	4604	3497	2133	6716	7435	4507	4322	3955	4770
Valley Length	2992	4435	4454	3303	1925	6353	4446	4046	3443	2017	2362
Reach Sinuosity	1.056818	1.064938	1.033678	1.814738	1.108052	1.057138	1.67229	1.11394	1.255301	1.960833	2.019475
Dominant Process	Widening	Planform Adjustment	Planform Adjustment	Widening	Widening	Widening	Widening	Widening	Widening	Widening	Widening
Indicators of Dynamic Equilibrium											
No persistent scour or erosion	-	-	-	-	-	-	-	-	-	-	-
Bankfull shelf along one or both	-	-	-	-	-	-	-	-	-	-	-
Gradually sloping banks	-	-	-	-	-	-	-	-	-	-	-
Herbaceous vegetation growing at or near the water surface	-	-	-	-	-	-	-	-	-	-	-
Well established woody vegetation on healed failure surfaces	-	-	-	-	-	-	-	-	-	-	-
Vegetated consolidated bars	-	-	-	-	-	-	-	-	-	-	-
Consolidated bed material	-	-	-	-	-	-	-	-	-	-	-
Imbricated rock bed material	-	-	-	-	-	-	-	-	-	-	-
De facto grade controls reinforcing knickpoints	-	-	-	-	-	-	-	-	-	-	-
Healthy riparian corridor and canopy cover	-	-	-	-	-	-	-	-	-	-	-
Indicators of Incision											
V" or "U" shaped channel cross section	-	-	-	-	-	-	-	-	-	-	-
Persistent scouring on both banks toe to mid slope	TRUE	-	-	-	-	-	-	-	-	-	-
Wedge failures along both banks	TRUE	-	-	-	-	-	-	-	-	-	TRUE
Steep near vertical banks	TRUE	-	-	-	-	-	-	-	-	-	TRUE
Perched bankfull floodplain or abandoned terraces	TRUE	-	-	-	-	-	-	-	-	-	TRUE
Knickpoints and knickzones occurring in channel profile	TRUE	-	-	-	-	-	-	-	-	-	-
Steep bed slope	-	-	-	-	-	-	-	-	-	-	-
Scoured bed material	-	-	-	-	-	-	-	-	-	-	-
Consolidated bed material incision	-	-	-	-	-	-	-	-	-	-	-
Frequent large woody debris jams	-	-	-	-	-	-	-	-	-	-	TRUE
Lower limit of woody vegetation high with exposed roots	TRUE	-	-	-	-	-	-	-	-	-	TRUE
Undercut or perched infrastructure	-	-	-	-	-	-	-	-	-	-	-
Indicators of Widening											
Wide "U" shaped channel cross section	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Increase in cross sectional area	-	-	-	-	-	TRUE	TRUE	-	-	-	-
Increase in channel width and decrease in bank height from upstr	-	-	-	-	-	-	TRUE	-	-	-	-
Scouring or bank failures along both banks	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Persistent scouring on both banks mid to upper slope	-	-	-	-	-	-	-	-	-	-	-
Residual failure material at bank toes	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Unconsolidated depositional bed material widening	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Depositional center bars	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Unconsolidated depositional sediment bars	TRUE	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	-
Reinforced knickpoints and knickzones	TRUE	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Large woody debris jams	-	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Lower limit of woody vegetation high with exposed roots	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Numerous surfing or overhanging trees	-	TRUE	-	TRUE	-	-	TRUE	TRUE	TRUE	TRUE	TRUE
Planform Adjustment	-	-	-	TRUE	-	-	-	-	-	-	-
Cutbanks with active scour lines opposite of advancing bar formations	-	TRUE	TRUE	TRUE	TRUE	-	TRUE	TRUE	TRUE	-	-
Circular failures along alternating banks or at the outside of banks	-	TRUE	TRUE	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Alternating pattern of scour and deposition	-	TRUE	TRUE	-	-	-	-	-	-	-	-
Bar formations are consolidated with an unconsolidated leading edge	-	TRUE	-	TRUE	-	TRUE	-	-	-	-	-
Bar material unsorted with fines downstream	-	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	-	-	-
Bar is irregularly shaped and more than 13 across the channel	-	TRUE	TRUE	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Poorly sorted bed material	-	-	TRUE	-	-	TRUE	-	-	-	-	-
Notes - numbers in the notes rows are data codes corresponding to the observed indicators. these codes are displayed as "TRUE" in the above indicators of dynamic equilibrium	3.1,3.4,3.6,3.7,3.8,3.9,3.10,3.12,2.2,3,4,6,6,11	4.1,4.2,4.3,4.4,4.6,4.5,3,1,3.4,3.6,3.8,3.7,3.12,3	4.1,4.2,4.3,4.5,4.6,4.7,3.1,3.4,3.6,3.7,3.8,3.12	summary, 3; 3.1,3.4,3.6,3.7,3.8,3.9,3.10,3.11,3.12,3.13,4.1,4.2,4.5,4.6 - break reach here.	summary, 3; 3.1,3.4,3.6,3.7,3.8,3.9,3.10,3.11,3.12,3.13,4.1,4.2,4.5,4.6	3.1,3.2,3.4,3.6,3.7,3.8,3.9,3.10,3.11,3.12,3.13,4.1,4.2,4.4	3.1,3.2,3.4,3.6,3.7,3.8,3.9,3.10,3.11,3.12,3.13,4.1,4.2,4.4	3.1,3.4,3.6,3.7,3.8,3.9,3.10,3.11,3.12,3.13,4.1,4.4	combine with upstream	3.1,3.4,3.6,3.7,3.7,3.8,3.10,3.11,3.12,3.13,4.2,4.4	3.1,3.4,3.6,3.7,3.8,3.10,3.11,3.12,3.13,4.2,4.6,2.

Field Observations and Data Input

Appendix G: Middle Creek Tributary Reach Data

Reach Number	MC045R015	MC050R005	MC050R010	MC053R005	MC055R005	MC060R005	MC060R007	MC060R010	MC060R015	MC060R020	MC160R005	MC260R005	MC065R005	MC065R005
Channel Length	693	2107	5120	1180	5147	4102	2308	2308	2597	4824	3384	4327	1546	1546
Valley Length	618	1607	4875	1099	4074	3301	2089	2089	2486	4223	3069	3964	1477	1477
Reach Sinuosity	1.121359	1.311139	1.050256	1.073703	1.263378	1.242654	1.104835	1.104835	1.04465	1.142316	1.102639	1.091574	1.046716	1.046716
Dominant Process	Managed Swale	Incision	Managed Swale	Early Stage Incision	Managed Swale	Managed Swale	Incision	Managed Swale	Managed Swale	Incision	Managed Swale	Early Stage Incision	Managed Swale	Managed Swale
Indicators of Dynamic Equilibrium														
No persistent scour or erosion features	-	-	-	-	-	-	-	-	-	TRUE	-	-	-	-
Bankfull shelf along one or both banks	-	-	-	-	-	-	-	-	-	TRUE	-	-	-	-
Gradually sloping banks	-	-	-	-	-	-	-	-	-	TRUE	-	-	-	-
Herbaceous vegetation growing at or near the water surface	-	-	-	-	-	-	-	-	-	TRUE	-	-	-	-
Well established woody vegetation on healed failure surfaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetated consolidated bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consolidated bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Imbricated rock bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-
De facto grade controls reinforcing knickpoints	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Healthy riparian corridor and canopy cover	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicators of Incision														
V or U shaped channel cross section	-	TRUE	-	-	-	-	-	-	-	TRUE	-	-	-	-
Persistent scouring on both banks toe to mid slope	-	TRUE	-	-	-	-	-	-	-	TRUE	-	-	-	-
Wedge failures along both banks	-	TRUE	-	-	-	-	-	-	-	-	-	-	-	-
Steep near vertical banks	-	TRUE	-	-	-	-	-	-	-	TRUE	-	-	-	-
Perched bankfull floodplain or abandoned terraces	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Knickpoints and knickzones occurring in channel profile	-	TRUE	-	-	-	-	-	-	-	TRUE	-	-	-	-
Steep bed slope	-	TRUE	-	-	-	-	-	-	-	TRUE	-	-	-	-
Scoured bed material	-	TRUE	-	-	-	-	-	-	-	TRUE	-	-	-	-
Consolidated bed material incision	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Frequent large woody debris jams	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lower limit of woody vegetation high with exposed roots	-	TRUE	-	-	-	-	-	-	-	TRUE	-	-	-	-
Undercut or perched infrastructure	-	TRUE	-	-	-	-	-	-	-	-	-	-	-	-
Indicators of Widening														
Wide U shaped channel cross section	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Increase in cross sectional area	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Increase in channel width and decrease in bank height from upstr	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scouring or bank failures along both banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Persistent scouring on both banks mid to upper slope	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual failure material at bank toes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unconsolidated depositional bed material widening	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depositional center bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unconsolidated depositional sediment bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reinforced knickpoints and knickzones	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Large woody debris jams	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lower limit of woody vegetation high with exposed roots	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Numerous surfing or overhanging trees	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planform Adjustment														
Cutbanks with active scour lines opposite of advancing bar formations	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Circular failures along alternating banks or at the outside of banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alternating pattern of scour and deposition	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bar formations are consolidated with an unconsolidated leading edge	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bar material unsorted with fines downstream	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bar is irregularly shaped and more than 1.3 across the channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poorly sorted bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Notes - numbers in the notes rows are data codes corresponding to the observed indicators. these codes are displayed as "TRUE" in the above indicators of dynamic equilibrium	did not walk, managed swale. Note 29: end reach here	Note 79: grouted riprap at culvert outfall is perched and beginning to breakup. monitor for degradation, Note 80: managed swale upstream, did not walk. end reach here	Note 80: managed swale upstream, did not walk. end reach here	Note 42: managed farm field	Note 42: managed swale upstream, farm field downstream, Note 44: farm pond controlling channel, did not walk upstream.	Note 71: managed swale., Note 72: managed swale., Note 73: managed swale upstream.	Note 69: break reach at hwy 80. upstream is managed swale.	Note 68: managed swale, Note 69: break reach at hwy 80. upstream is managed swale.	Note 66: managed swale	Note 64: channel stable upstream., Note 65: did not walk further upstream.	managed swale in field, Note 62: did not walk managed swale. Note 70: lower end incised, controlled by culverts.	Note 63: did not walk upstream, early stages of incision	Note 45: managed roadside swale upstream of culvert. culvert acts as grade control.	Note 45: managed roadside swale upstream of culvert. culvert acts as grade control.

Field Observations and Data Input

Appendix G: Middle Creek Tributary Reach Data

Reach Number	MC005R005	MC005R010	MC005R015	MC105R005	MC010R005	MC015R005	MC020R005	MC025R005	MC025R010	MC030R005	MC035R005	MC040R005	MC045R005	MC045R010
Channel Length	922	2819	2457	3168	374	651	3195	3510	3284	847	2702	3608	1477	4330
Valley Length	824	2649	2323	2694	338	651	2448	2838	2629	742	2390	3512	1439	4160
Reach Sinuosity	1.118932	1.064175	1.057684	1.175947	1.106509	1	1.305147	1.236786	1.249144	1.141509	1.130544	1.027335	1.026407	1.040865
Dominant Process	Early Stage Incision	Managed Swale	Managed Swale	Managed Swale	Early Stage Incision	Early Stage Incision	Stable	Early Stage Incision	Early Stage Incision	Early Stage Incision	Managed Swale	Managed Swale	Early Stage Incision	Managed Swale
Indicators of Dynamic Equilibrium														
No persistent scour or erosion features	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bankfull shelf along one or both banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gradually sloping banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbaceous vegetation growing at or near the water surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Well established woody vegetation on healed failure surfaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetated consolidated bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consolidated bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Imbricated rock bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-
De facto grade controls reinforcing knickpoints	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Healthy riparian corridor and canopy cover	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicators of Incision														
V or U shaped channel cross section	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Persistent scouring on both banks toe to mid slope	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wedge failures along both banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steep near vertical banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Perched bankfull floodplain or abandoned terraces	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Knickpoints and knickzones occurring in channel profile	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steep bed slope	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scoured bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consolidated bed material incision	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Frequent large woody debris jams	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lower limit of woody vegetation high with exposed roots	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undercut or perched infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicators of Widening														
Wide U shaped channel cross section	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Increase in cross sectional area	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Increase in channel width and decrease in bank height from upstr	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scouring or bank failures along both banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Persistent scouring on both banks mid to upper slope	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual failure material at bank toes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unconsolidated depositional bed material widening	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depositional center bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unconsolidated depositional sediment bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reinforced knickpoints and knickzones	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Large woody debris jams	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lower limit of woody vegetation high with exposed roots	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Numerous surfing or overhanging trees	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planform Adjustment														
Cutbanks with active scour lines opposite of advancing bar formations	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Circular failures along alternating banks or at the outside of banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alternating pattern of scour and deposition	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bar formations are consolidated with an unconsolidated leading edge	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bar material unsorted with fines downstream	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bar is irregularly shaped and more than 1.3 across the channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poorly sorted bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Notes - numbers in the notes rows are data codes corresponding to the observed indicators. these codes are displayed as "TRUE" in the above indicators of dynamic equilibrium	early stages of incision	culvert partially blocked, Note 22: concrete channel	Note 23: concrete channel, did not walk further	did not walk, stable swale, Note 21: tributary is stable swale.	-	-	stable channel, Note 39: did not walk	-	Note 38: did not walk	-	managed swale, Note 24: did not walk, Note 37: did not walk	Note 36: did not walk upstream, managed swale in field; Note 35: did not walk	early stage incision	did not walk, managed swale, Note 29: end reach here; Note 28: did not walk, managed swale; Note 34: did not walk

Field Observations and Data Input

Appendix G: Middle Creek Tributary Reach Data

Reach Number	MC070R005	MC070R005	MC170R005	MC075R005	MC075R010	MC075R015	MC075R020	MC075R025	MC075R030	om SC005R	MC175R005	MC275R005	MC375R005	MC475R005	MC080R005		
Channel Length	5030	5030	3134	2074	5165	2891	6449	1523	885	5315	5315	2544	3239	825	2592		
Valley Length	4480	4480	2475	1572	3037	1506	3660	1130	849	4735	4735	1701	2603	820	2493		
Reach Sinuosity	1.122768	1.122768	1.266263	1.319338	1.700691	1.919655	1.762022	1.347788	1.042403	1.122492	1.122492	1.495591	1.244334	1.006098	1.039711		
Dominant Process	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision	Incision		
Indicators of Dynamic Equilibrium																	
No persistent scour or erosion features	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Bankfull shelf along one or both banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Gradually sloping banks	-	-	-	-	-	-	-	-	-	-	-	TRUE	-	-	-		
Herbaceous vegetation growing at or near the water surface	-	-	-	-	-	-	-	-	-	-	-	TRUE	-	-	-		
Well established woody vegetation on healed failure surfaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Vegetated consolidated bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Consolidated bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Imbricated rock bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
De facto grade controls reinforcing knickpoints	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Healthy riparian corridor and canopy cover	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Indicators of Incision																	
V" or "U" shaped channel cross section	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	TRUE	TRUE	TRUE	TRUE		
Persistent scouring on both banks toe to mid slope	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	TRUE	TRUE	TRUE	TRUE		
Wedge failures along both banks	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	TRUE	TRUE	TRUE	TRUE		
Steep near vertical banks	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	TRUE	TRUE	TRUE	TRUE		
Perched bankfull floodplain or abandoned terraces	-	-	-	-	-	TRUE	-	-	TRUE	-	-	-	-	TRUE	-		
Knickpoints and knickzones occurring in channel profile	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	-	TRUE	TRUE	TRUE		
Steep bed slope	-	-	TRUE	TRUE	TRUE	-	TRUE	TRUE	-	-	-	TRUE	TRUE	-	TRUE		
Scoured bed material	-	-	TRUE	TRUE	TRUE	-	TRUE	TRUE	TRUE	-	-	TRUE	TRUE	TRUE	TRUE		
Consolidated bed material incision	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Frequent large woody debris jams	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	TRUE	TRUE	-	TRUE		
Lower limit of woody vegetation high with exposed roots	-	-	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	-	-	TRUE	TRUE	TRUE	-		
Undercut or perched infrastructure	-	-	-	TRUE	-	-	-	-	-	-	-	-	-	TRUE	TRUE		
Indicators of Widening																	
Wide "U" shaped channel cross section	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Increase in cross sectional area	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Increase in channel width and decrease in bank height from upstr	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Scouring or bank failures along both banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Persistent scouring on both banks mid to upper slope	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Residual failure material at bank toes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Unconsolidated depositional bed material widening	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Depositional center bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Unconsolidated depositional sediment bars	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Reinforced knickpoints and knickzones	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Large woody debris jams	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lower limit of woody vegetation high with exposed roots	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Numerous surfing or overhanging trees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Planform Adjustment																	
Cutbanks with active scour lines opposite of advancing bar formations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Circular failures along alternating banks or at the outside of banks	-	-	TRUE	-	-	-	-	-	-	-	-	-	-	-	-		
Alternating pattern of scour and deposition	-	-	TRUE	-	-	-	-	-	-	-	-	-	-	-	-		
Bar formations are consolidated with an unconsolidated leading edge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Bar material unsorted with fines downstream	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Bar is irregularly shaped and more than 1.3 across the channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Poorly sorted bed material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Notes - numbers in the notes rows are data codes corresponding to the observed indicators. these codes are displayed as "TRUE" in the above indicators of dynamic equilibrium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
				incision depth goes from 6ft to 20 ft in reach, Note 54: detention basin controls elevation in tributary. Note 55: rock grade control, some poured concrete walls. Note 56: improved inlet at culvert holding up 3ft of channel. Note 57: rock grade control at culvert outfall, perched 3 ft		Note 54: detention basin controls elevation in tributary.					Note 75: pond, minor swale upstream., Note 76: managed swale., Note 78: managed field upstream. end reach summary here.	Note 54: detention basin controls elevation in tributary., Note 78: managed field upstream. end reach summary here.		Note 53: did not walk upstream. early stages of incision	Note 52: did not walk upstream. early stages of incision	Note 51: culvert holding up 6ft knickpoint	Note 30: twin 48 inch pipe outfall below railroad. perched 10 ft., Note 31: upstream end of culvert. drct area drains to middle creek, not salt creek., Note 32: did not wlk further east, trib flowing west to middle creek. will look from road to determine watershed boundary., Note 58: drainage divide. split reach here.

Field Observations and Data Input

Appendix G: Middle Creek Tributary Reach Data

Reach Number	MC080R010	MC090R005	MC090R010	MC190R005
Channel Length	3188	822	1357	1024
Valley Length	1789	809	1241	907
Reach Sinuosity	1.782001	1.016069	1.093473	1.128997
Dominant Process	Incision	Managed Swale	Managed Swale	Managed Swale
Indicators of Dynamic Equilibrium				
No persistent scour or erosion features	-	-	-	-
Bankfull shelf along one or both banks	-	-	-	-
Gradually sloping banks	-	-	-	-
Herbaceous vegetation growing at or near the water surface	-	-	-	-
Well established woody vegetation on healed failure surfaces	-	-	-	-
Vegetated consolidated bars	-	-	-	-
Consolidated bed material	-	-	-	-
Imbricated rock bed material	-	-	-	-
De facto grade controls reinforcing knickpoints	-	-	-	-
Healthy riparian corridor and canopy cover	-	-	-	-
Indicators of Incision				
V" or "U" shaped channel cross section	TRUE	-	-	-
Persistent scouring on both banks toe to mid slope	TRUE	-	-	-
Wedge failures along both banks	-	-	-	-
Steep near vertical banks	TRUE	-	-	-
Perched bankfull floodplain or abandoned terraces	-	-	-	-
Knickpoints and knickzones occurring in channel profile	TRUE	-	-	-
Steep bed slope	TRUE	-	-	-
Scoured bed material	TRUE	-	-	-
Consolidated bed material incision	-	-	-	-
Frequent large woody debris jams	TRUE	-	-	-
Lower limit of woody vegetation high with exposed roots	TRUE	-	-	-
Undercut or perched infrastructure	-	-	-	-
Indicators of Widening				
Wide "U" shaped channel cross section	-	-	-	-
Increase in cross sectional area	-	-	-	-
Increase in channel width and decrease in bank height from upstr	-	-	-	-
Scouring or bank failures along both banks	-	-	-	-
Persistent scouring on both banks mid to upper slope	-	-	-	-
Residual failure material at bank toes	-	-	-	-
Unconsolidated depositional bed material widening	-	-	-	-
Depositional center bars	-	-	-	-
Unconsolidated depositional sediment bars	-	-	-	-
Reinforced knickpoints and knickzones	-	-	-	-
Large woody debris jams	-	-	-	-
Lower limit of woody vegetation high with exposed roots	-	-	-	-
Numerous surfing or overhanging trees	-	-	-	-
Planform Adjustment				
Cutbanks with active scour lines opposite of advancing bar formations	-	-	-	-
Circular failures along alternating banks or at the outside of banks	-	-	-	-
Alternating pattern of scour and deposition	-	-	-	-
Bar formations are consolidated with an unconsolidated leading edge	-	-	-	-
Bar material unsorted with fines downstream	-	-	-	-
Bar is irregularly shaped and more than 1.3 across the channel	-	-	-	-
Poorly sorted bed material	-	-	-	-
Notes - numbers in the notes rows are data codes corresponding to the observed indicators. these codes are displayed as "TRUE" in the above indicators of dynamic equilibrium	Note 31: upstream end of culvert. drct area drains to middle creek, not salt creek., Note 33: channel stable, no data taken - indicator data from SC005R01 - 2.1,2.2,2.4,2.6,2.7,2.8,2.10,2.11	Note 59: did not walk, managed swale.	did not walk. managed swale, Note 60: did not walk. managed swale	Note 61: did not walk. managed swale.

Field Observations and Data Input

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