Appendix 3A: Form 1: CAP - Field Data and Photo Documentation by Site

Channel Assessment Procedure Field Notes Sub basin: Monashee Pass Site #: 2603

General Information

Date: 20/10/96 Crew: DY & SB Weather: Wet snow

Macro reach: 1A Photo roll & frame: R:8226 F:7A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	4.3	3.1	3.0	3.5	3.7
d(cm):	17	21	19	17	21
s(%):	7	8	5	11	10
D (cm):	10	10	11	7	9

Average Width: 352.0 Average Slope: 8.2

Average Depth: 19 Average largest stone moved by water: 9.4

Relative Roughness (Rr): 0.49 Rr*Rw: 1.32

Relative Width (Rw): 0.03 Power Index (PI): 54841.60

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 30 Disturbance type S

Bank type A2 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of a stable Step-pool channel morphology in Reach 1, Monashee Pass Creek.

Channel Assessment Procedure Field Notes Sub basin: Monashee Pass Site #: 2604

General Information

Date: 21/10/96 **Crew:** DY & SB **Weather:** Snowing (wet)

Macro reach: 1B **Photo roll & frame:** R:8226 F:4A, 5A & 6A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	4.6	3.9	3.7	3.7	3.4
d(cm):	28	30	21	22	25
s(%):	5	3	3	4	4
D (cm):	10	13	12	11	12

Average Width: 386.0 Average Slope: 3.8

Average Depth: 25.2 Average largest stone moved by water: 11.6

Relative Roughness (Rr): 0.46 Rr*Rw: 1.38

Relative Width (Rw): 0.03 Power Index (PI): 36963.36

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 50 **Disturbance type** A2

Bank type A4 **Channel type** SPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Downstream view of Reach 1, Monashee Pass Creek. Aggradation is occuring due to confinement by an old bridge and is indicated by extensive riffle and minimal pool area.

The side channel in the foreground and the old bridge in the background are features of site 2604.

The bridge at site 2604 should be replaced since it provides access to private property (Fiddlestick campground).

Channel Assessment Procedure Field Notes Sub basin: Monashee Pass Site #: 2606

General Information

Date: 22/10/96 Crew: GM & DS Weather: Snow

Macro reach: 2 Photo roll & frame: R:X F:15

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	3.1	3.1	2.5	2.8	4.6
d(cm):	59	39	62	65	55
s(%):	5	5	5	7	5
D (cm):	13.0	12.5	14.0	14.0	11.0

Average Width: 322.0 Average Slope: 5.4

Average Depth: 56 Average largest stone moved by water: 12.9

Relative Roughness (Rr): 0.23 Rr*Rw: 0.92

Relative Width (Rw): 0.04 Power Index (PI): 97372.80

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type D1

Bank type A3/4 Channel type CPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of the stable dry channel of Reach 2, Monashee Pass Creek.

Channel Assessment Procedure Field Notes Sub basin: Tributary 6 to Monashee Pass Creek Site #: 2607

General Information

Date: 21/10/96 Crew: DS & LJ Weather: Snowy

Macro reach: 1 Photo roll & frame: R:X F:19 & 20A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.15	1.8	2.15	1.9	2.2
d(cm):	18	18	33	27	31
s(%):	2	5	4	14	9
D (cm):	10.5	11	12.5	11.5	13

Average Width: 204.0 Average Slope: 6.8

Average Depth: 25.4 Average largest stone moved by water: 11.7

Relative Roughness (Rr): 0.46 Rr*Rw: 2.64

Relative Width (Rw): 0.06 Power Index (PI): 35234.88

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 80 Disturbance type D1

Bank type A3/4 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 1, Tributary 6 to Monashee Pass Creek shows the disturbed stonelines. In addition, downstream of the photo there is a culvert which is out of alignment with the stream channel and is causing erosion and a sediment source.

The banks are eroding at the downstream end of the culvert as a result of its misalignment.

Channel Assessment Procedure Field Notes Sub basin: Tributary 9 to Monashee Pass creek Site #: 2608

General Information

Date: 21/10/96 Crew: DS & LJ Weather: Snowy

Macro reach: 1 Photo roll & frame: R:X F:18

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	6.5	1.0	0.6	.01	.22
d(cm):	25	8	32	46	31
s(%):	22	22	22	22	22
D (cm):	4.5	5	5	3.5	5.5

Average Width: 166.6 Average Slope: 22

Average Depth: 28.4 Average largest stone moved by water: 4.7

Relative Roughness (Rr): 0.17 Rr*Rw: 0.47

Relative Width (Rw): 0.03 Power Index (PI): 104091.68

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 65 Disturbance type D2

Bank type A3 Channel type SP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 1, Tributary 9 of Monashee Pass Creek shows the absence of a riparian buffer under the powerlines and the impact of cattle on the channel.

Channel Assessment Procedure Field Notes Sub basin: Monashee Pass Site #: 2609

General Information

Date: 20/10/96 Crew: GM & DS Weather: Snow

Macro reach: 3 Photo roll & frame: no photo

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.5	2.0	2.1	2.3	3.6
d(cm):	52	39	13	16	29
s(%):	5	5	1.5	4.5	7
D (cm):	7	7	7	5.5	5

Average Width: 230.0 Average Slope: 4.6

Average Depth: 29.8 Average largest stone moved by water: 6.3

Relative Roughness (Rr): 0.21 Rr*Rw: 0.58

Relative Width (Rw): 0.03 Power Index (PI): 31528.40

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☒ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☒ B2: Eroding banks
- ☒ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 80 Disturbance type A3

Bank type A1/2 Channel type CPcw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Channel Assessment Procedure Field Notes Sub basin: Tributary 9 to Monashee Pass Site #: 2610

General Information

Date: 22/10/96 **Crew:** GM & DS **Weather:** Snow

Macro reach: 1B **Photo roll & frame:** R:8227 F:0A & 1A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	3.0	3.5	5.1	3.0	4.4
d(cm):	110	115	145	80	145
s(%):	2	3	4	6	2.5
D (cm):	8	6	5	6	7

Average Width: 380.0 **Average Slope:** 3.5

Average Depth: 119 **Average largest stone moved by water:** 6.4

Relative Roughness (Rr): 0.05 **Rr*Rw:** 0.09

Relative Width (Rw): 0.02 **Power Index (PI):** 158270.00

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 105 **Disturbance type** D3

Bank type A1/2 **Channel type** RP w

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Eroding banks downstream of culvert in Reach 1, tributary 9 to Monashee Pass Creek. The banks downstream of the Monashee Pass FSR culvert are composed of road gravel fill eroded from upstream. The culvert is damaged and partially filled with gravel.

Upstream view of tributary 9 riparian area.

Channel Assessment Procedure Field Notes Sub basin: Tributary 5 to Monashee Pass Site #: 2611

General Information

Date: 23/10/96 **Crew:** JK & SB **Weather:** O/C and foggy

Macro reach: 2 **Photo roll & frame:** R:8226 F:18A & 19A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.1	1.9	5.2	2.8	8.2
d(cm):	14	5	4	4	2
s(%):	13	19	20	17	21
D (cm):	4	3	2	1	1

Average Width: 384.0 **Average Slope:** 18

Average Depth: 5.8 **Average largest stone moved by water:** 2.2

Relative Roughness (Rr): 0.38 **Rr*Rw:** 0.22

Relative Width (Rw): 0.01 **Power Index (PI):** 40089.60

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☒ B2: Eroding banks
- ☒ B3: Avulsions

Woody Debris

- ☒ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 40 **Disturbance type** 3A

Bank type N2 **Channel type** SP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream of the logging road crossing the channel is stable and functioning well.

Sediment wedges, minimal pool area, disturbed stonelines, abandoned channels, eroding banks, avulsions and small woody debris influence the channel downstream of the logging road crossing on tributary 5 to Monashee Pass Creek.

Channel Assessment Procedure Field Notes Sub basin: Tributary 14 to Monashee creek Site #: 2612

General Information

Date: 25/10/96 Crew: JK & SB Weather: Sunny

Macro reach: 1 Photo roll & frame: R:8225 F:16A&17A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	7.5	3.3	1.8	2.7	2.3
d(cm):	42	53	43	30	44
s(%):	35	21	31	20	25
D (cm):	18	25	21	23	16

Average Width: 352.0 Average Slope: 26.4

Average Depth: 42.4 Average largest stone moved by water: 20.6

Relative Roughness (Rr): 0.49 Rr*Rw: 2.84

Relative Width (Rw): 0.06 Power Index (PI): 394014.72

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 30 Disturbance type A2

Bank type A1/4 Channel type SPr

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Slide into Tributary 14 to Monashee Creek.

Downstream view of tributary 14 to Monashee Creek demonstrating the elevated mid-channel bars, multiple channels, and LWD function.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2613

General Information

Date: 25/10/96 Crew: JK & SB Weather: Sunny

Macro reach: 5G Photo roll & frame: R:8225 F:18A & 19A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	10.8	14.0	16.8	15.8	20.3
d(cm):	105	92	87	66	135
s(%):	2	3	2.5	4	2
D (cm):	41	29	32	27	31

Average Width: 1554.0 Average Slope: 2.7

Average Depth: 97 Average largest stone moved by water: 32

Relative Roughness (Rr): 0.33 Rr*Rw: 0.68

Relative Width (Rw): 0.02 Power Index (PI): 406992.60

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☒ B2: Eroding banks
- ☒ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 60 Disturbance type A

Bank type A1/5 Channel type RPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Slumping south bank of Monashee Creek demonstrates the dynamic nature of the flood plain in Reach 5.

The sinuous channel has extensive scoured zones, disturbed stonelines, minimal pools, elevated mid-channel bars, abandoned channels, eroding banks, avulsions and large woody debris function.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2615

General Information

Date: 24/10/96 Crew: GM & SB Weather: Raining

Macro reach: 5F Photo roll & frame: R:8225 F:7A, 8A & 9A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	13.4	15.7	17.4	24.6	20.2
d(cm):	109	93	89	67	92
s(%):	4	2	3	2	3
D (cm):	24	25	28	25	18

Average Width: 1826.0 Average Slope: 2.8

Average Depth: 90 Average largest stone moved by water: 24

Relative Roughness (Rr): 0.27 Rr*Rw: 0.35

Relative Width (Rw): 0.01 Power Index (PI): 460152.00

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☒ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 60 Disturbance type A2

Bank type A3/4 Channel type RP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view showing eroding bank, recent log jams and large woody debris function.

Upstream view of tributary 14 to Monashee Creek at the confluence.

Downstream view of Reach 5, Monashee Creek. Note extensive riffles.

Channel Assessment Procedure Field Notes Sub basin: Tributary 29 to Monashee creek Site #: 2619

General Information

Date: 24/10/96 Crew: DS & JK Weather: Snow

Macro reach: 2 Photo roll & frame: R:X P:6

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	3.8	6.0	4.2	5.0	2.4
d(cm):	43	31	21	45	42
s(%):	12	12	12	13	21
D (cm):	16	12	13	13	17

Average Width: 428.0 Average Slope: 14

Average Depth: 36.4 Average largest stone moved by water: 14.2

Relative Roughness (Rr): 0.39 Rr*Rw: 1.29

Relative Width (Rw): 0.03 Power Index (PI): 218108.80

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type S

Bank type A3/4 Channel type SPb w

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view showing abundant blowdown in a prestine Step-pool channel.

Channel Assessment Procedure Field Notes Sub basin: Tributary 7.6 to Monashee Pass Site #: 2620

General Information

Date: 23/10/96 **Crew:** JK & SB **Weather:** O/C and Snowing

Macro reach: 1B **Photo roll & frame:** R:8226 F:20A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1	0.7	1	0.7	1
d(cm):	17	21	16	17	10
s(%):	23	24	26	26	24
D (cm):	5	3	4	6	4

Average Width: 88.0 **Average Slope:** 24.6

Average Depth: 16.2 **Average largest stone moved by water:** 4.4

Relative Roughness (Rr): 0.27 **Rr*Rw:** 1.36

Relative Width (Rw): 0.05 **Power Index (PI):** 35069.76

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 200 **Disturbance type** D2

Bank type A3/4 **Channel type** SP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of a degrading channel Reach 1, tributary 7.6 to Monashee Pass Creek. The creek headwaters drain a clearcut that has not reached free to grow. Downstream, where the creek enters the forest, the channel is dry.

Channel Assessment Procedure Field Notes Sub basin: Tributary 7.6 to Monashee Pass Site #: 2621

General Information

Date: 22/10/96 **Crew:** JK & SB **Weather:** Snowing

Macro reach: 1A **Photo roll & frame:** R:8226 F:21A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.1	0.8	1.4	1.1	1.7
d(cm):	12	16	7	18	18
s(%):	35	34	30	35	35
D (cm):	7	3	6	5	4

Average Width: 122.0 **Average Slope:** 33.8

Average Depth: 14.2 **Average largest stone moved by water:** 5

Relative Roughness (Rr): 0.35 **Rr*Rw:** 1.44

Relative Width (Rw): 0.04 **Power Index (PI):** 58555.12

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 50 **Disturbance type** D2

Bank type A4/1 **Channel type** SP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Channel Assessment Procedure Field Notes Sub basin: Monashee Pass Site #: 2622

General Information

Date: 21/10/96 Crew: DY & SB Weather: Cold

Macro reach: 4A Photo roll & frame: R:8226 F:8A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.8	4.4	2.4	2.8	3.6
d(cm):	22	28	13	26	17
s(%):	12	8	11	10	9
D (cm):	11	10	8	8	7

Average Width: 320.0 Average Slope: 10

Average Depth: 21.2 Average largest stone moved by water: 8.8

Relative Roughness (Rr): 0.42 Rr*Rw: 1.14

Relative Width (Rw): 0.03 Power Index (PI): 67840.00

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) N/A Disturbance type S

Bank type A4 Channel type SPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Reach 4, Monashee Pass Creek is a Step-pool boulder channel morphology that is functioning well and considered stable.

Channel Assessment Procedure Field Notes Sub basin: Tributary 7 to Monashee creek (Cedar Gulch) Site #: 2624

General Information

Date: 21/10/96 Crew: DY & SB Weather: Snowing (wet)

Macro reach: 2 Photo roll & frame: R:8226 F:3A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.0	2.2	1.9	1.8	1.6
d(cm):	12	5	6	10	8
s(%):	26	21	15	18	18
D (cm):	9	5	6	6	7

Average Width: 190.0 Average Slope: 19.6

Average Depth: 8.2 Average largest stone moved by water: 6.6

Relative Roughness (Rr): 0.80 Rr*Rw: 2.80

Relative Width (Rw): 0.03 Power Index (PI): 30536.80

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type A2

Bank type A3/4 Channel type SPr

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Cedar Gulch is dry in reach 2 upstream of Hwy. 6. There is sign of high flows indicated by the sediment deposit at the upstream end of the highway culvert.

Channel Assessment Procedure Field Notes Sub basin: Half Mile Creek Site #: 2625

General Information

Date: 21/10/96 Crew: DY & SB Weather: Snowing (wet)

Macro reach: 1 Photo roll & frame: R:8226 F:0A,1A & 2A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.7	1.5	1.6	0.8	0.9
d(cm):	4.5	4.0	7.0	5	8
s(%):	22	22	22	23	24
D (cm):	5	4.5	2.5	2	3

Average Width: 130.0 Average Slope: 22.6

Average Depth: 5.7 Average largest stone moved by water: 3.4

Relative Roughness (Rr): 0.60 Rr*Rw: 1.56

Relative Width (Rw): 0.03 Power Index (PI): 16746.60

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type A2

Bank type N2 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Culvert draining Reach 1, Half Mile Creek under Hwy. 6. The creek forms multiple channels immediately downstream of the culvert under the powerlines. The creek becomes a single channel when it re-enters the young, coniferous forest. Upstream of Hwy. 6 the channel is functioning well in a mature coniferous forest.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2627

General Information

Date: 22/10/96 Crew: DS & GM Weather: Rain/Snow /Over cast

Macro reach: 4 Photo roll & frame: R:8227 F:5A, 6A & 7A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	11.9	10.6	14.6	19.5	14.1
d(cm):	131	166	102	59	85
s(%):	1.5	1.5	4	1	1.5
D (cm):	36	29	31	25	33

Average Width: 1414.0 Average Slope: 1.9

Average Depth: 108.6 Average largest stone moved by water: 30.8

Relative Roughness (Rr): 0.28 Rr*Rw: 0.62

Relative Width (Rw): 0.02 Power Index (PI): 291764.76

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 50 Disturbance type D1

Bank type A4 Channel type CPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 4, Monashee Creek. The channel is showing signs of degradation including: extensive riffles, minimal pool area and disturbed stonelines.

Downstream view showing the steep sided canyon that is characteristic of Reach 4

Reach 4 widens upstream of the canyon.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2628A

General Information

Date: 20/10/96 Crew: GM & DS Weather: Over cast

Macro reach: 5A Photo roll & frame: R:8227 F:2A, 3A & 4A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	13.4	14.5	19.5	20.6	24.8
d(cm):	80	66	98	76	135
s(%):	1	2.5	4	1.5	2.5
D (cm):	35	28	34	33	28

Average Width: 1856.0 Average Slope: 2.3

Average Depth: 91 Average largest stone moved by water: 31.6

Relative Roughness (Rr): 0.35 Rr*Rw: 0.59

Relative Width (Rw): 0.02 Power Index (PI): 388460.80

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 90 Disturbance type D2

Bank type A3/4 Channel type CP bw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 5, Monashee Creek shows naturally eroding banks, extensive bars, extensive riffles and minimal pool area at the confluence of Yeoward and Monashee Creeks.

Downstream view of Reach 5 shows the dynamic nature of the channel and the continuous erosion of banks as the channel changes course. In addition, LWD is creating log jams and parallels the banks.

Channel Assessment Procedure Field Notes Sub basin: Yeoward creek Site #: 2628B

General Information

Date: 22/10/96 Crew: SB & JK & LJ Weather: Overcast

Macro reach: 1 Photo roll & frame: R:8226 F:9A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	8.6	8.4	10.7	7.3	10.4
d(cm):	58	48	75	35	58
s(%):	4	9	13	8	5
D (cm):	23	30	33	19	17

Average Width: 908.0 Average Slope: 7.8

Average Depth: 54.8 Average largest stone moved by water: 24.4

Relative Roughness (Rr): 0.45 Rr*Rw: 1.20

Relative Width (Rw): 0.03 Power Index (PI): 388115.52

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 30 Disturbance type A2

Bank type A3/5 Channel type CPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2629

General Information

Date: 24/10/96 **Crew:** GM & SB **Weather:** Raining

Macro reach: 5B **Photo roll & frame:** R:8225 F:2A,3A & 4A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	14.8	13.5	17.1	16.7	13.8
d(cm):	143	143	119	118	91
s(%):	4	4	4	3	4
D (cm):	22	27	21	27	25

Average Width: 1518.0 **Average Slope:** 3.8

Average Depth: 122.8 **Average largest stone moved by water:** 24.4

Relative Roughness (Rr): 0.20 **Rr*Rw:** 0.32

Relative Width (Rw): 0.02 **Power Index (PI):** 708359.52

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

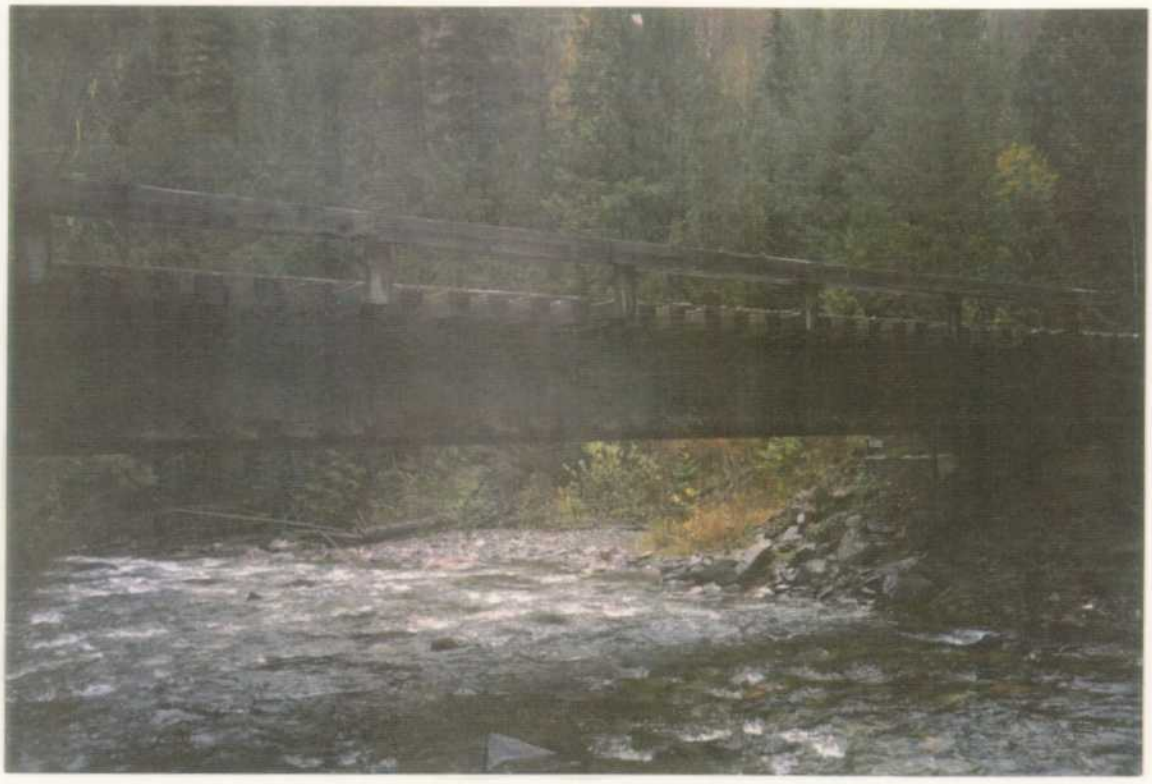
- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 30 **Disturbance type** A2

Bank type A4/5 **Channel type** RP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Extensive riffles and minimal pool area are characteristic of the aggrading channel in Reach 5, Monashee Creek.



The bridge crossing to the Yeoward sub-basin is sound, however, aggradation of the channel is occuring in the vicinity.

Downstream view of a recently formed logjam in Reach 5.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2630

General Information

Date: 24/10/96 Crew: GM & SB Weather: Raining

Macro reach: 5C Photo roll & frame: R:8225 F:5A & 6A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	15.1	13.4	12.6	13.3	12.6
d(cm):	136	145	129	101	121
s(%):	2	3	1	2	2
D (cm):	23	28	30	28	24

Average Width: 1340.0 Average Slope: 2

Average Depth: 126.4 Average largest stone moved by water: 26.6

Relative Roughness (Rr): 0.21 Rr*Rw: 0.42

Relative Width (Rw): 0.02 Power Index (PI): 338752.00

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

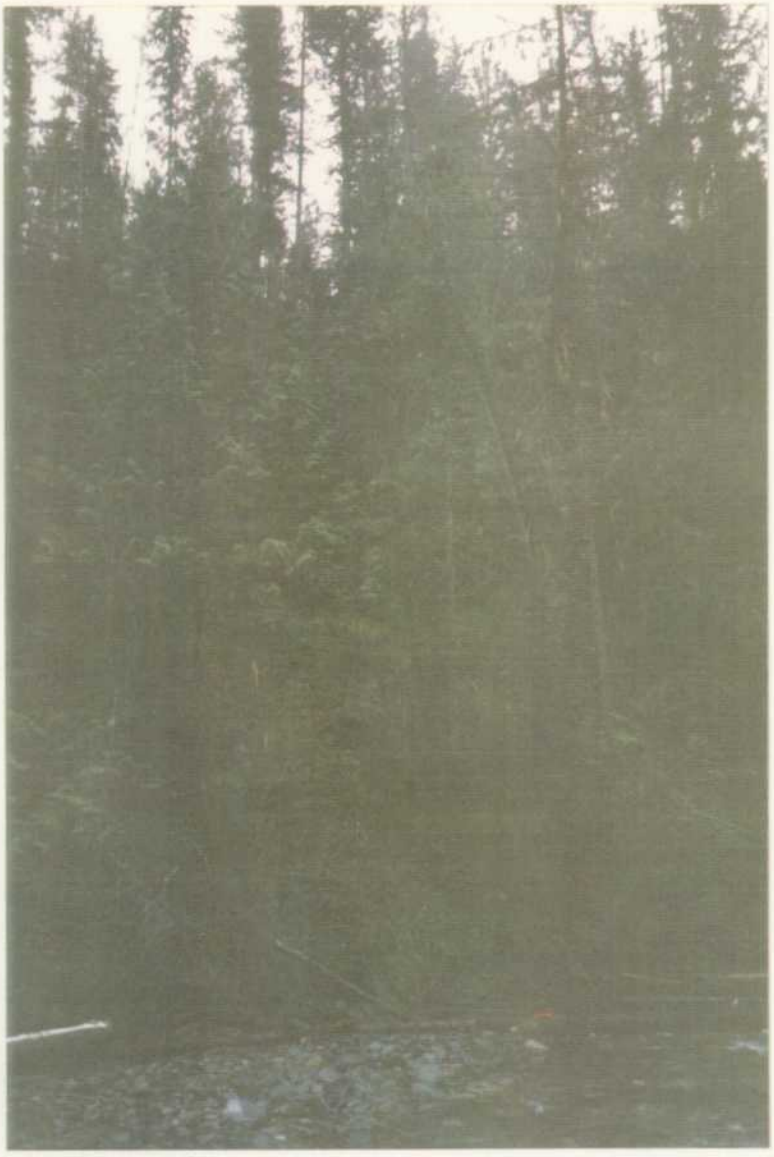
- ☒ D1: Small woody debris
- ☐ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 40 Disturbance type A2

Bank type A4/5 Channel type RPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view showing extensive riffles, minimal pools and disturbed stonelines in Reach 5, Monashee Creek.



Erosion, slumping banks and cobble bars are characteristic of this site in Reach 5.

Channel Assessment Procedure Field Notes Sub basin: Yeoward creek Site #: 2631

General Information

Date: 23/10/96 Crew: JK &SB Weather: Overcast

Macro reach: 2 Photo roll & frame: R:8226 F:22A, 23A & 24A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	8.7	3.9	7.9	10.8	5.6
d(cm):	64	74	65	34	66
s(%):	10	15	18	23	20
D (cm):	20	13	18	15	13

Average Width: 738.0 Average Slope: 17.2

Average Depth: 60.6 Average largest stone moved by water: 15.8

Relative Roughness (Rr): 0.26 Rr*Rw: 0.56

Relative Width (Rw): 0.02 Power Index (PI): 769232.16

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 60 Disturbance type D2

Bank type A1/4 Channel type SPr w

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Slumping banks adjacent to Reach 2, Yeoward Creek are related to a trail parallel to the north side of the creek, a landing and old upslope logging. Bank stabilization with rooting vegetation is recommended, however soils are fine colluvium and trees have been easily uprooted.

An ATV bridge, log dump and truck box are human disturbances at this site. Downstream the creek is functioning well with some eroding banks and disturbed stonelines.

Channel Assessment Procedure Field Notes Sub basin: Tributary 7A to Yeoward Creek Site #: 2632

General Information

Date: 24/6/97 Crew: SB & PK & KS Weather: O/C

Macro reach: 1 Photo roll & frame: R:X F:12A & 13A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.5	4.7	2.1	0.9	1.8
d(cm):	12	8.5	18	24	13
s(%):	15	15	21	19	27
D (cm):	3	5	1	4	6

Average Width: 240.0 Average Slope: 19.4

Average Depth: 15.1 Average largest stone moved by water: 3.8

Relative Roughness (Rr): 0.25 Rr*Rw: 0.00

Relative Width (Rw): 0.02 Power Index (PI): 70305.60

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 49.3 Disturbance type S

Bank type N2 Channel type SPr

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 1, Tributary 7A to Yeoward Creek shows the stable channel.

Downstream view of Reach 1, Tributary 7A to Yeoward Creek.

Channel Assessment Procedure Field Notes Sub basin: Tributary 8 to Yeoward creek Site #: 2633

General Information

Date: 22/10/96 Crew: JK & LJ & SB Weather: Over cast

Macro reach: 1 Photo roll & frame: R:8226 F:15A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	4.9	2.4	1.8	2.3	1.9
d(cm):	8	6	21	14	16
s(%):	30	30	30	30	30
D (cm):	2	5	7	6	3

Average Width: 266.0 Average Slope: 30

Average Depth: 13 Average largest stone moved by water: 4.6

Relative Roughness (Rr): 0.35 Rr*Rw: 0.61

Relative Width (Rw): 0.02 Power Index (PI): 103740.00

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 60 Disturbance type D1

Bank type A5/3 Channel type SP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Downstream view of Reach 1, Tributary 9 to Yeoward Creek downstream of an old culvert crossing and a semi-deactivated road.

Channel Assessment Procedure Field Notes Sub basin: Yeoward creek Site #: 2635

General Information

Date: 22/10/96 Crew: SB & JK & LJ Weather: Overcast

Macro reach: 3 Photo roll & frame: R:8226 F:10A,11A&12A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	5	3.2	3.9	4.4	4.9
d(cm):	22	28	18	26	20
s(%):	2	6	4	2	3
D (cm):	7	10	7	7	11

Average Width: 428.0 Average Slope: 3.4

Average Depth: 22.8 Average largest stone moved by water: 8.4

Relative Roughness (Rr): 0.37 Rr*Rw: 0.72

Relative Width (Rw): 0.02 Power Index (PI): 33178.56

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 20 Disturbance type A1

Bank type A4/1 Channel type RP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of culvert and Reach 3, Yeoward Creek. Abundant silt in the creek indicates aggradation.

Downstream view of Yeoward Creek, downstream of the culvert demonstrates the abundant blowdown that was the riparian buffer to the adjacent clearcut.

View of the dented culvert at the Yeoward road crossing. A possibility for culvert failure exists.

Channel Assessment Procedure Field Notes Sub basin: Tributary 9 to Yeoward Creek Site #: 2636

General Information

Date: 21/10/96 **Crew:** JK & SB & LJ **Weather:** Overcast

Macro reach: 1A **Photo roll & frame:** no photo

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.3	2.2	1.8	3.5	4.8
d(cm):	9	12	20	16	10
s(%):	11	17	11	11	4
D (cm):	5	9	7	9	5

Average Width: 292.0 **Average Slope:** 10.8

Average Depth: 13.4 **Average largest stone moved by water:** 7

Relative Roughness (Rr): 0.52 **Rr*Rw:** 1.25

Relative Width (Rw): 0.02 **Power Index (PI):** 42258.24

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 1000 **Disturbance type** A2

Bank type A2 **Channel type** SP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Channel Assessment Procedure Field Notes Sub basin: Tributary 9 to Yeoward creek Site #: 2637

General Information

Date: 22/10/96 **Crew:** JK & SB & LJ **Weather:** Overcast

Macro reach: 1B **Photo roll & frame:** R:8226 F:14A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.2	2.4	2.1	2.0	2.5
d(cm):	14	12	10	9	10
s(%):	15	9	9	3	5
D (cm):	5	9	4	7	5

Average Width: 224.0 **Average Slope:** 8.2

Average Depth: 11 **Average largest stone moved by water:** 6

Relative Roughness (Rr): 0.55 **Rr*Rw:** 1.46

Relative Width (Rw): 0.03 **Power Index (PI):** 20204.80

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☐ B2: Eroding banks

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m): N/A **Disturbance type:** S

Bank type: A3/4 **Channel type:** SPcw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 1B, Tributary 9 to Yeoward Creek. The reach is considered stable with minimal pool area.

Channel Assessment Procedure Field Notes Sub basin: Tributary 10 to Yeoward creek Site #: 2638

General Information

Date: 22/10/96 **Crew:** SB & JK & LJ **Weather:** Overcast

Macro reach: 1 **Photo roll & frame:** R:8226 F:13A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.1	1.3	2.2	2.4	2.8
d(cm):	7	22	17	19	17
s(%):	5	5	3	3	7
D (cm):	7	5	4	2.5	1

Average Width: 216.0 **Average Slope:** 4.6

Average Depth: 16.4 **Average largest stone moved by water:** 3.9

Relative Roughness (Rr): 0.24 **Rr*Rw:** 0.43

Relative Width (Rw): 0.02 **Power Index (PI):** 16295.04

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 30 **Disturbance type** A2

Bank type A1 **Channel type** RP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Reach 1, Tributary 10 to Yeoward Creek is aggrading which is indicated by sediment wedges, extensive riffles and minimal pool area.

Channel Assessment Procedure Field Notes Sub basin: Tributary 10A to Yeoward Creek Site #: 2639

General Information

Date: 24/6/97 Crew: SB & PK & KS Weather: O/C

Macro reach: 1 Photo roll & frame: R:X F:14A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.6	1.6	2.3	0.7	1.8
d(cm):	16	19	18	20	17
s(%):	28	20	14	12	5
D (cm):	2.3	4.5	4.5	0	5.4

Average Width: 160.0 Average Slope: 15.8

Average Depth: 18 Average largest stone moved by water: 3.34

Relative Roughness (Rr): 0.19 Rr*Rw: 0.00

Relative Width (Rw): 0.02 Power Index (PI): 45504.00

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 41 Disturbance type A1

Bank type A1/3 Channel type SP

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Reach 1, Tributary 10A to Yeoward Creek has a homogenous silt bed texture and multiple channels which indicate aggradation.

Channel Assessment Procedure Field Notes Sub basin: Tributary 11 to Yeoward creek Site #: 2640

General Information

Date: 22/10/96 **Crew:** JK & LJ & SB **Weather:** Overcast

Macro reach: 1 **Photo roll & frame:** R:8226 F:17A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	4.5	4.1	2.6	3.0	2.8
d(cm):	17	12	25	35	13
s(%):	12	12	12	12	11
D (cm):	4	6	3	1	8

Average Width: 340.0 **Average Slope:** 11.8

Average Depth: 20.4 **Average largest stone moved by water:** 4.4

Relative Roughness (Rr): 0.22 **Rr*Rw:** 0.28

Relative Width (Rw): 0.01 **Power Index (PI):** 81844.80

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 30 **Disturbance type** A1

Bank type A1/4 **Channel type** SPcw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upslope logging and a culvert are human impacts to Reach 1, Tributary 11 to Yeoward Creek. The impacts have caused blowdown across the stream, high silt content and side channels during high flows.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2641

General Information

Date: 23/10/96 Crew: JK & SB Weather: Overcast

Macro reach: 5D Photo roll & frame: R:8285 F:1, 2 & 3

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	33.2	17.4	16	18.4	12
d(cm):	100	146	112	150	84
s(%):	3	22	3	5	4
D (cm):	15	19	19	12	31

Average Width: 1940.0 Average Slope: 7.4

Average Depth: 118.4 Average largest stone moved by water: 19.2

Relative Roughness (Rr): 0.16 Rr*Rw: 0.16

Relative Width (Rw): 0.01 Power Index (PI): 1699750.40

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 20 Disturbance type A2

Bank type A3/5 Channel type CPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Downstream view showing fallen trees from the eroding bank. Cobble bars are common.

Upstream view of Reach 5, Monashee Creek showing side channel, extensive riffles and disturbed stonelines. A 5m wide side channel was created by a log jam.

Seven year old cedars on an upslope landslide indicate the age of the landslide and its stabilizing forces. No recent landslides are apparent.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2642

General Information

Date: 23/10/96 Crew: JK & SB Weather: Overcast

Macro reach: 5E Photo roll & frame: R:8285 F:4

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	24.4	32.1	23.8	15.8	13.5
d(cm):	105	96	120	100	113
s(%):	5	6	5	5	7
D (cm):	16	18	16	17	20

Average Width: 2192.0 Average Slope: 5.6

Average Depth: 106.8 Average largest stone moved by water: 17.4

Relative Roughness (Rr): 0.16 Rr*Rw: 0.13

Relative Width (Rw): 0.01 Power Index (PI): 1310991.36

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☒ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 300 Disturbance type A3

Bank type A3/5 Channel type

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream of site 2641 at site 2642 Reach 5, Monashee Creek the channel is heavily impacted by fallen trees.

Channel Assessment Procedure Field Notes Sub basin: Tributary 19 to Monashee creek Site #: 2645

General Information

Date: 18/10/96 Crew: DS & SB Weather: Overcast

Macro reach: 2 Photo roll & frame: R:8285 F:11

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	2.1	3.1	2.0	2.0	1.8
d(cm):	20	32	28	36	27
s(%):	12	12	14.5	14	14
D (cm):	15	19	15	9	12

Average Width: 220.0 Average Slope: 13.3

Average Depth: 28.6 Average largest stone moved by water: 14

Relative Roughness (Rr): 0.49 Rr*Rw: 3.12

Relative Width (Rw): 0.06 Power Index (PI): 83683.60

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☒ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 300 Disturbance type S

Bank type A4/5 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Reach 2, Tributary 19 to Monashee Creek is a stable channel with minimal pool area, an avulsion and LWD function.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2647A

General Information

Date: 24/10/96 Crew: DS & JK Weather: Snow

Macro reach: 6B Photo roll & frame: R:X F:3, 4 & 5

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	14.9	16.6	13.8	30.4	16.0
d(cm):	81	136	63	58	122
s(%):	0.5	4	2	1	2
D (cm):	24	26	20	20	16

Average Width: 1834.0 Average Slope: 1.9

Average Depth: 92 Average largest stone moved by water: 21.2

Relative Roughness (Rr): 0.23 Rr*Rw: 0.27

Relative Width (Rw): 0.01 Power Index (PI): 320583.20

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☒ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☒ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 200 Disturbance type A3

Bank type A3/4 Channel type CPr w

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

View of bridge crossing and abutment in Reach 6B, Monashee Creek which is a human impact to the channel.

Downstream of the bridge. Upstream view of Reach 6B shows extensive riffle, sediment fingers and wedges and disturbed stonelines in this heavily aggraded channel.

View of midchannel bar formed from a sediment wedge and LWD function.

Channel Assessment Procedure Field Notes Sub basin: Tributary 24 to Monashee creek Site #: 2647B

General Information

Date: 18/10/96 Crew: DS & SB Weather: Clear

Macro reach: 1 Photo roll & frame: R:8285 F:12 &13

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.9	1.1	.5	2.0	1.4
d(cm):	10	10	13	23	25
s(%):	13	18	16	20	18
D (cm):	5	6	4	2.5	1

Average Width: 138.0 Average Slope: 17

Average Depth: 16.2 Average largest stone moved by water: 3.7

Relative Roughness (Rr): 0.23 Rr*Rw: 0.61

Relative Width (Rw): 0.03 Power Index (PI): 38005.20

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☒ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type A1

Bank type A3/4 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 1, Tributary 24 to Monashee Creek shows the homogenous fine bed texture, eroding banks and sediment wedges.

View of collapsed bridge. In order to reduce the aggradation process the bridge should be removed. In addition, the adjacent landing should be revegetated to stabilize the soils.

Channel Assessment Procedure Field Notes Sub basin: Tributary 27 to Monashee creek Site #: 2648

General Information

Date: 24/10/96 Crew: DS & JK Weather: Clear

Macro reach: 1 Photo roll & frame: R:X F:9

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	3.2	5.1	3.2	4.1	3.5
d(cm):	58	80	36	51	125
s(%):	16	18	19	18	21
D (cm):	22	19	120	17	25

Average Width: 382.0 Average Slope: 18.4

Average Depth: 70 Average largest stone moved by water: 40.6

Relative Roughness (Rr): 0.58 Rr*Rw: 6.16

Relative Width (Rw): 0.11 Power Index (PI): 492016.00

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type D1

Bank type A1/3 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

The heavily scoured bed of Reach 1, Tributary 27 to Monashee Creek indicates seasonal high velocity.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2650

General Information

Date: 24/10/96 Crew: DS & JK Weather: Clear

Macro reach: 6C Photo roll & frame: R:X F:10, 11, 12, 13 & 14

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	11.3	15.6	18.3	16.0	14.3
d(cm):	90	105	115	52	40
s(%):	3	1	5	1	
D (cm):	14	22	20	22	20

Average Width: 1510.0 Average Slope: 2

Average Depth: 80.4 Average largest stone moved by water: 19.6

Relative Roughness (Rr): 0.24 Rr*Rw: 0.32

Relative Width (Rw): 0.01 Power Index (PI): 242808.00

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☒ B2: Eroding banks
- ☒ B3: Avulsions

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 500 Disturbance type A3

Bank type A3/5 Channel type CPb w

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Excessive LWD and an 80m blowout is the result of a cutblock on the right side of the creek and an old road on the left side.

Exposed banks are common in Reach 6C.

LWD jams are present in Reach 6C of Monashee Creek. There is a log pile that may provide a source of LWD for future instream habitat improvement at this or other sites.

Upstream of the site there is a 70m zone of heavily aggraded channel.

Channel Assessment Procedure Field Notes Sub basin: Monashee Creek Site #: 2651

General Information

Date: 23/10/96 Crew: DS & GM & LJ Weather: Over cast

Macro reach: 7 Photo roll & frame: R:8227 F:16A & 17A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	8.0	7.7	14.7	9.2	8.7
d(cm):	60	73	75	72	69
s(%):	7	7	5	3	5
D (cm):	23	22	18.5	14	13

Average Width: 966.0 Average Slope: 5.4

Average Depth: 69.8 Average largest stone moved by water: 18.1

Relative Roughness (Rr): 0.26 Rr*Rw: 0.49

Relative Width (Rw): 0.02 Power Index (PI): 364104.72

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 300 Disturbance type A2

Bank type A4/5 Channel type SPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 7, Monashee Creek shows the extensive riffle, a midchannel bar and disturbed stonelines.

Downstream view shows the LWD function and a log jam. This site is considered to be moderately aggrading.

Channel Assessment Procedure Field Notes Sub basin: Monashee Creek Site #: 2652

General Information

Date: 23/10/96 Crew: DS & GM & LJ Weather: Over cast

Macro reach: 8 Photo roll & frame: R:8227 F:18A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	7.2	7.9	7.3	14.7	7.8
d(cm):	53	54	61	35	41
s(%):	4	2.5	2.6	2.5	4.0
D (cm):	15.5	21	18	16	18

Average Width: 898.0 Average Slope: 3.12

Average Depth: 48.8 Average largest stone moved by water: 17.7

Relative Roughness (Rr): 0.36 Rr*Rw: 0.71

Relative Width (Rw): 0.02 Power Index (PI): 136725.89

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 150 Disturbance type S

Bank type A3/4 Channel type SPb w

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of the stable Reach 8, Monashee Creek.

Channel Assessment Procedure Field Notes Sub basin: Tributary 32 to Monashee creek Site #: 2653

General Information

Date: 18/10/96 Crew: DS & SB Weather: Sun

Macro reach: 1A Photo roll & frame: R:8285 F:14 &15

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	5.9	6.0	11.0	9.2	6.7
d(cm):	110	55	87	92	55
s(%):	13.5	5	9	2	12
D (cm):	26	27	29	27	12

Average Width: 776.0 Average Slope: 8.3

Average Depth: 79.8 Average largest stone moved by water: 24.2

Relative Roughness (Rr): 0.30 Rr*Rw: 0.95

Relative Width (Rw): 0.03 Power Index (PI): 513975.84

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☒ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☒ B2: Eroding banks
- ☒ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 120 Disturbance type A3

Bank type A3/4 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Downstream view of Reach 1A, Tributary 32 to Monashee Creek shows an unnaturally wide channel due to aggradation.

View of failed landing shows the slide and unstable logs.

Channel Assessment Procedure Field Notes Sub basin: Tributary 32 to Monashee creek Site #: 2654

General Information

Date: 18/10/96 Crew: DS & SB Weather: Clear

Macro reach: 1B Photo roll & frame: R:8285 F:16,17 &18

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	8.7	8.9	7.2	13.6	14.4
d(cm):	65	43	74	72	82
s(%):	5	7	6	5.5	13
D (cm):	22	24	18	10	16

Average Width: 1056.0 Average Slope: 7.3

Average Depth: 67.2 Average largest stone moved by water: 18

Relative Roughness (Rr): 0.27 Rr*Rw: 0.46

Relative Width (Rw): 0.02 Power Index (PI): 518031.36

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☒ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 300 Disturbance type A3

Bank type A4/5 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Water is running down the road, settling on the bridge and overflowing into the creek, therefore the drainage needs to be improved.

A slide and blowdown from the west side into Reach 1, Tributary 32 to Monashee Creek.

The bridge crossing consists of two bridges on top of one another. The channel is narrowed by the abutments and if any failure occurs there will be a large impact to the creek, therefore, the bridges should be removed.

Channel Assessment Procedure Field Notes Sub basin: Tributary 32 to Monashee creek Site #: 2655

General Information

Date: 18/10/96 Crew: DS & SB Weather: Overcast

Macro reach: 1C Photo roll & frame: R:8285 F:19

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	5.2	5.0	6.4	4.3	5.3
d(cm):	82	60	40	54	52
s(%):	12	6	13.5	6.5	11
D (cm):	17	22	23	19	19

Average Width: 524.0 Average Slope: 9.8

Average Depth: 57.6 Average largest stone moved by water: 20

Relative Roughness (Rr): 0.35 Rr*Rw: 1.33

Relative Width (Rw): 0.04 Power Index (PI): 295787.52

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 150 Disturbance type S

Bank type A4/5 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Reach 1C, Tributary 32 to Monashee Creek does have stable sections upstream of the double bridge crossing. This site was considered a control site.

Channel Assessment Procedure Field Notes Sub basin: Tributary 32 to Monashee creek Site #: 2656

General Information

Date: 18/10/96 Crew: DS & SB Weather: Overcast

Macro reach: 1D Photo roll & frame: R:8285 F:20 & 21

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	4.7	4.8	13.2	5.0	6.2
d(cm):	47	54	51	78	58
s(%):	12	12	12.5	18	11.5
D (cm):	16	22	18	23	18

Average Width: 678.0 Average Slope: 13.2

Average Depth: 57.6 Average largest stone moved by water: 19.4

Relative Roughness (Rr): 0.34 Rr*Rw: 0.96

Relative Width (Rw): 0.03 Power Index (PI): 515496.96

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 130 Disturbance type A1

Bank type A4/5 Channel type SPr

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Reach 1, Tributary 32 to Monashee Creek has been impacted by a landing and a disturbed log dump. Disturbance in the channel is indicated by multiple channels.

Upstream view of site 2656 shows the disturbed stonelines, LWD function and minimal pool area.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2657

General Information

Date: 18/10/96 Crew: DS & SB Weather: Overcast

Macro reach: 8A Photo roll & frame: R:8285 F:22 & 23

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	7.9	8.0	4.7	5.6	6.8
d(cm):	55	46	50	62	56
s(%):	5	5	2.5	3	5
D (cm):	19	21	19	17	14

Average Width: 660.0 Average Slope: 4.1

Average Depth: 53.8 Average largest stone moved by water: 18

Relative Roughness (Rr): 0.33 Rr*Rw: 0.91

Relative Width (Rw): 0.03 Power Index (PI): 145582.80

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 50 Disturbance type A2

Bank type A4/5 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 8, Monashee Creek has minimal pool area, therefore, inicating an aggrading channel.

The bridge has vegetation growing on it, rotten stringers, 3 of 4 abutments are eroded, the bridge is sinking and sediment is evident in the channel. The bridge requires removal.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2658

General Information

Date: 18/10/96 Crew: DS & SB Weather: Snow

Macro reach: 8B Photo roll & frame: R:8284 F:24 & 25

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	5.1	5.6	5.2	5.8	6.4
d(cm):	71	58	55	62	41
s(%):	4.5	9	6	7	4
D (cm):	21	19	18	17	20

Average Width: 562.0 Average Slope: 6.1

Average Depth: 57.4 Average largest stone moved by water: 19

Relative Roughness (Rr): 0.33 Rr*Rw: 1.12

Relative Width (Rw): 0.03 Power Index (PI): 196778.68

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 200 Disturbance type S

Bank type A4 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 8B, Monashee Creek shows an abandoned bridge with a rotten deck.

Upstream view of Reach 8 downstream of the bridge. The main channel has 2 abandoned channels associated with it, however the channel is considered stable.

Channel Assessment Procedure Field Notes Sub basin: Railroad creek Site #: 2660

General Information

Date: 22/10/96 Crew: DS & GM Weather: Over cast

Macro reach: 1 Photo roll & frame: R:8227 F:8A, 9A, 10A & 11A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	11.3	8.6	8.7	7.6	11.2
d(cm):	36	66	54	86	99
s(%):	3	1.5	1.5	2	5
D (cm):	14	12	14	13	19

Average Width: 948.0 Average Slope: 2.6

Average Depth: 68.2 Average largest stone moved by water: 14.4

Relative Roughness (Rr): 0.21 Rr*Rw: 0.32

Relative Width (Rw): 0.02 Power Index (PI): 168099.36

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type A1

Bank type A3/5 Channel type CPw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 1, Railroad Creek shows bars and minimal pool area indicating some aggradation.

Downstream view showing LWD function.

On the access road to site 2660 an old wooden culvert is not functioning and the creek is flowing over the road. The culvert should be unplugged or replaced.

Channel Assessment Procedure Field Notes Sub basin: Tributary 1 to Railroad Creek Site #: 2661

General Information

Date: 23/10/96 Crew: GM & DS & LJ Weather: O/C

Macro reach: 1 Photo roll & frame: R:8227 F:19A & 20A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.6	1.3	3.9	3.2	2.8
d(cm):	29	27	50	22	21
s(%):	7	5	36	12	24
D (cm):	7	9	7	7.5	6.5

Average Width: 256.0 Average Slope: 16.8

Average Depth: 29.8 Average largest stone moved by water: 7.4

Relative Roughness (Rr): 0.25 Rr*Rw: 0.72

Relative Width (Rw): 0.03 Power Index (PI): 128163.84

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B3: Avulsions
- ☐ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 10 Disturbance type A1

Bank type A3/4 Channel type SPw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Downstream view of Reach 1, Tributary 1 to Railroad Creek shows a homogenous bed texture and extensive riffles indicating some aggradation.

Channel Assessment Procedure Field Notes Sub basin: Railroad Creek Site #: 2662

General Information

Date: 23/10/96 **Crew:** DS & GM & LJ **Weather:** Snow

Macro reach: 1A **Photo roll & frame:** No photo

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	0.92	0.6	0.66	0.26	0.59
d(cm):	14	18	11	14	10
s(%):	18	18	18	18	18
D (cm):	6	5.5	6	5	6

Average Width: 60.6 **Average Slope:** 18

Average Depth: 13.4 **Average largest stone moved by water:** 5.7

Relative Roughness (Rr): 0.43 **Rr*Rw:** 4.00

Relative Width (Rw): 0.09 **Power Index (PI):** 14616.72

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Woody Debris

- ☒ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 300 **Disturbance type** A1

Bank type A1/2 **Channel type** SPg

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Channel Assessment Procedure Field Notes Sub basin: Tributary 6 to Railroad Creek Site #: 2665

General Information

Date: 23/10/96 **Crew:** DS & GM & LJ **Weather:** Snow

Macro reach: 1 **Photo roll & frame:** R:8227 F:23A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	1.3	1.8	1.2	2.4	3.8
d(cm):	26	27	19	25	48
s(%):	24	23	23	29	30
D (cm):	6	5	5	5.5	5.5

Average Width: 210.0 **Average Slope:** 25.8

Average Depth: 29 **Average largest stone moved by water:** 5.4

Relative Roughness (Rr): 0.19 **Rr*Rw:** 0.48

Relative Width (Rw): 0.03 **Power Index (PI):** 157122.00

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 350 **Disturbance type** A2

Bank type **Channel type** SPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Channel Assessment Procedure Field Notes Sub basin: Tributary 6.1 to Railroad creek Site #: 2666

General Information

Date: 23/10/96 Crew: DS & GM & LJ Weather: Snow

Macro reach: 1 Photo roll & frame: R:8227 F:24A R:X F:0A&1A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	6.6	8.2	7.7	7.4	5.5
d(cm):	32	36	22	22	20
s(%):	21	31	25	29	32
D (cm):	8.5	8	9	8	7

Average Width: 708.0 Average Slope: 27.6

Average Depth: 26.4 Average largest stone moved by water: 8.1

Relative Roughness (Rr): 0.31 Rr*Rw: 0.35

Relative Width (Rw): 0.01 Power Index (PI): 515877.12

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type S

Bank type A3/4 Channel type SPrbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 1 of Tributary 6.1 to Railroad Creek shows the LWD function and extensive cascades in this stable channel.

Downstream view of Reach 1 shows the LWD function.

Upstream view of Reach1 of Tributary 9 to Railroad Creek shows the sediment in the settling pool. Sediment is predominant throughout the channel system.

Channel Assessment Procedure Field Notes Sub basin: Railroad creek Site #: 2671

General Information

Date: 20/10/96 Crew: GM & DS Weather: Snow

Macro reach: 2 Photo roll & frame: R:8227 F:14A & 15A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	9.2	7.0	6.5	6.6	9.3
d(cm):	52	67	62	40	53
s(%):	4.5	8	4.0	3.5	8.5
D (cm):	13.5	14.0	11	15	11

Average Width: 772.0 Average Slope: 5.7

Average Depth: 54.8 Average largest stone moved by water: 12.9

Relative Roughness (Rr): 0.24 Rr*Rw: 0.39

Relative Width (Rw): 0.02 Power Index (PI): 241141.92

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☒ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 65 Disturbance type A2

Bank type A3 Channel type SP bw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 2, Railroad Creek shows extensive riffles, disturbed stonelines, LWD function and a homogenous bed texture that all contribute to the aggrading nature of the channel.

Channel Assessment Procedure Field Notes Sub basin: Tributary 16 to Railroad creek Site #: 2672

General Information

Date: 20/10/96 Crew: GM & DS Weather: O/C

Macro reach: 1 Photo roll & frame: R:8227 F:12A & 13A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	3.4	3.6	2.5	5.2	2.4
d(cm):	78	50	46	78	46
s(%):	10	8.5	8	6.5	7.5
D (cm):	11	12	9	11	14

Average Width: 342.0 Average Slope: 8.1

Average Depth: 59.6 Average largest stone moved by water: 11.4

Relative Roughness (Rr): 0.19 Rr*Rw: 0.64

Relative Width (Rw): 0.03 Power Index (PI): 165103.92

Field Indicators of Disturbance

Bed sediment

- ☒ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☐ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type S

Bank type A3/4 Channel type SPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Downstream view of Reach 1, Tributary 16 to Railroad Creek showing a stable channel with minor disturbance of multiple channels.

Upstream view of Reach 1 shows the stable condition of the reach.

Channel Assessment Procedure Field Notes Sub basin: Railroad creek Site #: 2673

General Information

Date: 17/10/96 Crew: SB & DS Weather: Snowing

Macro reach: 2 Photo roll & frame: R:8285 F:5 & 6

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	3.4	2.4	2.8	2.6	4.5
d(cm):	35	43	24	33	31
s(%):	8	19	10	18	15
D (cm):	12	10	13	10	12

Average Width: 314.0 Average Slope: 14

Average Depth: 33.2 Average largest stone moved by water: 11.4

Relative Roughness (Rr): 0.34 Rr*Rw: 1.25

Relative Width (Rw): 0.04 Power Index (PI): 145947.20

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☒ D1: Small woody debris
- ☒ D2: LWD function
- ☐ D3: Recently formed LWD jams

Distance (m) 130 Disturbance type S

Bank type A4 Channel type SPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of unnatural section of Reach 2, Railroad Creek upstream of a lake. The normally cobble bed texture has been replaced with fine dirt.

Upstream view of natural cobble channel with minimal pool area and LWD function.

Downstream view of Reach 2, Pinnacle Creek shows the bridge crossing over a stable channel.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2675

General Information

Date: 24/10/96 Crew: GM & SB Weather: Snowing

Macro reach: 6A Photo roll & frame: R:8225 F:10A,11A,12A,13A&14A

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	13.1	16.2	16.2	11.7	12.9
d(cm):	90	71	55	92	140
s(%):	2	3	1	1	3
D (cm):	25	22	23	25	27

Average Width: 1402.0 Average Slope: 2

Average Depth: 89.6 Average largest stone moved by water: 24.4

Relative Roughness (Rr): 0.27 Rr*Rw: 0.47

Relative Width (Rw): 0.02 Power Index (PI): 251238.40

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☒ B1: Abandonded channels
- ☐ B3: Avulsions
- ☒ B2: Eroding banks

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type D1

Bank type A1/4/5 Channel type RPb

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Upstream view of Reach 6, Monashee Creek shows sediment wedges, extensive riffles and minimal pools.

Channel Assessment Procedure Field Notes Sub basin: Monashee creek Site #: 2676

General Information

Date: 24/10/96 Crew: DS & JK Weather: Clear

Macro reach: 6D Photo roll & frame: R:X F:15

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	12.3	10.4	9.6	8.5	10.3
d(cm):	48	75	66	54	42
s(%):	4	4	2	2	2
D (cm):	29	24	30	22	32

Average Width: 1022.0 Average Slope: 2.8

Average Depth: 57 Average largest stone moved by water: 27.4

Relative Roughness (Rr): 0.48 Rr*Rw: 1.29

Relative Width (Rw): 0.03 Power Index (PI): 163111.20

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☒ S3: Sediment wedges
- ☒ S4: Extensive bars
- ☒ S5: Extensively scoured zones

Morphology

- ☒ C1: Extensive riffles or cascades
- ☒ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☐ C4: Multiple channels or braids
- ☒ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type D3

Bank type A3/4 Channel type CPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

Downstream view of Reach 6, Monashee Creek shows LWD parallel to the channel bank, extensive riffle, extensive scouring, minimal pool area and disturbed stonelines.

View of Reach 6 shows solifluction of the south bank and unstable nature of the floodplain.

Upstream view shows multiple channels, potential off-channel habitat and aggradation.

Upstream view of Reach 2, Tributary 14 of Monashee Creek shows a stable Step-pool channel.

Channel Assessment Procedure Field Notes Sub basin: Monashee Pass Site #: 2678

General Information

Date: 29/10/96 Crew: DS & CU Weather: Sunny

Macro reach: 4 Photo roll & frame: R:X F:16

Measurements and Calculations

Station:	1	2	3	4	5
Wb (m):	7.7	3.8	3.2	3.7	3.0
d(cm):	86	54	43	46	64
s(%):	6.5	9.0	10.0	8.5	8.5
D (cm):	13	10	12	12	15

Average Width: 428.0 Average Slope: 8.5

Average Depth: 58.6 Average largest stone moved by water: 12.4

Relative Roughness (Rr): 0.21 Rr*Rw: 0.61

Relative Width (Rw): 0.03 Power Index (PI): 213186.80

Field Indicators of Disturbance

Bed sediment

- ☐ S1: Homogeneous bed texture
- ☐ S2: Sediment fingers
- ☐ S3: Sediment wedges
- ☐ S4: Extensive bars
- ☐ S5: Extensively scoured zones

Morphology

- ☐ C1: Extensive riffles or cascades
- ☐ C2: Minimal pool area
- ☐ C3: Elevated mid-channel bars
- ☒ C4: Multiple channels or braids
- ☐ C5: Disturbed stone lines

Banks

- ☐ B1: Abandonded channels
- ☐ B2: Eroding banks
- ☐ B3: Avulsions

Woody Debris

- ☐ D1: Small woody debris
- ☒ D2: LWD function
- ☒ D3: Recently formed LWD jams

Distance (m) 100 Disturbance type A1

Bank type A2/3 Channel type SPbw

A (Alluvial): 1=silt, 2=sand, 3=gravel, 4=cobble, 5=boulder
(e.g. A 4/5=Alluvial, cobble over boulder)
N (Non-alluvial): 1=till, 2=colluvium, 3=bedrock
(e.g. N 3=Non-alluvial bedrock)

No defined channel was located in the thick vegetation at this site.

Appendix 3B: Form 2: Small and Medium Creek Disturbance Summary

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Half Mile Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2625	1	SPb	400	A2			100	

Summary Information:

Sum Moderate and Severe	100
Sum % Moderate and Severe	25
Channel Impact Value	0.8
Impact	High

Sum Moderate	Sum Severe
100	

Sub-basin: Monashee Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2628A	5A	CPbw	4220	D2			90	
2629	5B	RPb		A2			30	
2630	5C	RPcw		A2			40	
2641	5D	CPb		A2			20	
2642	5E	CPbw		A3				300
2615	5F	RPcw		A2			60	
2613	5G	RPc		A1		60		

Summary Information:

Sum Moderate and Severe	540
Sum % Moderate and Severe	12.7962
Channel Impact Value	0.9
Impact	High

Sum Moderate	Sum Severe
240	300

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2675	6A	RPcw	6720	D1		100		
2647A	6B	RPcw		D3				200
2650	6C	CPbw		A3				500
2676	6D	CPbw		D3				100

Summary Information:

Sum Moderate and Severe	800
Sum % Moderate and Severe	11.9047
Channel Impact Value	0.7
Impact	Moderate

Sum Moderate	Sum Severe
	800

Sub-basin: Monashee Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2651	7	SPbw	1220	A2			300	

Summary Information:

Sum Moderate and Severe	300
Sum % Moderate and Severe	24.5901
Channel Impact Value	0.8
Impact	High

Sum Moderate	Sum Severe
300	

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2652	8A	CPb w	4500	S	150			
2657	8B	SPb		A2			60	
2658	8B	SPb		A2			60	

Summary Information:

Sum Moderate and Severe	120
Sum % Moderate and Severe	2.66666
Channel Impact Value	0.3
Impact	Low

Sum Moderate	Sum Severe
120	

Sub-basin: Monashee Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2627	4	CPcw	1260	D1		50		

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	Low

Sum Moderate	Sum Severe

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Creek Trib. 14

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2677	2	SPbw	2040	S	80			

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	None

Sum Moderate	Sum Severe

Sub-basin: Monashee Creek Trib. 14

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2612	1	SPr	440	A2			30	

Summary Information:

Sum Moderate and Severe	30
Sum % Moderate and Severe	6.81818
Channel Impact Value	0.5
Impact	Moderate

Sum Moderate	Sum Severe
30	

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Creek Trib. 19

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2645	2	SPb	1600	S	300			

Summary Information:

	Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact None

Sub-basin: Monashee Creek Trib. 24

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2647B	1	SPb	200	A1		100		

Summary Information:

	Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact Low

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Creek Trib. 27

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2648	1	SPb	600	D1		100		

Summary Information:

Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact Low

Sub-basin: Monashee Creek Trib. 28

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2619	2	SPb w	500	S	100			

Summary Information:

Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact None

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Creek Trib. 32

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2653	1A	SPb	3000	A3				120
2654	1B	SPb		A3				300
2655	1C	SPb		S	150			
2656	1D	SPr		A1		130		

Summary Information:

Sum Moderate and Severe	420
Sum % Moderate and Severe	14
Channel Impact Value	0.7
Impact	Moderate

Sum Moderate	Sum Severe
	420

Sub-basin: Monashee Creek Trib. 7 (Cedar Gulch)

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2624	2	SPr	2640	A2			100	

Summary Information:

Sum Moderate and Severe	100
Sum % Moderate and Severe	3.78787
Channel Impact Value	0.4
Impact	Low

Sum Moderate	Sum Severe
100	

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Pass Cr. Trib. 5

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2611	2	SPb	1200	A3				40

Summary Information:

Sum Moderate and Severe	40
Sum % Moderate and Severe	3.33333
Channel Impact Value	0.4
Impact	Low

Sum Moderate	Sum Severe
	40

Sub-basin: Monashee Pass Cr. Trib. 7

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2607	1	SPb	300	D1		80		

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	Low

Sum Moderate	Sum Severe

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Pass Cr. Trib. 7.6

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2621	1A	SPr	920	D2			50	
2620	1B	SPr		D2			200	

Summary Information:

Sum Moderate and Severe	250
Sum % Moderate and Severe	27.1739
Channel Impact Value	0.8
Impact	High

Sum Moderate	Sum Severe
250	

Sub-basin: Monashee Pass Cr. Trib. 8

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2608	1	SPb	540	D2			65	

Summary Information:

Sum Moderate and Severe	65
Sum % Moderate and Severe	12.0370
Channel Impact Value	0.7
Impact	Moderate

Sum Moderate	Sum Severe
65	

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Pass Cr. Trib. 9

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2610	1B	RPcw	600	D3				105

Summary Information:

Sum Moderate and Severe	105
Sum % Moderate and Severe	17.5
Channel Impact Value	0.60
Impact	Moderate

Sum Moderate	Sum Severe
	105

Sub-basin: Monashee Pass Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2604	1B	CPbw	2200	A2			50	
2603	1A	SPb		S	30			

Summary Information:

Sum Moderate and Severe	50
Sum % Moderate and Severe	2.27272
Channel Impact Value	0.3
Impact	Low

Sum Moderate	Sum Severe
50	

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Pinnacle Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2670	1	SPb	600	S	40			

Summary Information:

Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact None

Sub-basin: Pinnacle Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2674	2	SPb	4060	S	30			

Summary Information:

Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact None

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Railroad Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2660	1	CPbw	3100	A1		100		

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	Low

Sum Moderate	Sum Severe

Sub-basin: Railroad Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance None	Low	Moderate	Severe
2671	2	SPbw	2400	A2			65	

Summary Information:

Sum Moderate and Severe	65
Sum % Moderate and Severe	2.70833
Channel Impact Value	0.3
Impact	Low

Sum Moderate	Sum Severe
65	

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Railroad Creek Trib. 1

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2661	1	SPbw	400	A1		10		

Summary Information:

	Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact Low

Sub-basin: Railroad Creek Trib. 16

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2673	2	SPb	1200	S	130			

Summary Information:

	Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact None

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Railroad Creek Trib. 16

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2672	1	SPbw	1200	S	100			

Summary Information:

	Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact None

Sub-basin: Railroad Creek Trib. 4

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2662	1	SPb	200	A1		300		

Summary Information:

	Sum Moderate	Sum Severe

Sum Moderate and Severe
Sum % Moderate and Severe 0
Channel Impact Value 0
Impact Low

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Railroad Creek Trib. 6

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2665	1	SPbw	600	A2			350	

Summary Information:

Sum Moderate and Severe	350
Sum % Moderate and Severe	58.3333
Channel Impact Value	0.9
Impact	High

Sum Moderate	Sum Severe
350	

Sub-basin: Railroad Creek Trib. 6.1

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2666	1	SPrw	1880	S	100			

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	None

Sum Moderate	Sum Severe

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Railroad Creek Trib. 9

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2669	1	SPbw	400	D3				30

Summary Information:

Sum Moderate and Severe	30
Sum % Moderate and Severe	7.5
Channel Impact Value	0.6
Impact	Moderate

Sum Moderate	Sum Severe
	30

Sub-basin: Yeoward Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2631	2	SPbw	2400	D2			60	

Summary Information:

Sum Moderate and Severe	60
Sum % Moderate and Severe	2.5
Channel Impact Value	0.3
Impact	Low

Sum Moderate	Sum Severe
60	

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Yeoward Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2628B	1	SPbw	2100	A2			30	

Summary Information:

Sum Moderate and Severe	30
Sum % Moderate and Severe	1.42857
Channel Impact Value	0.2
Impact	Low

Sum Moderate	Sum Severe
30	

Sub-basin: Yeoward Creek

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2635	3	RPcw	3600	A1		20		

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	Low

Sum Moderate	Sum Severe

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Yeoward Creek Trib. 10

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2638	1	CPb	2500	A2			30	

Summary Information:

Sum Moderate and Severe	30
Sum % Moderate and Severe	1.2
Channel Impact Value	0.2
Impact	Low

Sum Moderate	Sum Severe
30	

Sub-basin: Yeoward Creek Trib. 11

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2640	1	SPbw	800	A1		30		

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	Low

Sum Moderate	Sum Severe

Channel Assessment Procedure: Small and Moderate Creek Disturbance Summary

Sub-basin: Yeoward Creek Trib. 8

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2633	1	SPr	900	D1		60		

Summary Information:

Sum Moderate and Severe	
Sum % Moderate and Severe	0
Channel Impact Value	0
Impact	Low

Sum Moderate	Sum Severe

Sub-basin: Yeoward Creek Trib. 9

Site	Reach	Channel type	Reach length	Disturbance Level	Stream length in each class (m) of disturbance			
					None	Low	Moderate	Severe
2636	1A	SPb	1100	A2			1000	
2637	1B	SPbw		S				

Summary Information:

Sum Moderate and Severe	1000
Sum % Moderate and Severe	90.9090
Channel Impact Value	1
Impact	High

Sum Moderate	Sum Severe
1000	

Channel Assessment Procedure

Wildstone Group

Small and Moderate Creek Disturbance Summary

Sub-basin: Monashee Pass Creek

Site	Reach	Channel type	Reach length (m)	Disturbance Level	Stream length (m) in each class of disturbance: None	Low	Moderate	Severe
2606	2	CPbw	2000	D1		100		

Summary Information:

Sum Moderate and Severe:
Sum % Moderate and Severe: 0
CIV: 0
Impact: Low

Sum Moderate	Sum Severe

Sub-basin: Monashee Pass Creek

Site	Reach	Channel type	Reach length (m)	Disturbance Level	Stream length (m) in each class of disturbance: None	Low	Moderate	Severe
2609	3	CPcw	800	A3				80

Summary Information:

Sum Moderate and Severe: 80
Sum % Moderate and Severe: 10
CIV: 0.45
Impact: Moderate

Sum Moderate	Sum Severe
	80

Channel Assessment Procedure

Small and Moderate Creek Disturbance Summary

Wildstone Group

Sub-basin: Yeoward Creek Trib. 10A

Site	Reach	Channel type	Reach length (m)	Disturbance Level	Stream length (m) in each class of disturbance: None	Low	Moderate	Severe
2639	1	SP	500	A1		41		

Summary Information:

Sum Moderate and Severe:
Sum % Moderate and Severe: 0
CIV: 0
Impact: Low

Sum Moderate	Sum Severe

Sub-basin: Monashee Pass Creek

Site	Reach	Channel type	Reach length (m)	Disturbance Level	Stream length (m) in each class of disturbance: None	Low	Moderate	Severe
2678	4A	SPbw	2400	A1		100		
2622	4B	SPbw		S				

Summary Information:

Sum Moderate and Severe:
Sum % Moderate and Severe: 0
CIV: 0
Impact: Low

Sum Moderate	Sum Severe

Sub-basin: Yeoward Creek Trib. 7A

Site	Reach	Channel type	Reach length (m)	Disturbance Level	Stream length (m) in each class of disturbance: None	Low	Moderate	Severe
2632	1	SPr	320	S	49			

Summary Information:

Sum Moderate and Severe:
Sum % Moderate and Severe: 0
CIV: 0
Impact: None

Sum Moderate	Sum Severe