

**APPENDIX 3. General field observations, including forest inventory classification, visual estimate of slope vegetation, presence of debris fan, composition of vegetation in debris, annual catastrophic sediment input, evidence of river damming, bank undercutting, location of initial failure, and presence of water in slide channel**



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Avalanche Site	Forest Inventory Classification*	Visual Estimate of Slope Vegetation	Presence of Debris Fan	Composition of Vegetation in Debris	Annual or Catastrophic Sediment Input	Evidence of River Damming/Constriction	Bank Undercutting	Location of Initial Failure	Presence of H <sub>2</sub> O in Slide Channel
2a	M2C	-	Yes	-	Initial catastrophic Annual from debris fan	Initial dam Long term constriction	No	?	Trickle
2b	M2C	-	Yes	-	Initial catastrophic Annual from debris fan	Initial dam Long term constriction	No	Slippage on middle and upper slope	No
4a	H2C	-	Yes	-	Initial catastrophic Annual from debris fan	Initial dam Long term constriction	No	?	No
4b	H2C	-	Yes	-	Initial catastrophic Annual from debris fan	Partial dam Long term constriction	No	?	No
6	M3C	-	No	na	Annual	No	?	Bank failure	No
7	M3C	-	Yes	Mixed soft and hardwood	Catastrophic	Yes	No	Slippage on middle and upper slope	No
9a	S3C	Predominantly softwood	Yes	Living softwood	Catastrophic (boulders)	Yes (minor)	No	?	No
9b	S3C	-	na	na	Initial catastrophic Annual from avalanche channel	-	No	?	No
9c	M2C	-	na	na	Catastrophic	-	No	?	No
9d	S3C	-	na	na	Catastrophic	-	No	?	No
9e	S3C	-	na	na	Catastrophic	-	No	?	No
9f	M2C	Predominantly softwood	Yes	Predominantly decomposed softwood	Catastrophic	Constriction	No	?	No
12	S3B	Mixed hardwood and softwood	Yes	100% decomposed softwood	Initial catastrophic Annual from debris fan	Constriction	No	Rock topple on middle and upper slope	No

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13	S3B	Mixed hardwood and softwood	Yes	Not visible	na	na	na	Slippage on middle and upper slope	No
14	S3B	-	Yes	Not visible	na	na	na	Slippage on middle and upper slope	No
15	S3C	45% dead softwood 50% live softwood 5% hardwood	Yes	Not visible	na	na	na	Rotational slump on middle slope	No
16	M2C	50/50 living and dead mature softwood	Yes	> 90% decomposed softwood	Annual from debris fan	50% blockage	?	?	No
17	S3C	Predominantly softwood	Yes	Predominantly decomposed softwood	Initial catastrophic Minor annual	Yes 75% to 100% initial blockage	?	?	No
18	M2C	-	Yes	Predominantly hardwood	na 3 m x 4 m x 6 m boulders	Minor constriction	?	Rock fall (basal undercut)	No
19	M2C	Mixed hardwood and softwood	Yes	-	Initial catastrophic Annual from debris fan	Partial constriction	No	Rock topple on upper slope	No
20	M2C	-	No	na	Catastrophic	No	?	Slippage on middle and upper slope	No
21	H2C	Mixed hardwood and softwood	Yes	Mixed; decomposed softwood and hardwood	Annual	No	No	Slippage on middle slope	No
23	H2C	-	Yes	-	Annual	No	Yes	Rational slump due to undercutting	No
24	H2C	-	-	-	Minor annual	?	?	Rock topple (basal undercut)	No
25	H2C	Mixed; with dead softwood at top, hardwood along slide channel	Remnant on opposite bank	na	Initial catastrophic Annual from avalanche chute	Yes Dammed 38 m wide river	No	Slippage on middle and upper slope	No
27	H2C	-	Yes	Not visible	Minor annual	No	No	Slippage on middle and upper slope	No

Appendix 3. (continued)

28	H2C	-	No	na	Initial catastrophic	No	No	Slippage on middle and upper slope	No
31	M3C	-	Yes	Not visible	Initial catastrophic Annual from avalanche channel	Boulder rapids along proximal bank	No	Slippage on upper slope	No
32	M1B	50% hardwood 25% dead softwood 25% live softwood	No	na	Catastrophic	No	Partial cause	Slippage along slope	No
33	M2C	Much more dead softwood than living hardwood	Yes	Mostly decomposed softwood	Catastrophic and Annual	Obliterated 160 m of brook	No	Slippage in middle and upper slope	No
34	S3B	> 90% dead softwood; small, young hardwood regrowth	Yes	-	Initial catastrophic Minor annual	Minor constriction	No	?	No
35	S3C	Living and dead softwood; young hardwood regrowth	Yes	Decomposed softwood	Initial catastrophic	Minor constriction	?	Slippage on upper slope	No
36	M2C	Top: predominantly dead softwood Bottom: living softwood	No	-	Initial catastrophic	-	Bank loading from above	Slippage on upper slope	No
37	S3C	75% dead softwood 16% live softwood 9% live hardwood	No	-	Catastrophic	-	Yes	Bank collapse	No
38	S3C	50% dead softwood 35% live softwood 15% live hardwood	No	-	Catastrophic	-	No	Slippage on middle and upper slope	No
39	S3C	35% dead softwood 40% live softwood 25% live hardwood	No	Mainly decomposed softwood	Catastrophic	-	No	Slippage on middle and upper slope	Minor
40	S3C	10% dead softwood 30% live softwood 60% live hardwood	Yes	Mainly decomposed softwood	Initial catastrophic Annual from debris fan	Yes 30% blockage	No	Slippage on middle and upper slope	No

Appendix 3. (continued)

41	H3C	-	Mostly eroded	-	Initial catastrophic Annual for several years there after	Yes; crossed small brook; 100% initial blockage	Possible	Rotational slump (basal undercutting)	No
42	S3C	50% living softwood 50% living hardwood	Yes	Large living hardwood on top of debris	Initial catastrophic Annual from debris fan	Yes; 100% initial blockage	?	Slippage on middle and upper slope	Minor
43	S3C	Top: dead softwood Bottom: living softwood and living hardwood	Yes	Not visible	Initial catastrophic Annual from debris fan	Yes; 100% initial blockage	?	Slippage on middle and upper slope	No
44	S3C	Mainly living and dead softwood	Yes	Softwood	Initial catastrophic Annual from debris fan	Minor	No	Slippage on upper slope	No
45	M3C	na	Yes	na	Initial catastrophic Minor annual from debris fan	Yes; Up to 100% initial blockage	Yes	Rock fall (bank undercutting)	No
46	M3C/H2C	Initially 50% dead softwood 50% live hardwood	Yes	Predominantly decomposed softwood	na	na	na	Slippage on upper slope	No
47	S3C/M1C	-	No	-	Minor catastrophic Minor annual	No	?	?	No
48	M2C	-	Yes (small)	-	Initial catastrophic Massive annual input from till	No	No	?	No
49	M2C	-	Yes (small)	-	Initial catastrophic Massive annual input from till	No	No	?	No
50	M2C	60% living softwood 40% living hardwood	Debris fan stabilized by vegetation	-	Initial catastrophic Minor annual	No	No	?	No
51	S2C	50% dead softwood 50% live softwood Rapid hardwood revegetation	Yes	-	Annual during flood stages	No	No	Slippage on middle and upper slope	No
52	S2B	-	Yes	-	Annual	Partial on proximal bank	?	?	No
53a	S3C	Predominantly dead softwood Rapid revegetation by hardwood	Yes (small)	-	Initial catastrophic Annual from grus in avalanche channel	Minor	?	Slippage on middle and upper slope	No
53b	S3C	Predominantly dead softwood Rapid revegetation by hardwood	Yes (small)	-	Initial catastrophic Annual from grus in avalanche channel	Minor	?	Slippage on middle and upper slope	No
54	M2C	-	Yes	No	na	na	na	?	No

na = not applicable; - = no observation; ? = unknown; \* = simplification of forest classification used by the Nova Scotia Department of Lands and Forests in which they classify forest areas with respect to the types of trees present, their height and density; see section 3.4.