

Risk Assessment by Sector

Likelihood

The probability of a Hazard occurring and affecting water.	1	unlikely
	2	unlikely
	4	possible
	8	probable
	16	almost certain

Severity

The level of impact on source water due to occurrence.	1	insignificant
	2	minor
	4	moderate
	8	severe
	16	catastrophic

Certainty

The team's confidence in their assessment.	1	uncertain
	2	uncertain
	4	perhaps
	8	certain
	16	very certain

Hazard

#	General/Other	Likelihood	Severity	Risk	Certainty
1	Illegal dumping into waste water systems	4	16	64	16
2	Illegal dumping rest of watershed	16	1	16	8
3	Deleterious substances	8	1	8	4
4	Development	16	1	16	8
5	Wildlife faeces	16	1	16	8
6	Wildlife pathogens	8	2	16	8
7	Active Landfills (includes operations, fires and leachate)	4	2	8	8
8	Inactive/abandoned landfills	4	2	8	4
9	Application of chemicals for weeds	8	2	16	4
10	Invasives/weeds	2	1	2	4
11	BC portion of watershed	8	2	16	1
	Land disposal (from drilling or waste treatment sludge)	2	1	2	8

Agriculture		Likelihood	Severity	Risk	Certainty
12	Feedlots/confined feeding operations	8	2	16	4
13	Application of chemicals	16	1	16	8
14	Storage of chemicals	4	1	4	8
15	Livestock grazing	8	1	8	2
16	Manure disposal	16	2	32	4
17	Ditching/draining	16	1	16	8
18	Land clearing/tree location	8	1	8	4
19	Garbage burning	1	1	1	4

Forestry		Likelihood	Severity	Risk	Certainty
20	Cutblocks (includes normal operation, runoff, etc.)	16	1	16	8
21	Temporary Harvest Roads	16	4	64	8
22	Wood storage yards	2	1	2	8
23	Spills	2	1	2	8
24	Rutting	4	1	4	8
25	Forest fires (not controlled)	8	8	64	4
26	Fire-fighting chemical	4	2	8	4
27	Herbicide	2	1	2	8
28	Camps	2	1	2	8
29	Mountain Pine Beetle/pests	1	1	1	8

Oil & Gas		Likelihood	Severity	Risk	Certainty
30	Pipeline releases	2	4	8	4
31	Surface spills	2	1	2	8
32	Subsurface spills (casing failures)	1	1	1	1
33	Air emissions/flaring	1	1	1	2
34	Suspended wells and pipelines	1	1	1	8
35	Linear disturbance incl seismic lines and pipelines (pathway)	4	1	4	4
36	Pads	2	1	2	4
37	Water access infrastructure	2	2	4	4
38	Herbicide spraying	4	2	8	8
39	Camps	2	1	2	4
40	Sumps new	1	1	1	8
41	sumps old	4	2	8	4

Recreational		Likelihood	Severity	Risk	Certainty
42	Erosion caused by OHVs	16	1	16	8
43	Vehicle operation in or near water bodies (includes erosion and deposition of a deleterious substance)	16	2	32	8

44	Unauthorized boat launches	4	2	8	4
45	Boat operation leading to incidental discharge and emissions	16	1	16	8
46	Sediment due to wake or boat disturbing channel	8	1	8	8
47	Recreational development (new & existing)	8	2	16	8
48	Parks outhouses	2	2	4	8

Rural - residential properties not agricultural and not in subdivisions		Likelihood	Severity	Risk	Certainty
49	Sediment from rural properties	16	1	16	8
50	Runoff in stormwater management systems	16	1	16	16
51	Spill of Hazardous materials (lawnmower, recreational vehicles, chainsaws, etc)	1	1	1	16
52	Garbage burning (both barrel and otherwise)	1	1	1	16
53	Improper Hazardous waste disposal	8	2	16	8
54	Water wells	2	4	8	1
55	Septic systems/private systems	2	2	4	4

Transportation		Likelihood	Severity	Risk	Certainty
56	Highway 40 Bridge Spill	2	8	16	8
57	Road salt/de-icer application	16	1	16	8
58	Road salt storage (includes snow dump)	2	2	4	4
59	Crossings/culverts/ditches (this more of a pathway)	16	2	32	4
60	Trucking (primarily Transportation of Dangerous Goods)	2	8	16	8
61	Construction	16	1	16	8
62	Petroleum from vehicles day to day operation	16	1	16	4
63	Calcium application for dust control	16	1	16	4
64	Railway spills				
65	Railway oil/grease/fuel leakage	16	1	16	8
66	Creosote Ties				
67	De-icing at GP airport	16	1	16	8
68	Tarmac run-off	4	1	4	8

Urban		Likelihood	Severity	Risk	Certainty
69	Institutional/commercial/industrial	4	2	8	1
70	Stormwater (pathway)	8	2	16	2
71	Yard care	4	2	8	4

Water/Wastewater infrastructure		Likelihood	Severity	Risk	Certainty
72	Boat hitting water intake	1	1	1	4

73	Lagoons (breach or failure)	2	2	4	4
74	Stormwater (pathway)	16	2	32	4
75	Camp wastewater	2	1	2	8
76	Drought	2	1	2	4
77	Flooding	16	2	32	4
78	Bank slumping	8	2	16	4
79	Discharges (treated wastewater intentional releases)	16	1	16	8

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