Summary of Sediment Quality Guidelines from North America

Jurisdiction	Type	Metals														
		Arsenic	Cadmium	Chromium (total)	Copper	Lead	Manganese	Mercury*	Molybdenum	Nickel	Selenium	Silver	Thallium	Uranium	Vanadium	Zinc
Quebec (DSEE)	REL	4.1	0.33	25	22	25	-	0.094	-	ND	-	-	-	-	-	80
Canada (CCME)	ISQC/TEL	5.9	0.6	37.3	35.7	35	-	0.17	-	-	-	-	-	-	-	123
Quebec (DSEE)	TEL	5.9	0.6	37	36	35	-	0.17	-	ND	-	-	-	-	-	120
Ontario (OMOEE)	LEL	6	0.6	26	16	31	460	0.2	-	16	-	-	-	-	-	120
US EPA (Region IV - FDEP)	TEL	7.24	-	52.3	18.7	30.2	-	0.13	-	-	-	0.73	-	-	-	124
Quebec (DSEE)	OEL	7.6	1.7	57	63	52	-	0.25	-	47	-	-	-	-	-	170
US EPA (OSWER)	ER-L	8.2	1.2	81	34	47	-	0.15	-	21	-	1	-	-	-	150
US EPA (Region III)	BTAG SSB	9.8	0.99	43.4	31.6	35.8	460	0.18	-	22.7	2	1	-	-	-	121
Minnesota (MPCA)	$SQT_{Level\ 1}$	9.8	0.99	43	32	36	-	0.18	-	23		-	-	-	-	120
NewYork (NYSDEC)	Class A	10	1	43	32	36	-	0.2	-	23	-	1	-	-	-	120
British Columbia (MWLAP)	$SedQC_{SCS}$	11	2.2	56	120	57	-	0.3	-	-	-	-	-	-	-	200
US EPA (ARCS)	TEC	12.1	0.592	56	28	34.2	1673	-	-	39.6	-	-	-	-	-	159
Washington (WSDOE)	SCO	14	2.1	72	400	360	-	0.66		26	11	0.57	-	-	-	3200
Canada (CCME)	PEL	17	3.5	90	197	91.3	-	0.486	-	-	-	-	-	-	-	315
Quebec (DSEE)	PEL	17	3.5	90	200	91	-	0.49	-	ND	-	-	-	-	-	310
NovaScotia (NSE)	EQS	17	3.5	90	197	91.3	1100	0.486	-	75	2	-	-	-	-	315
British Columbia (MWLAP)	$SedQC_{TCS}$	20	4.2	110	240	110	-	0.58	-	-	-	-	-	-	-	380
Quebec (DSEE)	FEL	23	12	120	700	150	-	0.87	-	ND	-	-	-	-	-	770
Ontario (OMOEE)	SEL	33	10	110	110	250	1100	2	-	75	-	-	-	-	-	820
Minnesota (MPCA)	$SQT_{Level\ 2}$	33	5	110	150	130	-	1.1	-	49		-	-	-	-	460
NewYork (NYSDEC)	Class C	33	5	110	150	130	-	1	-	49	-	2.2	-	-	-	460
US EPA (ARCS)	PEC	57	11.7	159	77.7	396	1081	-	-	38.5	-	-	-	-	-	1532
US EPA (OSWER)	ER-M	70	9.6	370	270	-	-	0.71	-	51.6	-	3.7	-	-	-	410
US EPA (ARCS)	NEC	92.9	41.1	312	54.8	68.7	819	-	-	37.9	-	-	-	-	-	541
Washington (WSDOE)	CSL	120	5.4	88	1200	1300	-	0.8	-	110	20	1.7	-	-	-	4200
Ontario (OMOEE)	NEL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NewYork (NYSDEC)	$BSGV_{human}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NewYork (NYSDEC)	$BSGV_{wildlife}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US DOE	EqP_{NAWQC}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US DOE	$EqP_{secondary}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US DOE	EqP_{Fish}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US DOE	$EqP_{Daphnids}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US DOE	$EqP_{Nondaphnid\ invert.}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US EPA (OSWER)	SQB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

US EPA (OSWER)	SQC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Jurisdicition	Type	Polycyclic Aromatic Hydrocarbons (PAHs)															
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Low MW PAHs	High MW PAHs	Total PAHs
Quebec (DSEE)	REL	0.0037	0.0033	0.016	0.014	0.011	0.026	0.0033	0.047	0.01	0.016	0.017	0.025	0.029	-	-	-
Canada (CCME)	ISQC/TEL	0.0067	0.0059	0.0469	0.0317	0.0319	0.0571	0.0062	0.111	0.0212	0.0202	0.0346	0.0419	0.053	-	-	-
Quebec (DSEE)	TEL	0.0067	0.0059	0.047	0.032	0.032	0.057	0.0062	0.11	0.021	0.02	0.035	0.042	0.053	-	-	-
Ontario (OMOEE)	LEL	-	-	0.22	0.32	0.37	0.34	0.06	0.75	0.19	-	-	-	0.49	-	-	4
US EPA (Region IV - FDEP)	TEL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.655	1.684
Quebec (DSEE)	OEL	0.021	0.03	0.11	0.12	0.15	0.24	0.043	0.45	0.061	0.063	0.12	0.13	0.23	-	-	-
US EPA (OSWER)	ER-L	0.016	0.044	0.0853	0.261	0.43	0.384	0.0634	0.6	0.019	0.07	0.16	0.24	0.66	0.552	1.7	4.022
US EPA (Region III)	BTAG SSB	0.0067	0.0059	0.0572	0.108	0.15	0.166	0.033	0.423	0.0774	0.0202	0.176	0.204	0.195	-	-	-
Minnesota (MPCA)	$SQT_{Level\ 1}$	0.0067	0.0059	0.057	0.11	0.15	0.17	0.033	0.42	0.077	0.02	0.18	0.2	0.2	-	-	1.6
NewYork (NYSDEC)	Class A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
British Columbia (MWLAP)	$SedQC_{SCS}$	0.055	0.08	0.15	0.24	0.48	0.53	0.084	1.5	0.089	0.12	0.24	0.32	0.54	-	-	10
US EPA (ARCS)	TEC	-	-	0.0316	0.26	0.35	0.5	-	0.0642	0.0346	-	0.0328	-	0.57	0.786	2.9	3.553
Washington (WSDOE)	SCO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Canada (CCME)	PEL	0.0889	0.128	0.245	0.385	0.782	0.862	0.135	2.355	0.144	0.201	0.391	0.515	0.875	-	-	-
Quebec (DSEE)	PEL	0.089	0.13	0.24	0.39	0.78	0.86	0.14	2.4	0.14	0.2	0.39	0.52	0.88	-	-	-
NovaScotia (NSE)	EQS	0.0889	0.128	0.245	0.385	0.782	0.862	0.135	2.355	0.144	0.201	0.391	0.515	0.875	-	-	-
British Columbia (MWLAP)	$SedQC_{TCS}$	0.11	0.15	0.29	0.46	0.94	1	0.16	2.8	0.17	0.24	0.47	0.62	1.1	-	-	20
Quebec (DSEE)	FEL	0.94	0.34	1.1	0.76	3.2	1.6	0.2	4.9	1.2	0.38	1.2	1.1	1.5	-	-	-
Ontario (OMOEE)	SEL	-	-	3.7	15	14.4	4.6	1.3	10.2	1.6	-	-	-	8.5			100
Minnesota (MPCA)	$SQT_{Level\ 2}$	0.089	0.13	0.85	1.1	1.5	1.3	0.14	2.2	0.54	0.2	0.56	1.2	1.5	-	-	23
NewYork (NYSDEC)	Class C	4.91	4.52	5.94	8.41	9.64	8.43	11.22	7.08	5.39	-	3.85	5.97	6.98	-	-	45
US EPA (ARCS)	PEC	-	-	0.5477	4.2	0.3937	5.2	0.0282	0.8343	0.6519	-	0.6874	-	3.225	3.369	4.3538	13.66
US EPA (OSWER)	ER-M	0.5	0.64	1.1	1.6	1.6	2.8	0.26	5.1	0.54	0.67	2.1	1.5	2.6	3.16	9.6	44.792
US EPA (ARCS)	NEC	-	-	1.7	3.5	0.44	4	0.87	7.5	1.8	-	0.29	-	6.1	3.04	51	84.6
Washington (WSDOE)	CSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Ontario (OMOEE)	NEL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NewYork (NYSDEC)	$BSGV_{human}$	-	-	-	-	0.0044	-	0.0098	-	-	-	-	-	-	-	-	-
NewYork (NYSDEC)	$BSGV_{wildlife}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US DOE	EqP_{NAWQC}	1.3	-	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-
US DOE	$EqP_{secondary}$	-	-	0.0087	0.11	0.14	-	-	-	-	-	0.24	-		-	-	-
US DOE	EqP_{Fish}	5.3	-	3	0.027	-	-	-	-	-	-	12	-	-	-	-	-

US DOE	$EqP_{Daphnids}$	470	-	0.0091	0.62	3	-	-	-	-	-	23	59	-	-	-	-
US DOE	$EqP_{Nondaphnid\ invert.}$	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US EPA (OSWER)	SQB	-	-	-	-	-	-	-	-	-	-	0.48	-	-	-	-	-
US EPA (OSWER)	SQC	0.62	-	-	-	-	-	-	2.9	-	-		0.85	-	-	-	

Jurisdiction	Type	Other		
		Chloride	Naphthenic acids	Phenols
Quebec (DSEE)	REL	-	-	ND
Canada (CCME)	ISQC/TEL	-	-	1.4
Quebec (DSEE)	TEL	-	-	1.4
Ontario (OMOEE)	LEL	-	-	-
US EPA (Region IV - FDEP)	TEL	-	-	-
Quebec (DSEE)	OEL	-	-	ND
US EPA (OSWER)	ER-L	-	-	-
US EPA (Region III)	BTAG SSB	-	-	0.42
Minnesota (MPCA)	$SQT_{Level\ 1}$	-	-	-
NewYork (NYSDEC)	Class A	-	-	-
British Columbia (MWLAP)	$SedQC_{SCS}$	-	-	-
US EPA (ARCS)	TEC	-	-	-
Washington (WSDOE)	SCO			
Canada (CCME)	PEL	-	-	ND
Quebec (DSEE)	PEL	-	-	ND
NovaScotia (NSE)	EQS	-	-	-
British Columbia (MWLAP)	$SedQC_{TCS}$	-	-	-
Quebec (DSEE)	FEL	-	-	ND
Ontario (OMOEE)	SEL	-	-	-
Minnesota (MPCA)	$SQT_{Level\ 2}$	-	-	-
NewYork (NYSDEC)	Class C	-	-	-
US EPA (ARCS)	PEC	-	-	-
US EPA (OSWER)	ER-M	-	-	-
US EPA (ARCS)	NEC	-	-	-
Washington (WSDOE)	CSL	-	-	-
Ontario (OMOEE)	NEL	-	-	-
NewYork (NYSDEC)	$BSGV_{human}$	-	-	-
NewYork (NYSDEC)	$BSGV_{wildlife}$	-	-	-
US DOE	EqP_{NAWQC}	-	-	-
US DOE	$EqP_{secondary}$	-	-	-
US DOE	EqP_{Fish}	-	-	-

US DOE	$EqP_{Daphnids}$	-	-	-
US DOE	$EqP_{Nondaphnid\ invert.}$	-	-	-
US EPA (OSWER)	SQB	-	-	-
US EPA (OSWER)	SQC	-	-	-

Notes:

BC Ministry of Water, Land and Air Protection (BC Environment 2003)
- Sed CS_{SCS} - Sediment Quality Criteria for Sensitive Contaminated Sites
- Sed CS_{TCS} - Sediment Quality Criteria for Typical Contaminated Sites

Canadian Council of Ministers of the Enivronment (CCME 1999 and updates)
- ISQC - Interim Sediment Quality Guideline
- TEL - Threshold Effect Level Sediment Quality Criteria for Sensitive
- PEL - Probable Effect Level

Minnesota Pollution Control Agency (MPCA 2007)
- SQT - Sediment Quality Target
- Level 1 - intended to identify contaminant concentrations below which harmful effects on sediment-dwelling organisms are unlikely to be observed
- Level 2 - intended to identify contaminant concentrations above which harmful effects on sediment-dwelling organisms are likely to be observed

New York State Department of Environmental Conservation of Fish, Wildlife and Marine Resources Bureau of Habitat (NYSDEC 2014)
- SQT - Sediment Quality Target
- BSGV - Bioaccumulation Based Sediment Guideline Value
- Class A - little or no potential for risk to aquatic life
- Class C - a high potential for the sediments to be toxic to aquatic life

NovaScotia Environment (NSE 2014)
- EQS - Environmental Quality Standard

Ontario Ministry of Environment and Energy (OMOEE 2008)
- NEL - No Effect Level
- LEL - Lowest Effect Level
- SEL - Severe Effect Level

Quebec (Direction du suivi de l'état de l'environnement (DSEE 2007))
- NEL - No Effect Level
- REL - Rare Effect Level
- OEL - Occasional Effect Level
- FEL - Frequent Effect Level

United States Deperatment of Energy (US DOE) Office of Environmental Management (US DOE 1997)
- EqP - equilibrium partitioning
- NAWQC - national ambient water quality criteria
- Secondary - chronic conservative predictor of risk
- Fish - lowest chronic value protective of fish tissue