

Users are advised to consult the Canadian Environmental Quality Guidelines introductory text, factsheet, and/or protocols for specific information and implementation guidance pertaining to each environmental quality guideline.

		Water Quality Guidelines for the Protection of Aquatic Life					
		Freshwater			Marine		
		Concentration (µg/L)	Concentration (µg/L)	Date	Concentration (µg/L)	Concentration (µg/L)	Date
Chemical name	Chemical groups	Short Term	Long Term		Short Term	Long Term	
1,1,1-Trichloroethane CASRN 71556	Organic Halogenated aliphatic compounds Chlorinated ethanes	No data	Insufficient data	1991	No data	Insufficient data	1991
1,1,2,2- Tetrachloroethene PCE (Tetrachloroethylene) CASRN 127184	Organic Halogenated aliphatic compounds Chlorinated ethenes	No data	110	1993	No data	Insufficient data	1993
1,1,2,2-Tetrachlorethane CASRN 79345	Organic Halogenated aliphatic compounds Chlorinated ethanes	No data	Insufficient data	1991	No data	Insufficient data	1991
1,1,2-Trichloroethene TCE (Trichloroethylene) CASRN 79-01-6	Organic Halogenated aliphatic compounds Chlorinated ethenes	No data	21	1991	No data	Insufficient data	1991
1,2,3,4-Tetrachlorobenzene CASRN 634662	Organic Monocyclic aromatic compounds Chlorinated benzenes	No data	1.8	1997	No data	Insufficient data	1997
1,2,3,5-Tetrachlorobenzene	Organic Monocyclic aromatic compounds Chlorinated benzenes	No data	Insufficient data	1997	No data	Insufficient data	1997
1,2,3-Trichlorobenzene CASRN 87616	Organic Monocyclic aromatic compounds Chlorinated benzenes	No data	8	1997	No data	Insufficient data	1997

1,2,4,5-Tetrachlorobenzene	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	Insufficient data	1997	<i>No data</i>	Insufficient data	1997
1,2,4-Trichlorobenzene CASRN 120801	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	24	1997	<i>No data</i>	5.4	1997
1,2-Dichlorobenzene CASRN 95501	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	0.7	1997	<i>No data</i>	42	1997
1,2-Dichloroethane CASRN 1070602	Organic Halogenated aliphatic compounds Chlorinated ethanes	<i>No data</i>	100	1991	<i>No data</i>	Insufficient data	1991
1,3,5-Trichlorobenzene	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	Insufficient data	1997	<i>No data</i>	Insufficient data	1997
1,3-Dichlorobenzene CASRN 541731	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	150	1997	<i>No data</i>	Insufficient data	1997
1,4-Dichlorobenzene CASRN 106467	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	26	1997	<i>No data</i>	Insufficient data	1997
1,4-Dioxane		NRG	NRG	2008	NRG	NRG	2008
3-Iodo-2-propynyl butyl carbamate IPBC CASRN 55406-53-6	Organic Pesticides Carbamate pesticides	<i>No data</i>	1.9	1999	<i>No data</i>	<i>No data</i>	<i>No data</i>

Acenaphthene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	No data	5.8	1999	No data	Insufficient data	1999
Acenaphthylene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	No data	No data	1999	No data	No data	1999
Acridine PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	No data	4.4	1999	No data	Insufficient data	1999
Aldicarb CASRN 116063	Organic Pesticides Carbamate pesticides	No data	1	1993	No data	0.15	1993
Aldrin	Organic Pesticides Organochlorine compounds	No data	0.004	1987	No data	No data	No data
Aluminium	Inorganic Metals	No data	Variable	1987	No data	No data	No data
Ammonia (total)	Inorganic Inorganic nitrogen compounds	No data	Table	2001	No data	No data	No data
Ammonia (un-ionized) CASRN 7664417	Inorganic Inorganic nitrogen compounds	No data	19	2001	No data	No data	No data
Aniline CASRN 62533	Organic	No data	2.2	1993	No data	Insufficient data	1993
Anthracene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	No data	0.012	1999	No data	Insufficient data	1999
Arsenic CASRN none	Inorganic Metals	No data	5	1997	No data	12.5	1997

Atrazine CASRN 1912249	Organic Pesticides Triazine compounds	<i>No data</i>	1.8	1989	<i>No data</i>	<i>No data</i>	<i>No data</i>
Benz(a)anthracene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	0.018	1999	<i>No data</i>	Insufficient data	1999
Benzene CASRN 71432	Organic Monocyclic aromatic compounds	<i>No data</i>	370	1999	<i>No data</i>	110	1999
Benzo(a)pyrene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	0.015	1999	<i>No data</i>	Insufficient data	1999
Boron	Inorganic Metals	29,000µg/L or 29mg/L	1,500µg/L or 1.5mg/L	2009	NRG	NRG	2009
Bromacil CASRN 314409	Organic Pesticides	<i>No data</i>	5	1997	<i>No data</i>	Insufficient data	1997
Bromoxynil	Organic Pesticides Benzonitrile compounds	<i>No data</i>	5	1993	<i>No data</i>	Insufficient data	1993
Cadmium CASRN 7440439	Inorganic Metals	1.0	0.09	2014	NRG	0.12	2014
Captan CASRN 133062	Organic Pesticides	<i>No data</i>	1.3	1991	<i>No data</i>	<i>No data</i>	<i>No data</i>
Carbamazepine 5H-Dibenzo[b,f]azepine-5- carboxamide; CBZ		NRG	10	2018	NRG	NRG	2018
Carbaryl CASRN 63252	Organic Pesticides Carbamate pesticides	3.3	0.2	2009	5.7	0.29	2009
Carbofuran CASRN 1564662	Organic Pesticides Carbamate pesticides	<i>No data</i>	1.8	1989	<i>No data</i>	<i>No data</i>	<i>No data</i>

Chlordane	Organic Pesticides Organochlorine compounds	No data	0.006	1987	No data	No data	No data
Chloride	Inorganic	640,000 µg/L or 640 mg/L	120,000 µg/L or 120 mg/L	2011	NRG	NRG	2011
Chlorothalonil CASRN 1897456	Organic Pesticides	No data	0.18	1994	No data	0.36	1994
Chlorpyrifos CASRN 2921882	Organic Pesticides Organophosphorus compounds	0.02	0.002	2008	NRG	0.002	2008
Chromium, hexavalent (Cr(VI)) CASRN 7440473	Inorganic Metals	No data	1	1997	No data	1.5	1997
Chromium, trivalent (Cr(III)) CASRN 7440473	Inorganic Metals	No data	8.9	1997	No data	56	1997
Chrysene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	No data	Insufficient data	1999	No data	Insufficient data	1999
Colour CASRN N/A	Physical	No data	Narrative	1999	No data	Narrative	1999
Copper	Inorganic Metals	No data	Equation	1987	No data	No data	No data
Cyanazine CASRN 2175462	Organic Pesticides Triazine compounds	No data	2	1990	No data	No data	No data
Cyanide	Inorganic	No data	5 (as free CN)	1987	No data	No data	No data
Debris CASRN N/A	Physical	No data	No data	No data	No data	Narrative	1996
Deltamethrin CASRN 52918635	Organic Pesticides	No data	0.0004	1997	No data	Insufficient data	1997

Deposited bedload sediment	Physical Turbidity, clarity and suspended solids Total particulate matter	<i>No data</i>	Insufficient data	1999	<i>No data</i>	Insufficient data	1999
Di(2-ethylhexyl) phthalate CASRN 117817	Organic Phthalate esters	<i>No data</i>	16	1993	<i>No data</i>	Insufficient data	1993
Di-n-butyl phthalate CASRN 84742	Organic Phthalate esters	<i>No data</i>	19	1993	<i>No data</i>	Insufficient data	1993
Di-n-octyl phthalate CASRN 117840	Organic Phthalate esters	<i>No data</i>	Insufficient data	1993	<i>No data</i>	Insufficient data	1993
Dibromochloromethane	Organic Halogenated aliphatic compounds Halogenated methanes	<i>No data</i>	Insufficient data	1992	<i>No data</i>	Insufficient data	1992
Dicamba CASRN 1918009	Organic Pesticides Aromatic Carboxylic Acid	<i>No data</i>	10	1993	<i>No data</i>	<i>No data</i>	<i>No data</i>
Dichloro diphenyl trichloroethane; 2,2-Bis(p-chlorophenyl)-1,1,1- trichloroethane DDT (total)	Organic Pesticides Organochlorine compounds	<i>No data</i>	0.004	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Dichlorobromomethane	Organic Halogenated aliphatic compounds Halogenated methanes	<i>No data</i>	Insufficient data	1992	<i>No data</i>	Insufficient data	1992
Dichloromethane Methylene chloride CASRN 75092	Organic Halogenated aliphatic compounds Halogenated methanes	<i>No data</i>	98.1	1992	<i>No data</i>	Insufficient data	1992
Dichlorophenols	Organic Monocyclic aromatic compounds Chlorinated phenols	<i>No data</i>	0.2	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Diclofop-methyl CASRN 51338273	Organic Pesticides	<i>No data</i>	6.1	1993	<i>No data</i>	<i>No data</i>	<i>No data</i>

Didecyl dimethyl ammonium chloride DDAC CASRN 7173515	Organic Pesticides	<i>No data</i>	1.5	1999	<i>No data</i>	Insufficient data	1999
Diethylene glycol CASRN 111466	Organic Glycols	<i>No data</i>	Insufficient data	1997	<i>No data</i>	Insufficient data	1997
Diisopropanolamine DIPA CASRN 110974	Organic	<i>No data</i>	1600	2005	<i>No data</i>	Insufficient data	2005
Dimethoate CASRN 60515	Organic Pesticides Organophosphorus compounds	<i>No data</i>	6.2	1993	<i>No data</i>	Insufficient data	1993
Dinoseb CASRN 88857	Organic Pesticides	<i>No data</i>	0.05	1992	<i>No data</i>	<i>No data</i>	<i>No data</i>
Dissolved gas supersaturation CASRN N/A	Physical	<i>No data</i>	Narrative	1999	<i>No data</i>	Narrative	1999
Dissolved oxygen DO CASRN N/A	Inorganic	<i>No data</i>	Variable	1999	<i>No data</i>	>8000 & Narrative	1996
Endosulfan	Organic Pesticides Organochlorine compounds	0.06	0.003	2010	0.09	0.002	2010
Endrin	Organic Pesticides Organochlorine compounds	<i>No data</i>	0.0023	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Ethylbenzene CASRN 100414	Organic Monocyclic aromatic compounds	<i>No data</i>	90	1996	<i>No data</i>	25	1996
Ethylene glycol CASRN 107211	Organic Glycols	<i>No data</i>	192 000	1997	<i>No data</i>	Insufficient data	1997

Fluoranthene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	0.04	1999	<i>No data</i>	Insufficient data	1999
Fluorene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	3	1999	<i>No data</i>	Insufficient data	1999
Fluoride	Inorganic	<i>No data</i>	120	2002	<i>No data</i>	NRG	2002
Fluoride CASRN 7782414	Inorganic	<i>No data</i>	120	2002	<i>No data</i>	<i>No data</i>	2002
Glyphosate CASRN 1071836	Organic Pesticides Organophosphorus compounds	27,000	800	2012	NRG	NRG	2012
Heptachlor Heptachlor epoxide	Organic Pesticides Organochlorine compounds	<i>No data</i>	0.04	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Hexachlorobenzene	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	Insufficient data	1997	<i>No data</i>	Insufficient data	1997
Hexachlorobutadiene HCBD CASRN 87683	Organic Halogenated aliphatic compounds	<i>No data</i>	1.3	1999	<i>No data</i>	<i>No data</i>	<i>No data</i>
Hexachlorocyclohexane Lindane	Organic Pesticides Organochlorine compounds	<i>No data</i>	0.01	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Imidacloprid CASRN 13826413		<i>No data</i>	0.23	2007	<i>No data</i>	0.65	2007
Iron	Inorganic Metals	<i>No data</i>	300	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Lead	Inorganic Metals	<i>No data</i>	Equation	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>

Linuron CASRN 41205214	Organic Pesticides	<i>No data</i>	7	1995	<i>No data</i>	<i>No data</i>	1995
Mercury CASRN 7439976	Inorganic Metals	<i>No data</i>	0.026	2003	<i>No data</i>	0.016	2003
Methoprene CASRN 40596698		<i>No data</i>	0.09 (Target Organism Management value: 0.53)	2007	<i>No data</i>	Insufficient data	2007
Methyl tertiary-butyl ether MTBE CASRN 1634044	Organic Non-halogenated aliphatic compounds Aliphatic ether	<i>No data</i>	10 000	2003	<i>No data</i>	5 000	2003
Methylchlorophenoxyacetic acid (4-Chloro-2-methyl phenoxy acetic acid; 2-Methyl-4-chloro phenoxy acetic acid) MCPA CASRN 94746	Organic Pesticides	<i>No data</i>	2.6	1995	<i>No data</i>	4.2	1995
Methylmercury	Organic	<i>No data</i>	0.004	2003	<i>No data</i>	NRG	2003
Metolachlor CASRN 51218452	Organic Pesticides Organochlorine compounds	<i>No data</i>	7.8	1991	<i>No data</i>	<i>No data</i>	<i>No data</i>
Metribuzin CASRN 21087649	Organic Pesticides Triazine compounds	<i>No data</i>	1	1990	<i>No data</i>	<i>No data</i>	<i>No data</i>
Molybdenum	Inorganic Metals	<i>No data</i>	73	1999	<i>No data</i>	<i>No data</i>	<i>No data</i>
Monobromomethane Methyl bromide	Organic Halogenated aliphatic compounds Halogenated methanes	<i>No data</i>	Insufficient data	1992	<i>No data</i>	Insufficient data	1992
Monochlorobenzene CASRN 108907	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	1.3	1997	<i>No data</i>	25	1997

Monochloromethane Methyl chloride	Organic Halogenated aliphatic compounds Halogenated methanes	<i>No data</i>	Insufficient data	1992	<i>No data</i>	Insufficient data	1992
Monochlorophenols	Organic Monocyclic aromatic compounds Chlorinated phenols	<i>No data</i>	7	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Naphthalene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	1.1	1999	<i>No data</i>	1.4	1999
Nickel	Inorganic Metals	<i>No data</i>	Equation	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Nitrate CASRN 14797-55-8	Inorganic Inorganic nitrogen compounds	550,000 µg/L or 550 mg/L	13,000 µg/L or 13 mg/L	2012	1,500,000 µg/L or 1500 mg/L	200,000 µg/L or 200 mg/L	2012
Nitrite	Inorganic Inorganic nitrogen compounds	<i>No data</i>	60 NO ₂ -N	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Nonylphenol and its ethoxylates CASRN 84852153	Organic Nonylphenol and its ethoxylates	<i>No data</i>	1	2002	<i>No data</i>	0.7	2002
Nutrients		<i>No data</i>	Guidance Framework	2004	<i>No data</i>	Guidance framework	2007
Pentachlorobenzene CASRN 608935	Organic Monocyclic aromatic compounds Chlorinated benzenes	<i>No data</i>	6	1997	<i>No data</i>	Insufficient data	1997
Pentachlorophenol PCP	Organic Monocyclic aromatic compounds Chlorinated phenols	<i>No data</i>	0.5	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Permethrin CASRN 52645531	Organic Pesticides Organochlorine compounds	<i>No data</i>	0.004	2006	<i>No data</i>	0.001	2006

Phenanthrene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	0.4	1999	<i>No data</i>	Insufficient data	1999
Phenols (mono- & dihydric) CASRN 108952	Organic Aromatic hydroxy compounds	<i>No data</i>	4	1999	<i>No data</i>	<i>No data</i>	<i>No data</i>
Phenoxy herbicides 2,4 D; 2,4-Dichlorophenoxyacetic acid	Organic Pesticides	<i>No data</i>	4	1987	<i>No data</i>	<i>No data</i>	<i>No data</i>
Phosphorus	Inorganic	<i>No data</i>	Guidance Framework	2004	<i>No data</i>	Guidance Framework	2007
Picloram CASRN 1918021	Organic Pesticides	<i>No data</i>	29	1990	<i>No data</i>	<i>No data</i>	<i>No data</i>
Polychlorinated biphenyls PCBs	Organic Polyaromatic compounds Polychlorinated biphenyls	<i>No data</i>	0.001	1987	<i>No data</i>	0.01	1991
Propylene glycol CASRN 57556	Organic Glycols	<i>No data</i>	500 000	1997	<i>No data</i>	Insufficient data	1997
Pyrene PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	0.025	1999	<i>No data</i>	Insufficient data	1999
pH	Inorganic Acidity, alkalinity and pH	<i>No data</i>	6.5 to 9.0	1987	<i>No data</i>	7.0 to 8.7 & Narrative	1996
Quinoline PAHs	Organic Polyaromatic compounds Polycyclic aromatic hydrocarbons	<i>No data</i>	3.4	1999	<i>No data</i>	Insufficient data	1999
Reactive Chlorine Species total residual chlorine, combined residual chlorine, total available chlorine, hypochlorous acid, chloramine, combined available chlorine, free residual chlorine, free available chlorine, chlorine- produced oxidants	Inorganic Reactive chlorine compounds	<i>No data</i>	0.5	1999	<i>No data</i>	0.5	1999

Salinity	Physical	No data	No data	No data	No data	Narrative	1996
Selenium	Inorganic Metals	No data	1	1987	No data	No data	No data
Silver	Inorganic Metals	NRG	0.25	2015	7.5	NRG	2015
Simazine CASRN 122349	Organic Pesticides Triazine compounds	No data	10	1991	No data	No data	No data
Sodium adsorption ratio SAR		No data	No data	No data	No data	No data	No data
		Concentration (µg/L)	Concentration (µg/L)	Date	Concentration (µg/L)	Concentration (µg/L)	Date
Chemical name	Chemical groups	Short Term	Long Term		Short Term	Long Term	
Streambed substrate	Physical Turbidity, clarity and suspended solids Total particulate matter	No data	Narrative	1999	No data	Narrative	1999
Styrene CASRN 100425	Organic Monocyclic aromatic compounds	No data	72	1999	No data	No data	No data
Sulfolane Bondelane CASRN 126330	Organic Organic sulphur compound	No data	50 000	2005	No data	Insufficient data	2005
Suspended sediments TSS	Physical Turbidity, clarity and suspended solids Total particulate matter	No data	Narrative	1999	No data	Narrative	1999
Tebuthiuron CASRN 34014181	Organic Pesticides	No data	1.6	1995	No data	Insufficient data	1995
Temperature	Physical Temperature	No data	Narrative	1987	No data	Narrative	1996
Tetrachloromethane Carbon tetrachloride CASRN 56235	Organic Halogenated aliphatic compounds Halogenated methanes	No data	13.3	1992	No data	Insufficient data	1992

Tetrachlorophenols	Organic Monocyclic aromatic compounds Chlorinated phenols	No data	1	1987	No data	No data	No data
Thallium	Inorganic Metals	No data	0.8	1999	No data	No data	No data
Toluene CASRN 108883	Organic Monocyclic aromatic compounds	No data	2	1996	No data	215	1996
Toxaphene	Organic Pesticides Organochlorine compounds	No data	0.008	1987	No data	No data	No data
Triallate CASRN 2303175	Organic Pesticides Carbamate pesticides	No data	0.24	1992	No data	No data	No data
Tribromomethane Bromoform	Organic Halogenated aliphatic compounds Halogenated methanes	No data	Insufficient data	1992	No data	Insufficient data	1992
Tributyltin	Organic Organotin compounds	No data	0.008	1992	No data	0.001	1992
Trichlorfon CASRN 52-68-6		1.1	0.009	2012	NRG	NRG	2012
Trichloromethane Chloroform CASRN 67663	Organic Halogenated aliphatic compounds Halogenated methanes	No data	1.8	1992	No data	Insufficient data	1992
Trichlorophenols	Organic Monocyclic aromatic compounds Chlorinated phenols	No data	18	1987	No data	No data	No data
Tricyclohexyltin	Organic Organotin compounds	No data	Insufficient data	1992	No data	Insufficient data	1992
Trifluralin CASRN 1582098	Organic Pesticides Dinitroaniline pesticides	No data	0.2	1993	No data	No data	No data

Triphenyltin	Organic Organotin compounds	No data	0.022	1992	No data	No data	1992
Turbidity	Physical Turbidity, clarity and suspended solids Total particulate matter	No data	Narrative	1999	No data	Narrative	1999
Uranium CASRN 7440-61-1	Inorganic Metals	33	15	2011	NRG	NRG	2011
Zinc	Inorganic Metals	37	7.0	2018	Not assessed	Not assessed	2018

Chemical name	Chemical groups
Sodium adsorption ratio SAR	