

Atlantic RBCA - Ecological Tier I Environmental Quality Standards (EQS) for Surface Water (µg/L)

Media		Surface Water	
Pathway		Fresh Water	Marine Water
Parameter	Units	Value	Value
Inorganic Parameters			
Aluminum	µg/L	5	-
Antimony	µg/L	9	250
Arsenic	µg/L	5	12.5
Barium	µg/L	1000	500
Beryllium	µg/L	0.15	100
Boron	µg/L	1500	1200
Cadmium	µg/L	0.09	0.12
Chromium (hexavalent)	µg/L	1	1.5
Chromium (total)	µg/L	8.9	56
Cobalt	µg/L	1	4
Copper	µg/L	2	2
Cyanide	µg/L	5	1
Iron	µg/L	300	-
Lead	µg/L	1	2
Manganese	µg/L	430	-
Mercury (total)	µg/L	0.026	0.016
Methylmercury	µg/L	0.004	0.004
Molybdenum	µg/L	73	1000
Nickel	µg/L	25	8.3
Selenium	µg/L	1	2
Silver	µg/L	0.25	1.5
Strontium	µg/L	21000	-
Thallium	µg/L	0.8	0.3
Tin	µg/L	-	-
Uranium	µg/L	15	8.5
Vanadium	µg/L	120	5
Zinc	µg/L	7	10
General Chemistry Parameters			
Ammonia	µg/L	pH and temperature dependent; consult CCME fact sheet.	pH, salinity and temperature dependent; consult BCMOE schedule.
Chloride	µg/L	120,000	No more than a 10% change in ambient sea water salinity (as NaCl).
Colour	TCU	True Colour: Mean absorbance of filtered samples at 456 nm shall not be significantly higher than seasonally adjusted expected value for system under consideration. Apparent Colour: Mean percent transmission of white light per metre shall not be significantly less than seasonally adjusted value for system under consideration (CCME, 2001).	
Fluoride	µg/L	120	1500
Hydrogen Sulphide	µg/L	2	-
Nitrate (as N)	µg/L	13,000	200,000
Nitrate + Nitrite (as N)	µg/L	-	-
Nitrite (as N)	µg/L	60	-
pH	Units	6.5 to 9	7.0 to 8.7
Sodium	µg/L	-	-
Sulphate	µg/L	128,000	-

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Total Dissolved Solids (TDS)	µg/L	-	-
Petroleum Hydrocarbons (PHC) Parameters			
Benzene	µg/L	2100	2100
Toluene	µg/L	770	770
Ethylbenzene	µg/L	320	320
Xylene	µg/L	330	330
Modified TPH (Gas)	µg/L	1500	1500
Modified TPH (Fuel)	µg/L	100	100
Modified TPH (Lube)	µg/L	100	100
MTBE	µg/L	10,000	5000
Polycyclic Aromatic Hydrocarbons (PAH) Parameters			
Non-Carcinogenic PAH Compounds			
Naphthalene	µg/L	1.1	1.4
1 - Methyl-naphthalene	µg/L	2	1
2 - Methyl-naphthalene	µg/L	2	1
Acenaphthene	µg/L	5.8	6
Acenaphthylene	µg/L	-	-
Anthracene	µg/L	0.012	0.1
Fluoranthene	µg/L	0.04	0.2
Fluorene	µg/L	3	12
Phenanthrene	µg/L	0.4	0.3
Pyrene	µg/L	0.025	0.02
Carcinogenic PAH Compounds			
BaP Total Potency Equivalents	µg/L	-	-
Benz[a]anthracene	µg/L	0.018	-
Benzo[a]pyrene	µg/L	0.015	0.01
Benzo[b,j,k]fluoranthene isomers	µg/L	-	-
Benzo[g,h,i]perylene	µg/L	-	-
Chrysene	µg/L	0.1	0.1
Dibenz[a,h]anthracene	µg/L	-	-
Indeno[1,2,3-c,d]pyrene	µg/L	-	-
Volatile Organic Compound (VOC) Parameters			
Bromodichloromethane	µg/L	200	6400
Bromoform	µg/L	60	6400
Bromomethane	µg/L	0.9	6400
Carbon Tetrachloride (Tetrachloromethane)	µg/L	13.3	13
Chlorobenzene	µg/L	1.3	25
Chloroethane	µg/L	1100	-
Chloroform	µg/L	1.8	2
Chloromethane	µg/L	700	6400
Dibromochloromethane	µg/L	40	6400
1,2-Dichlorobenzene	µg/L	0.7	42
1,3-Dichlorobenzene	µg/L	150	150
1,4-Dichlorobenzene	µg/L	26	26
1,1-Dichloroethane	µg/L	200	-
1,2-Dichloroethane	µg/L	100	100
1,1-Dichloroethylene	µg/L	40	-
cis-1,2-Dichloroethylene	µg/L	200	-
trans-1,2-Dichloroethylene	µg/L	200	-
1,2-Dichloropropane	µg/L	0.7	3040
1,3-Dichloropropane	µg/L	7	-
Ethylene Dibromide	µg/L	5	-
Methylene Chloride (Dichloromethane)	µg/L	98.1	98
Styrene	µg/L	72	-
1,1,1,2-Tetrachloroethane	µg/L	20	-

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1,1,1,2-Tetrachloroethane	µg/L	70	-
Tetrachloroethylene	µg/L	110	110
1,1,1-Trichloroethane	µg/L	10	-
1,1,2-Trichloroethane	µg/L	800	-
Trichloroethylene	µg/L	21	20
Vinyl Chloride	µg/L	600	-
Pesticides			
Aldicarb	µg/L	1	0.15
Aldrin	µg/L	See Dieldrin; ISG applies to sum of aldrin + dieldrin	-
Atrazine	µg/L	1.8	-
Azinphos-methyl	µg/L	0.01	0.01
Bendiocarb	µg/L	-	-
Bromoxynil	µg/L	5	-
Carbaryl	µg/L	0.2	0.29
Carbofuran	µg/L	1.8	-
Chlorothalonil	µg/L	0.18	0.36
Chlorpyrifos	µg/L	0.002	0.002
Cyanazine	µg/L	2	-
2,4-D	µg/L	4	4
DDT*	µg/L	0.001	0.001
Diazinon	µg/L	0.003	0.82
Dicamba	µg/L	10	-
Dichlorop-methyl	µg/L	6.1	-
Dieldrin*	µg/L	0.001	0.0019
Dimethoate	µg/L	6.2	-
Dinoseb	µg/L	0.05	-
Diquat	µg/L	0.5	-
Diuron	µg/L	1.6	-
Endosulfan	µg/L	0.003	0.002
Endrin*	µg/L	0.002	0.0023
Glyphosate	µg/L	800	-
Heptachlor*	µg/L	0.001	0.0036
Lindane	µg/L	0.01	-
Linuron	µg/L	7	-
Malathion	µg/L	0.1	0.1
MCPA	µg/L	2.6	4.2
Methoxychlor	µg/L	0.03	-
Metolachlor	µg/L	7.8	-
Metribuzin	µg/L	1	-
Paraquat	µg/L	16	-
Parathion	µg/L	0.008	-
Phorate	µg/L	-	-
Picloram	µg/L	29	-
Simazine	µg/L	10	-
Tebuthiuron	µg/L	1.6	-
Terbufos	µg/L	-	-
Toxaphene*	µg/L	0.008	0.0002
Triallate	µg/L	0.24	-
Trifluralin	µg/L	0.2	-

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PFAS Substances			
Perfluorooctane sulfonate (PFOS)	µg/L	6.8	-
Perfluorooctanoic acid (PFOA)	µg/L	-	-
Perfluorobutanoate (PFBA)	µg/L	-	-
Perfluorobutanesulfonate (PFBS)	µg/L	-	-
Perfluorohexanesulfonate (PFHxS)	µg/L	-	-
Perfluoropentanoate (PFPeA)	µg/L	-	-
Perfluorohexanoate (PFHxA)	µg/L	-	-
Perfluoroheptanoate (PFHpA)	µg/L	-	-
Perfluorononanoate (PFNA)	µg/L	-	-
Other Parameters			
Polychlorinated Biphenyls (Total PCB)	µg/L	0.001	-
Dioxins and Furans (TEQ)	µg/L	-	-
Pentachlorophenol (PCP)	µg/L	0.5	7.9
Organotins - Tributyltin	µg/L	0.008	0.001
Ethylene Glycol	µg/L	192,000	192,000
Propylene Glycol	µg/L	500,000	500,000
Phenol	µg/L	4	200

Notes:

All values in µg/L unless otherwise noted.

"-" indicates no guideline available.

* Indicates the benchmark value is below currently achievable analytical RDLs. For sites with potential surface water or groundwater contamination in relation to this substance, additional aquatic assessment and/or consultation with provincial regulators should occur to confirm this substance is not likely to be present at levels that could adversely affect aquatic biota.