

Atlantic RBCA - Human Health-Based Tier I Environmental Quality Standards (EQS) for Groundwater - All Land Uses; Potable Groundwater Condition (µg/L)

| Land Use | Agricultural | | Residential / Parkland | | Commercial | | Industrial | |
|---|--------------|--------|------------------------|--------|------------|--------|------------|--------|
| Parameter | Fine | Coarse | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| <i>Inorganic Parameters</i> | | | | | | | | |
| Aluminum | NG | NG | NG | NG | NG | NG | NG | NG |
| Antimony | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Arsenic | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Barium | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Beryllium | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Boron | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 |
| Cadmium | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Chromium (hexavalent) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Chromium (total) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Cobalt | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 |
| Copper | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| Cyanide | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| Iron | NG | NG | NG | NG | NG | NG | NG | NG |
| Lead | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Manganese | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Mercury (total) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Molybdenum | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Nickel | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Selenium | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Silver | - | - | - | - | - | - | - | - |
| Strontium | 2400 | 2400 | NGR | NGR | 2400 | 2400 | 2400 | 2400 |
| Thallium | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Tin | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 |
| Uranium | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Vanadium | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 |
| Zinc | NG | NG | NG | NG | NG | NG | NG | NG |
| <i>General Chemistry Parameters</i> | | | | | | | | |
| Chloride | NG | NG | NG | NG | NG | NG | NG | NG |
| Sodium | NG | NG | NG | NG | NG | NG | NG | NG |
| <i>Petroleum Hydrocarbons (PHC) Parameters</i> | | | | | | | | |
| Benzene | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Toluene | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Ethylbenzene | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Xylene | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Modified TPH (Gas) | 4400 | 4400 | 4400 | 4400 | 4400 | 4400 | 4400 | 4400 |
| Modified TPH (Fuel) | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 |
| Modified TPH (Lube) | 7800 | 7800 | 7800 | 7800 | 7800 | 7800 | 7800 | 7800 |
| MTBE | NG | NG | NG | NG | NG | NG | NG | NG |
| <i>Polycyclic Aromatic Hydrocarbons (PAH) Parameters</i> | | | | | | | | |
| <i>Non-Carcinogenic PAH Compounds</i> | | | | | | | | |
| Naphthalene | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 |
| 1 - Methylanthalene | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |



Atlantic RBCA - Human Health-Based Tier I Environmental Quality Standards (EQS) for Groundwater - All Land Uses; Potable Groundwater Condition (µg/L)

| Land Use | Agricultural | | Residential / Parkland | | Commercial | | Industrial | |
|---|--------------|--------|------------------------|--------|------------|--------|------------|--------|
| | Fine | Coarse | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| 2 - Methylanthralene | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Acenaphthene | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 |
| Acenaphthylene | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Anthracene | NGR | NGR | NGR | NGR | NGR | NGR | NGR | NGR |
| Fluoranthene | NGR | NGR | NGR | NGR | NGR | NGR | NGR | NGR |
| Fluorene | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 |
| Phenanthrene | - | - | - | - | - | - | - | - |
| Pyrene | 710 | 710 | 710 | 710 | 710 | 710 | 710 | 710 |
| Carcinogenic PAH Compounds | | | | | | | | |
| BaP Total Potency Equivalents (BaP TPE) | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Benz[a]anthracene | - | - | - | - | - | - | - | - |
| Benzo[a]pyrene | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Benzo[b,j,k]fluoranthene isomers | - | - | - | - | - | - | - | - |
| Benzo[g,h,i]perylene | - | - | - | - | - | - | - | - |
| Chrysene | - | - | - | - | - | - | - | - |
| Dibenz[a,h]anthracene | - | - | - | - | - | - | - | - |
| Indeno[1,2,3-c,d]pyrene | - | - | - | - | - | - | - | - |
| Volatile Organic Compound (VOC) Parameters | | | | | | | | |
| Bromodichloromethane | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Bromoform | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Bromomethane | 51 | 5.6 | 51 | 5.6 | 51 | 33 | 51 | 33 |
| Carbon Tetrachloride (Tetrachloromethane) | 2 | 0.57 | 2 | 0.57 | 2 | 2 | 2 | 2 |
| Chlorobenzene | 80 | 14 | 80 | 14 | 80 | 80 | 80 | 80 |
| Chloroethane | - | - | - | - | - | - | - | - |
| Chloroform | 80 | 30 | 80 | 30 | 80 | 80 | 80 | 80 |
| Chloromethane | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| Dibromochloromethane | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 190 |
| 1,2-Dichlorobenzene | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1,3-Dichlorobenzene | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| 1,4-Dichlorobenzene | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1,1-Dichloroethane | 3100 | 320 | 3100 | 320 | 3700 | 3700 | 3700 | 3700 |
| 1,2-Dichloroethane | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1,1-Dichloroethylene | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| cis-1,2-Dichloroethylene | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| trans-1,2-Dichloroethylene | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1,2-Dichloropropane | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 |
| 1,3-Dichloropropene | 6.7 | 5.2 | 6.7 | 5.2 | 6.7 | 6.7 | 6.7 | 6.7 |
| Ethylene Dibromide | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 |
| Methylene Chloride (Dichloromethane) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Styrene | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1,1,1,2- Tetrachloroethane | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 1,1,1,2,2-Tetrachloroethane | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| Tetrachloroethylene | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |



Atlantic RBCA - Human Health-Based Tier I Environmental Quality Standards (EQS) for Groundwater - All Land Uses; Potable Groundwater Condition (µg/L)

| Land Use | Agricultural | | Residential / Parkland | | Commercial | | Industrial | |
|-----------------------|--------------|--------|------------------------|--------|------------|--------|------------|--------|
| | Fine | Coarse | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| 1,1,1-Trichloroethane | 6700 | 640 | 6700 | 640 | 10,000 | 10,000 | 10,000 | 10,000 |
| 1,1,2-Trichloroethane | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Trichloroethylene | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Vinyl Chloride | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Pesticides | | | | | | | | |
| Aldicarb | - | - | - | - | - | - | - | - |
| Aldrin | - | - | - | - | - | - | - | - |
| Atrazine | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Azinphos-methyl | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Bendiocarb | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| Bromoxynil | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Carbaryl | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Carbofuran | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Chlorothalonil | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 |
| Chlorpyrifos | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Cyanazine | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 2,4-D | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| DDT | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Diazinon | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Dicamba | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Dichlorop-methyl | - | - | - | - | - | - | - | - |
| Dieldrin | - | - | - | - | - | - | - | - |
| Dimethoate | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Dinoseb | - | - | - | - | - | - | - | - |
| Diquat | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Diuron | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Endosulfan | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Endrin | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Glyphosate | 280 | 280 | 280 | 280 | 280 | 280 | 280 | 280 |
| Heptachlor | 0.052 | 0.052 | 0.052 | 0.052 | 0.052 | 0.052 | 0.052 | 0.052 |
| Lindane | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Linuron | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Malathion | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 190 |
| MCPA | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Methoxychlor | - | - | - | - | - | - | - | - |
| Metolachlor | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Metribuzin | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Paraquat | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Parathion | - | - | - | - | - | - | - | - |
| Phorate | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Picloram | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 190 |
| Simazine | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Tebuthiuron | 660 | 660 | 660 | 660 | 660 | 660 | 660 | 660 |



Atlantic RBCA - Human Health-Based Tier I Environmental Quality Standards (EQS) for Groundwater - All Land Uses; Potable Groundwater Condition (µg/L)

| Land Use | Agricultural | | Residential / Parkland | | Commercial | | Industrial | |
|--------------------------------------|--------------|---------|------------------------|---------|------------|---------|------------|---------|
| | Fine | Coarse | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| Terbufos | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Toxaphene | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| Triallate | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Trifluralin | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| PFAS Substances | | | | | | | | |
| Perfluorooctanoic acid (PFOA) [4] | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Perfluorooctane sulfonate (PFOS) [4] | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Perfluorobutanoate (PFBA) | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Perfluorobutane sulfonate (PFBS) | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Perfluorohexanesulfonate (PFHxS) | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Perfluoropentanoate (PFPeA) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Perfluorohexanoate (PFHxA) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Perfluoroheptanoate (PFHpA) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Perfluorononanoate (PFNA) | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Other Parameters | | | | | | | | |
| Polychlorinated Biphenyl (Total PCB) | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 |
| Dioxins and Furans (TEQ) | 0.00012 | 0.00012 | 0.00012 | 0.00012 | 0.00012 | 0.00012 | 0.00012 | 0.00012 |
| Pentachlorophenol (PCP) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Organotins - Tributyltin | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 |
| Ethylene Glycol | 31,000 | 31,000 | 31,000 | 31,000 | 31,000 | 31,000 | 31,000 | 31,000 |
| Propylene Glycol | - | - | - | - | - | - | - | - |
| Phenol | 570 | 570 | 570 | 570 | 570 | 570 | 570 | 570 |

Notes:

[1] All values in µg/L unless otherwise noted.

[2] "-" indicates no guideline available; "NGR" indicates no guideline required; For Tier I EQS, the Upper Concentration Limit (UCL) of 20,000 ug/L in water is applied to any petroleum hydrocarbon value that is >SOL (solubility) or exceeds 20,000 ug/L, following Atlantic RBCA guidance.

[3] For Tier I EQS, Health Canada AO and OG values are excluded from consideration; as such, "NG" (no guideline) is indicated.

[4] When PFOS and PFOA co-occur in soil or groundwater, it is recommended that both chemicals be considered together when comparing to screening values. Refer to Health Canada's "Summary Table: Health Canada Draft Guidelines, Screening Values and Toxicological Reference Values (TRVs) for Perfluoroalkyl Substances (PFAS). May, 2019." for specific guidance on calculating PFOS/PFOA ratios and hazard indices.