

Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)  
Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG

|                                          | Units       | CDWG         |           | May 10<br>2017 | May 2<br>2018 <sup>M</sup> | May 15<br>2019 | May 14<br>2020 <sup>°</sup> | May 27<br>2021 <sup>°</sup> | May 27<br>2022 <sup>°</sup> | May 18<br>2023 <sup>°</sup> | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|----------------|----------------------------|----------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.093          | 0.06                       | 0.063          | <0.05                       | <0.05                       | <0.05                       | <0.05                       | <0.05          | <0.05          |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 158            | 146                        | 112            | 35                          | 46                          | 35                          | 30                          | 36             | 50             |
| <b>Anions</b>                            |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 12.4           | 8.8                        | 13.7           | 1.6                         | 2.1                         | 1.6                         | 1.4                         | <1             | 2.9            |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 8.8            | 22                         | 17             | 5.8                         | 9.4                         | 5.6                         | 3.7                         | 7.1            | 11             |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050        | <0.0050                    | <0.005         | <0.005                      | <0.005                      | <0.005                      | <0.005                      | <0.005         | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Apparent Colour                          | Colour Unit |              |           | 30             | 5                          | 10             | 5                           | 10                          | <5                          | <5                          | <4             | <2             |
| <b>Nutrients</b>                         |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.1            | <0.020                     | <0.015         | 0.051                       | <0.015                      | <0.015                      | <0.015                      | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Conductivity                             | µS/cm       |              |           | 336            | 373                        | 294            | 89                          | 130                         | 84                          | 78                          | 100            | 140            |
| pH                                       | pH          | 7.0-10.5     | AO        | 8.37           | 8.02                       | 7.93           | 7.35                        | 7.9                         | 7.75                        | 7.31                        | 7.74           | 7.84           |
| TDS                                      | mg/L        | 500          | AO        | 186            | 188                        | 168            | 40                          | 82                          | 76                          | 44                          | 70             | 74             |
| Turbidity                                | NTU         |              |           | 0.61           | 0.28                       | 0.48           | 0.11                        | <0.1                        | <0.1                        | <0.1                        | 0.11           | 0.28           |
| <b>Microbiological Parameters</b>        |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0                           | 0                           | 0                           | 0                           | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0                           | 0                           | 0                           | 0                           | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 128            | 153                        | 102            | 21.1                        | 31.6                        | 20                          | 16.2                        | 23.4           | 43.7           |
| Nitrate                                  | mg/L        | 10           | MAC       | 0.057          | 1.83                       | 0.192          | 0.074                       | 0.377                       | 0.09                        | <0.02                       | <0.02          | 0.757          |
| <b>Elements</b>                          |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001       | <0.000002                  | <0.000002      | <0.0000019                  | <0.0000019                  | <0.0000019                  | <0.0000019                  | 0.0000035      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                |                            |                |                             |                             |                             |                             |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003         | <0.003                     | 0.059          | 0.031                       | 0.015                       | 0.0159                      | 0.0227                      | 0.0137         | 0.0155         |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005        | <0.0005                    | <0.0005        | <0.0005                     | <0.0005                     | <0.0005                     | <0.0005                     | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.00292        | 0.00184                    | 0.00179        | 0.00037                     | 0.00067                     | 0.00041                     | 0.0002                      | 0.00028        | 0.00026        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.0155         | 0.0146                     | 0.012          | 0.0027                      | 0.0044                      | 0.0033                      | 0.0029                      | 0.0036         | 0.0054         |
| Total Beryllium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001                      | <0.001                      | <0.001                      | <0.001                      | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | <0.050         | <0.050                     | <0.05          | <0.05                       | <0.05                       | <0.05                       | <0.05                       | <0.05          | <0.050         |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001       | <0.00001                   | <0.00001       | <0.00001                    | <0.00001                    | <0.00001                    | <0.00001                    | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001         | <0.001                     | <0.001         | <0.001                      | <0.001                      | <0.001                      | <0.001                      | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002        | <0.0002                    | <0.0002        | <0.0002                     | <0.0002                     | <0.0002                     | <0.0002                     | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00733        | 0.0102                     | 0.0115         | 0.00141                     | 0.00209                     | 0.00208                     | 0.00215                     | 0.00287        | 0.00111        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.0092         | 0.0082                     | 0.0134         | <0.005                      | 0.0099                      | <0.005                      | 0.0093                      | 0.0053         | <0.0050        |
| Total Lead                               | mg/L        | 0.01         | MAC       | <0.0002        | 0.00028                    | 0.00029        | <0.0002                     | <0.0002                     | <0.0002                     | 0.00033                     | 0.00028        | 0.00030        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.0775         | 0.011                      | 0.0462         | <0.001                      | 0.0018                      | 0.001                       | 0.0014                      | 0.0019         | 0.0035         |
| Total Molybdenum                         | mg/L        |              |           | 0.0011         | <0.001                     | <0.001         | <0.001                      | <0.001                      | <0.001                      | <0.001                      | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001                      | <0.001                      | <0.001                      | <0.001                      | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001        | 0.00015                    | <0.0001        | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 10.9           | 10.1                       | 7.12           | 2.22                        | 2.53                        | 2.17                        | 1.74                        | 2.28           | 3.23           |
| Total Silver                             | mg/L        |              |           | <0.00002       | <0.00002                   | <0.00002       | <0.00002                    | <0.00002                    | <0.00002                    | <0.00002                    | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.111          | 0.112                      | 0.0947         | 0.0241                      | 0.0345                      | 0.0215                      | 0.0192                      | 0.0293         | 0.0446         |
| Total Thallium                           | mg/L        |              |           | <0.00001       | <0.00001                   | <0.00001       | <0.00001                    | <0.00001                    | <0.00001                    | <0.00001                    | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005                      | <0.005                      | <0.005                      | <0.005                      | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005                      | <0.005                      | <0.005                      | <0.005                      | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | 0.00021        | 0.00019                    | 0.00013        | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001        | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005                      | <0.005                      | <0.005                      | <0.005                      | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | <0.005         | <0.005                     | <0.005         | <0.005                      | <0.005                      | <0.005                      | <0.005                      | <0.005         | 0.0106         |
| Total Zirconium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001                     | <0.0001        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 32.7           | 37.3                       | 27             | 6.96                        | 9.97                        | 6.45                        | 5.52                        | 7.84           | 13.7           |
| Total Magnesium                          | mg/L        |              |           | 11.4           | 14.5                       | 8.33           | 0.915                       | 1.63                        | 0.944                       | 0.591                       | 0.932          | 2.32           |
| Total Potassium                          | mg/L        |              |           | 1.42           | 0.993                      | 0.9            | 0.152                       | 0.224                       | 0.159                       | 0.096                       | 0.137          | 0.193          |
| Total Sodium                             | mg/L        | 200          | AO        | 19.6           | 17.2                       | 16.2           | 10.5                        | 13.2                        | 9.26                        | 9.31                        | 11.4           | 11.6           |
| Total Sulphur                            | mg/L        |              |           | 4.6            | <3.0                       | 4.6            | <3                          | <3.0                        | <3                          | <3.0                        | <3             | <3.0           |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                   | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|----------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I = Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |

# Nanose Bay Peninsula Distribution (Tap) Water Analysis 1961 Harlequin Crescent (~Lot 51 Swallow Crescent) (<sup>o</sup>Bulk Water online; <sup>m</sup>Parksville water online)

CDWG=Canadian Drinking Water Guidelines  
OG= Operational Guidance Value

MAC=Maximum Acceptable Concentration  
AO= Asthetic Objective.

**Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)**  
**Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG**

|                                          | Units       | CDWG         |           | May 10<br>2017~ | May 2<br>2018~ <sup>m</sup> | May 15<br>2019 | May 14<br>2020 | May 27<br>2021 | May 27<br>2022 | May 25<br>2023 | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|-----------------|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.32            | 0.17                        | 0.094          | 0.079          | 0.073          | <0.05          | 0.05           | 0.057          | 0.085          |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 148             | 145                         | 101            | 79             | 87             | 51             | 30             | 89             | 110            |
| <b>Anions</b>                            |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 10.6            | 10.6                        | 8.9            | 6.1            | 5.4            | 3.1            | 1.6            | 6.1            | 10             |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 35              | 37                          | 29             | 23             | 27             | 13             | 4.7            | 29             | 38             |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050         | <0.0050                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.05          | <0.05          | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Apparent Colour                          | Colour Unit |              |           | 10              | 5                           | 10             | 5              | 10             | <5             | <5             | 2.1            | <2             |
| <b>Nutrients</b>                         |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.18            | 0.022                       | <0.015         | 0.024          | <0.015         | <0.015         | <0.015         | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Conductivity                             | µS/cm       |              |           | 416             | 424                         | 312            | 240            | 270            | 270            | 82             | 290            | 370            |
| pH                                       | pH          | 7.0:10.5     | AO        | 8.25            | 8.09                        | 7.89           | 7.87           | 8.08           | 8.1            | 7.3            | 7.9            | 7.92           |
| TDS                                      | mg/L        | 500          | AO        | 230             | 212                         | 166            | 130            | 150            | 170            | 42             | 170            | 210            |
| Turbidity                                | NTU         |              |           | 0.15            | 0.12                        | 0.29           | 0.12           | 0.11           | 0.14           | 0.18           | 0.15           | 0.19           |
| <b>Microbiological Parameters</b>        |             |              |           |                 |                             |                |                |                |                |                |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0            | <1.0                        | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0            | <1.0                        | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 112             | 117                         | 83.7           | 64.9           | 71             | 71.6           | 17.9           | 77.6           | 96.1           |
| Nitrate                                  | mg/L        | 10           | MAC       | <0.020          | <0.020                      | 0.033          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          |
| <b>Elements</b>                          |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001        | <0.000002                   | <0.000002      | <0.0000019     | <0.0000019     | <0.0000019     | <0.0000019     | 0.0000023      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                 |                             |                |                |                |                |                |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003          | <0.003                      | 0.003          | 0.0178         | 0.0079         | 0.007          | 0.0293         | 0.0043         | 0.0036         |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005         | <0.0005                     | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.001           | 0.00124                     | 0.0011         | 0.00056        | 0.00084        | 0.0006         | 0.00017        | 0.00056        | 0.00093        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.018           | 0.0074                      | 0.0063         | 0.0042         | 0.0047         | 0.0047         | 0.0016         | 0.0052         | 0.0088         |
| Total Beryllium                          | mg/L        |              |           | <0.0001         | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001          | <0.001                      | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | 0.106           | 0.07                        | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | 0.061          |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001        | <0.00001                    | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001          | <0.001                      | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002         | <0.0002                     | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00121         | 0.00162                     | 0.00271        | 0.00131        | 0.00307        | 0.0021         | 0.00156        | 0.00389        | 0.00204        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.0319          | 0.0171                      | 0.0201         | 0.0169         | 0.0238         | 0.0323         | 0.0132         | 0.0246         | 0.0283         |
| Total Lead                               | mg/L        | 0.005        | MAC       | <0.0002         | <0.0002                     | <0.0002        | <0.0002        | 0.00055        | 0.00027        | <0.0002        | 0.00026        | 0.00030        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.02            | 0.0085                      | 0.0052         | 0.0036         | 0.0041         | 0.0063         | 0.0011         | 0.0059         | 0.0062         |
| Total Molybdenum                         | mg/L        |              |           | <0.001          | <0.001                      | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001          | <0.001                      | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001         | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 14              | 14.1                        | 9.56           | 8.26           | 8.55           | 8.83           | 2.02           | 8.5            | 11.3           |
| Total Silver                             | mg/L        |              |           | <0.00002        | <0.00002                    | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.171           | 0.127                       | 0.0895         | 0.0723         | 0.075          | 0.0722         | 0.0227         | 0.0778         | 0.0927         |
| Total Thallium                           | mg/L        |              |           | <0.00001        | <0.00001                    | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005          | <0.005                      | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005          | <0.005                      | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001         | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005          | <0.005                      | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | 0.0066          | 0.008                       | 0.0142         | 0.0084         | 0.0175         | 0.0243         | <0.005         | 0.0189         | 0.0108         |
| Total Zirconium                          | mg/L        |              |           | <0.0001         | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 28.6            | 29.3                        | 21.7           | 17.2           | 18.4           | 18.5           | 6.01           | 19.9           | 23.4           |
| Total Magnesium                          | mg/L        |              |           | 9.92            | 10.8                        | 7.18           | 5.35           | 6.12           | 6.18           | 0.692          | 6.76           | 9.16           |
| Total Potassium                          | mg/L        |              |           | 2.58            | 2.57                        | 1.57           | 1.35           | 1.43           | 1.42           | 0.118          | 1.39           | 1.85           |
| Total Sodium                             | mg/L        | 200          | AO        | 38.3            | 38.8                        | 26             | 23.3           | 26             | 27.5           | 9.58           | 28.9           | 36.0           |
| Total Sulphur                            | mg/L        |              |           | 3.5             | 3.3                         | 3.1            | <3             | <3             | <3             | <3             | 3.6            | 3.4            |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                   | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|----------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I = Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |

# Nanose Bay Peninsula Distribution (Tap) Water Analysis

## 1270 Sea Dog Road

(<sup>o</sup>Bulk Water online; <sup>m</sup>Parksville water online)

CDWG=Canadian Drinking Water Guidelines

MAC=Maximum Acceptable Concentration

OG= Operational Guidance Value

AO= Asthetic Objective.

Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)

Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG

|                                          | Units       | CDWG         |           | May 10<br>2017 | May 2<br>2018 <sup>m</sup> | May 23<br>2019 | May 14<br>2020 | May 27<br>2021 | May 27<br>2022 | May 23<br>2023 | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|----------------|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.2            | 0.098                      | 0.026          | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 148            | 129                        | 44.2           | 39             | 34             | 32             | 46             | 35             | 39             |
| <b>Anions</b>                            |             |              |           |                |                            |                |                |                |                |                |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 9.83           | 7.6                        | 3.9            | 2.1            | 1              | 1.4            | 1.4            | <1.0           | 1.8            |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 37             | 31                         | 11             | 8.3            | 7.6            | 5.6            | 4.1            | 7.2            | 9.6            |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050        | <0.0050                    | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                |                            |                |                |                |                |                |                |                |
| Apparent Colour                          | Colour Unit |              |           | 10             | 5                          | 5              | 10             | 10             | <5             | <5             | 2.6            | <2             |
| <b>Nutrients</b>                         |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.1            | <0.020                     | <0.015         | 0.38           | <0.015         | <0.015         | <0.015         | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                |                            |                |                |                |                |                |                |                |
| Conductivity                             | µS/cm       |              |           | 413            | 387                        | 128            | 100            | 93             | 76             | 77             | 100            | 110            |
| pH                                       | pH          | 7.0:10.5     | AO        | 8.27           | 8.12                       | 7.63           | 7.69           | 7.69           | 7.71           | 7.25           | 7.85           | 7.67           |
| TDS                                      | mg/L        | 500          | AO        | 232            | 226                        | 77             | 48             | 70             | 52             | 46             | 66             | 56             |
| Turbidity                                | NTU         |              |           | 0.13           | 0.38                       | 0.34           | <0.1           | <0.1           | 0.1            | <0.1           | <0.1           | <0.1           |
| <b>Microbiological Parameters</b>        |             |              |           |                |                            |                |                |                |                |                |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 117            | 136                        | 41.9           | 25.4           | 21.6           | 17.5           | 16.2           | 23.3           | 28.4           |
| Nitrate                                  | mg/L        | 10           | MAC       | <0.020         | <0.020                     | 0.026          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          |
| <b>Elements</b>                          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001       | <0.000002                  | <0.000002      | <0.0000019     | <0.0000019     | <0.0000019     | <0.0000019     | 0.0000024      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003         | <0.003                     | 0.009          | 0.0551         | 0.0199         | 0.0203         | 0.0257         | 0.016          | 0.0167         |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005        | <0.0005                    | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.00124        | 0.00115                    | 0.00044        | 0.00034        | 0.00015        | 0.00016        | 0.00012        | 0.00013        | 0.00014        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.0089         | 0.0096                     | 0.0073         | 0.0023         | 0.0034         | 0.0027         | 0.0025         | 0.0031         | 0.0048         |
| Total Beryllium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | 0.076          | <0.050                     | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | <0.050         |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001       | <0.00001                   | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002        | <0.0002                    | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00119        | 0.00159                    | 0.00267        | 0.00075        | 0.00112        | 0.00114        | 0.00126        | 0.00105        | 0.00095        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.0475         | 0.0322                     | 0.026          | 0.0086         | 0.0116         | 0.0143         | 0.0098         | 0.0056         | 0.0081         |
| Total Lead                               | mg/L        | 0.01         | MAC       | <0.0002        | <0.0002                    | 0.00029        | <0.0002        | 0.00044        | 0.00163        | 0.00107        | 0.00071        | 0.00051        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.0094         | 0.0086                     | 0.008          | <0.001         | <0.001         | <0.001         | 0.0012         | 0.0013         | 0.0018         |
| Total Molybdenum                         | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 14.1           | 12.3                       | 3.9            | 3.03           | 1.96           | 2.19           | 1.75           | 2.21           | 2.79           |
| Total Silver                             | mg/L        |              |           | <0.00002       | <0.00002                   | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.129          | 0.122                      | 0.0481         | 0.0302         | 0.0262         | 0.0219         | 0.0212         | 0.0286         | 0.0378         |
| Total Thallium                           | mg/L        |              |           | <0.00001       | <0.00001                   | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zirconium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 29.1           | 32.4                       | 11.9           | 7.82           | 7.26           | 5.66           | 5.59           | 7.9            | 9.19           |
| Total Magnesium                          | mg/L        |              |           | 10.7           | 13.3                       | 2.99           | 1.42           | 0.842          | 0.825          | 0.544          | 0.857          | 1.31           |
| Total Potassium                          | mg/L        |              |           | 2.54           | 1.6                        | 0.344          | 0.3            | 0.095          | 0.123          | 0.083          | 0.111          | 0.181          |
| Total Sodium                             | mg/L        | 200          | AO        | 39             | 23.9                       | 6.4            | 11.8           | 10.1           | 8.92           | 9.18           | 11.7           | 11.8           |
| Total Sulphur                            | mg/L        |              |           | 3.6            | <3.0                       | <3             | <3             | <3             | <3             | <3.0           | <3             | <3.0           |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                   | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|----------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I = Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |

|                                          | Units       | CDWG         |           | May 10<br>2017 | May 2<br>2018 <sup>M</sup> | May 15<br>2019 | May 14<br>2020 | May 27<br>2021 | May 27<br>2022 | May 18<br>2023 | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|----------------|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.19           | 0.15                       | 0.048          | <0.05          | <0.05          | <0.05          | 0.15           | <0.05          | 0.058          |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 153            | 147                        | 57.4           | 55             | 60             | 51             | 140            | 66             | 88             |
| <b>Anions</b>                            |             |              |           |                |                            |                |                |                |                |                |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 10.2           | 10.5                       | 5.1            | 3.5            | 3              | 3.1            | 11             | 3.6            | 7.1            |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 39             | 37                         | 13             | 13             | 17             | 13             | 49             | 18             | 28             |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050        | <0.0050                    | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                |                            |                |                |                |                |                |                |                |
| Apparent Colour                          | Colour Unit |              |           | 10             | 10                         | 10             | 10             | 5              | <5             | <5             | 8.8            | 3.2            |
| <b>Nutrients</b>                         |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.094          | <0.020                     | <0.015         | 0.028          | <0.015         | <0.015         | <0.015         | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                |                            |                |                |                |                |                |                |                |
| Conductivity                             | µS/cm       |              |           | 431            | 418                        | 162            | 150            | 180            | 140            | 440            | 200            | 280            |
| pH                                       | pH          | 7.0:10.5     | AO        | 8.3            | 8.11                       | 7.68           | 7.87           | 7.98           | 7.93           | 8.17           | 7.86           | 7.97           |
| TDS                                      | mg/L        | 500          | AO        | 240            | 238                        | 78             | 82             | 110            | 72             | 260            | 120            | 150            |
| Turbidity                                | NTU         |              |           | 0.24           | 0.27                       | 0.23           | 0.39           | 0.12           | 0.13           | 0.25           | 0.13           | 0.18           |
| <b>Microbiological Parameters</b>        |             |              |           |                |                            |                |                |                |                |                |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 117            | 128                        | 55.2           | 39.9           | 44.8           | 34.3           | 120            | 52.2           | 75             |
| Nitrate                                  | mg/L        | 10           | MAC       | <0.020         | 0.151                      | 0.054          | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | <0.02          |
| <b>Elements</b>                          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001       | <0.000002                  | <0.000002      | <0.0000019     | <0.0000019     | <0.0000019     | <0.0000019     | 0.0000021      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003         | <0.003                     | 0.0068         | 0.0336         | 0.0122         | 0.0138         | 0.0037         | 0.008          | 0.0082         |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005        | <0.0005                    | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.00109        | 0.00122                    | 0.00059        | 0.00041        | 0.00047        | 0.00036        | 0.00097        | 0.00035        | 0.00058        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.0082         | 0.0068                     | 0.005          | 0.0028         | 0.0034         | 0.0027         | 0.0059         | 0.0044         | 0.0059         |
| Total Beryllium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001         | <0.001                     | <0.0010        | <0.0010        | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | 0.074          | 0.058                      | <0.05          | <0.05          | <0.05          | <0.05          | 0.06           | <0.05          | <0.050         |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001       | <0.00001                   | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002        | <0.0002                    | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00124        | 0.00136                    | 0.00267        | 0.00095        | 0.00167        | 0.0023         | 0.00413        | 0.00244        | 0.00182        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.0672         | 0.0692                     | 0.023          | 0.0369         | 0.0269         | 0.0307         | 0.09           | 0.0331         | 0.0415         |
| Total Lead                               | mg/L        | 0.01         | MAC       | <0.0002        | <0.0002                    | <0.0002        | <0.0002        | <0.0002        | <0.0002        | 0.00038        | 0.00031        | 0.00050        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.0098         | 0.014                      | 0.0066         | 0.0029         | 0.0029         | 0.0043         | 0.0274         | 0.0075         | 0.0084         |
| Total Molybdenum                         | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 14.6           | 13.4                       | 5.05           | 4.93           | 4.96           | 4.55           | 15.6           | 5.46           | 7.96           |
| Total Silver                             | mg/L        |              |           | <0.00002       | <0.00002                   | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.131          | 0.127                      | 0.0565         | 0.0446         | 0.0495         | 0.0348         | 0.0117         | 0.0554         | 0.0766         |
| Total Thallium                           | mg/L        |              |           | <0.00001       | <0.00001                   | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00001       | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | 0.0079         | 0.0088                     | 0.0103         | <0.005         | 0.0061         | <0.005         | <0.005         | 0.0068         | 0.0093         |
| Total Zirconium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 30.5           | 33.2                       | 16.4           | 12.1           | 13.4           | 10.1           | 30.3           | 15.4           | 20.4           |
| Total Magnesium                          | mg/L        |              |           | 9.87           | 10.9                       | 3.5            | 2.35           | 2.77           | 2.21           | 10.7           | 3.34           | 5.86           |
| Total Potassium                          | mg/L        |              |           | 2.7            | 2.55                       | 0.665          | 0.729          | 0.737          | 0.65           | 2.66           | 0.835          | 1.16           |
| Total Sodium                             | mg/L        | 200          | AO        | 41.2           | 36.6                       | 9.68           | 15.6           | 17.1           | 14.5           | 42.1           | 20.4           | 27.2           |
| Total Sulphur                            | mg/L        |              |           | 3.5            | 3.5                        | <3             | <3             | <3             | <3             | 3.4            | <3             | <3.0           |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                   | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|----------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I = Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |

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|                                          | Units       | CDWG         |           | May 10<br>2017 | May 2<br>2018 <sup>M</sup> | May 15<br>2019 | May 14<br>2020 | May 27<br>2021 | May 27<br>2022 | May 18<br>2023 | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|----------------|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.31           | 0.22                       | 0.093          | 0.075          | 0.079          | 0.088          | 0.11           | 0.062          | 0.093          |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 148            | 133                        | 90.8           | 77             | 92             | 91             | 100            | 91             | 120            |
| <b>Anions</b>                            |             |              |           |                |                            |                |                |                |                |                |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 10.5           | 9.2                        | 9.3            | 5.8            | 5.5            | 7.6            | 8.2            | 6.3            | 11             |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 35             | 34                         | 27             | 22             | 28             | 29             | 35             | 29             | 40             |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050        | <0.0050                    | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                |                            |                |                |                |                |                |                |                |
| Apparent Colour                          | Colour Unit |              |           | 10             | 5                          | 10             | 5              | 5              | <5             | <5             | 2.6            | 3.4            |
| <b>Nutrients</b>                         |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.13           | 0.04                       | <0.015         | 0.018          | <0.015         | <0.015         | <0.015         | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                |                            |                |                |                |                |                |                |                |
| Conductivity                             | µS/cm       |              |           | 414            | 408                        | 289            | 230            | 290            | 280            | 330            | 300            | 380            |
| pH                                       | pH          | 7.0-10.5     | AO        | 8.25           | 8.16                       | 7.75           | 7.99           | 8.11           | 8.11           | 8.06           | 7.91           | 7.93           |
| TDS                                      | mg/L        | 500          | AO        | 230            | 196                        | 162            | 130            | 180            | 150            | 180            | 170            | 210            |
| Turbidity                                | NTU         |              |           | 0.25           | 0.27                       | 0.39           | <0.1           | 0.17           | <0.1           | 0.18           | 0.13           | 0.27           |
| <b>Microbiological Parameters</b>        |             |              |           |                |                            |                |                |                |                |                |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 113            | 123                        | 83.6           | 62.8           | 74.8           | 74.3           | 87.8           | 82.9           | 99.5           |
| Nitrate                                  | mg/L        | 10           | MAC       | <0.020         | 0.642                      | 0.026          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          |
| <b>Elements</b>                          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001       | <0.000002                  | <0.000002      | <0.0000019     | <0.0000019     | <0.0000019     | <0.000019      | 0.0000021      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003         | <0.003                     | 0.0061         | 0.02           | 0.0077         | 0.0086         | 0.0071         | 0.0054         | 0.0047         |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005        | <0.0005                    | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.0011         | 0.0011                     | 0.00085        | 0.00052        | 0.00089        | 0.00063        | 0.00071        | 0.00059        | 0.00098        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.0236         | 0.0105                     | 0.0055         | 0.0033         | 0.0042         | 0.0042         | 0.0045         | 0.0048         | 0.0059         |
| Total Beryllium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | 0.101          | 0.073                      | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | 0.061          |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001       | <0.00001                   | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.0001        | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002        | <0.0002                    | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00216        | 0.00349                    | 0.00359        | 0.00166        | 0.00135        | 0.00204        | 0.00161        | 0.00245        | 0.00249        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.113          | 0.0394                     | 0.035          | 0.0144         | 0.0239         | 0.0271         | 0.0502         | 0.0285         | 0.0473         |
| Total Lead                               | mg/L        | 0.01         | MAC       | <0.0002        | 0.00061                    | 0.00047        | <0.0002        | 0.00039        | 0.00041        | 0.00035        | 0.00029        | 0.00026        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.0224         | 0.0214                     | 0.0107         | 0.0036         | 0.0053         | 0.0079         | 0.0127         | 0.0092         | 0.0117         |
| Total Molybdenum                         | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 14.4           | 12.7                       | 9.38           | 8.06           | 9.14           | 8.88           | 11.2           | 8.96           | 11.9           |
| Total Silver                             | mg/L        |              |           | <0.00002       | <0.00002                   | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.175          | 0.146                      | 0.0847         | 0.0693         | 0.0788         | 0.0726         | 0.0867         | 0.079          | 0.0961         |
| Total Thallium                           | mg/L        |              |           | <0.00001       | <0.00001                   | 0.00001        | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | 0.007          | 0.0208                     | 0.0188         | 0.0071         | 0.0119         | 0.0107         | 0.01           | 0.0096         | 0.0077         |
| Total Zirconium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 28.7           | 30.8                       | 21.9           | 16.6           | 19.5           | 19.1           | 22.9           | 21.6           | 24.2           |
| Total Magnesium                          | mg/L        |              |           | 10.2           | 11.2                       | 7.05           | 5.15           | 6.35           | 6.46           | 7.45           | 7.05           | 9.51           |
| Total Potassium                          | mg/L        |              |           | 2.67           | 2.13                       | 1.56           | 1.27           | 1.51           | 1.45           | 1.82           | 1.45           | 1.93           |
| Total Sodium                             | mg/L        | 200          | AO        | 39.4           | 32.9                       | 25.8           | 22.6           | 26.9           | 28.7           | 31.6           | 29.5           | 36.5           |
| Total Sulphur                            | mg/L        |              |           | 3.7            | 3.2                        | <3             | <3             | <3             | <3             | <3             | 3.2            | 3.4            |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                   | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|----------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I = Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |

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|                                          | Units       | CDWG         |           | May 10<br>2017 | May 2<br>2018 <sup>M</sup> | May 15<br>2019 | May 14<br>2020 | May 27<br>2021 | May 27<br>2022 | May 18<br>2023 | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|----------------|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.32           | 0.18                       | 0.098          | 0.074          | 0.08           | 0.085          | 0.11           | 0.065          | 0.1            |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 147            | 145                        | 96.8           | 76             | 96             | 87             | 100            | 92             | 120            |
| <b>Anions</b>                            |             |              |           |                |                            |                |                |                |                |                |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 10.4           | 9.4                        | 8              | 5.7            | 5.6            | 6.3            | 8.2            | 6.3            | 11             |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 36             | 39                         | 27             | 21             | 28             | 27             | 35             | 29             | 39             |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050        | <0.0050                    | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                |                            |                |                |                |                |                |                |                |
| Apparent Colour                          | Colour Unit |              |           | 10             | 5                          | 5              | 5              | <5             | <5             | <5             | 3.5            | 3.8            |
| <b>Nutrients</b>                         |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.17           | <0.020                     | <0.015         | 0.023          | <0.015         | <0.0015        | <0.015         | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                |                            |                |                |                |                |                |                |                |
| Conductivity                             | µS/cm       |              |           | 413            | 422                        | 293            | 230            | 290            | 270            | 330            | 300            | 380            |
| pH                                       | pH          | 7.0:10.5     | AO        | 8.3            | 8.21                       | 7.89           | 7.97           | 8.13           | 8.11           | 8.07           | 7.88           | 7.87           |
| TDS                                      | mg/L        | 500          | AO        | 234            | 256                        | 160            | 130            | 190            | 140            | 180            | 170            | 210            |
| Turbidity                                | NTU         |              |           | <0.10          | 0.1                        | 0.3            | 0.12           | <0.1           | 0.11           | 0.25           | 0.12           | 0.26           |
| <b>Microbiological Parameters</b>        |             |              |           |                |                            |                |                |                |                |                |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 115            | 118                        | 77.9           | 61.3           | 74.7           | 69.9           | 85.3           | 78.9           | 101            |
| Nitrate                                  | mg/L        | 10           | MAC       | <0.020         | 0.119                      | 0.029          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          |
| <b>Elements</b>                          |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001       | <0.000002                  | <0.000002      | <0.0000019     | <0.0000019     | <0.0000019     | <0.0000019     | 0.0000053      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                |                            |                |                |                |                |                |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003         | <0.003                     | 0.0044         | 0.0224         | 0.0078         | 0.0093         | 0.0158         | 0.0062         | 0.0044         |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005        | <0.0005                    | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.00107        | 0.00124                    | 0.0009         | 0.00051        | 0.0009         | 0.00062        | 0.0071         | 0.0006         | 0.00101        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.0227         | 0.006                      | 0.0056         | 0.0032         | 0.0042         | 0.0038         | 0.0046         | 0.0047         | 0.0063         |
| Total Beryllium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | 0.105          | 0.071                      | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | 0.064          |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001       | <0.00001                   | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002        | <0.0002                    | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00107        | 0.0012                     | 0.00257        | 0.00135        | 0.00187        | 0.00252        | 0.00186        | 0.0023         | 0.00217        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.0299         | 0.0241                     | 0.0341         | 0.0142         | 0.0276         | 0.0255         | 0.0422         | 0.0358         | 0.0544         |
| Total Lead                               | mg/L        | 0.01         | MAC       | <0.0002        | <0.0002                    | 0.00023        | 0.0003         | 0.0005         | 0.0012         | 0.00449        | 0.0014         | 0.00050        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.0057         | 0.0067                     | 0.0111         | 0.0035         | 0.0062         | 0.0072         | 0.0135         | 0.0115         | 0.0132         |
| Total Molybdenum                         | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001         | <0.001                     | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 14             | 13.4                       | 8.84           | 7.71           | 9.06           | 8.46           | 10.6           | 8.57           | 11.9           |
| Total Silver                             | mg/L        |              |           | <0.00002       | <0.00002                   | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.18           | 0.131                      | 0.0873         | 0.0681         | 0.0773         | 0.0686         | 0.0877         | 0.0796         | 0.0976         |
| Total Thallium                           | mg/L        |              |           | <0.00001       | <0.00001                   | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | <0.005         | <0.005                     | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zirconium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | 0.00014        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 29.1           | 29.1                       | 20.4           | 16.3           | 19.2           | 18.1           | 21.5           | 20.5           | 24.2           |
| Total Magnesium                          | mg/L        |              |           | 10.3           | 10.9                       | 6.55           | 5.03           | 6.47           | 6.02           | 7.67           | 6.74           | 9.77           |
| Total Potassium                          | mg/L        |              |           | 2.65           | 2.48                       | 1.51           | 1.25           | 1.55           | 1.35           | 1.81           | 1.41           | 1.97           |
| Total Sodium                             | mg/L        | 200          | AO        | 40.6           | 38.2                       | 23.9           | 22.3           | 26.8           | 26.9           | 30.4           | 28.3           | 36.7           |
| Total Sulphur                            | mg/L        |              |           | 3.7            | 3.3                        | <3             | <3             | <3             | <3             | <3             | <3             | 3.2            |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                   | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|----------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I = Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |

# Nanose Bay Peninsula Distribution (Tap) Water Analysis

## 2329 Chain Way

(<sup>°</sup>Bulk Water online; <sup>M</sup>Parksville water online)

CDWG=Canadian Drinking Water Guidelines

MAC=Maximum Acceptable Concentration

OG= Operational Guidance Value

AO= Asthetic Objective.

Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)

Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG

|                                          | Units       | CDWG         |           | May 10<br>2017 | May 2<br>2018 <sup>M</sup> | May 15<br>2019 <sup>°</sup> | May 14<br>2020 | May 27<br>2021 | May 27<br>2022 | May 18<br>2023 | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|----------------|----------------------------|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.33           | 0.24                       | 0.089                       | 0.084          | 0.08           | 0.084          | 0.092          | <0.05          | 0.081          |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 150            | 141                        | 88.7                        | 83             | 96             | 88             | 94             | 77             | 110            |
| <b>Anions</b>                            |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 10.4           | 10.3                       | 8                           | 6.4            | 5.6            | 6.4            | 7.1            | 4.9            | 8.7            |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 36             | 32                         | 25                          | 24             | 28             | 28             | 30             | 24             | 35             |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050        | <0.0050                    | <0.005                      | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Apparent Colour                          | Colour Unit |              |           | 10             | 10                         | 5                           | 5              | <5             | <5             | <5             | <2             | 3.7            |
| <b>Nutrients</b>                         |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.16           | <0.020                     | <0.015                      | 0.081          | <0.015         | <0.015         | <0.015         | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Conductivity                             | µS/cm       |              |           | 412            | 396                        | 260                         | 260            | 240            | 270            | 290            | 250            | 340            |
| pH                                       | pH          | 7.0-10.5     | AO        | 8.28           | 7.95                       | 7.83                        | 8.03           | 8.05           | 8.1            | 7.99           | 7.89           | 7.87           |
| TDS                                      | mg/L        | 500          | AO        | 234            | 176                        | 152                         | 160            | 140            | 160            | 170            | 140            | 180            |
| Turbidity                                | NTU         |              |           | 0.17           | 0.13                       | 0.43                        | <0.1           | <0.1           | 0.1            | 0.24           | <0.1           | 0.18           |
| <b>Microbiological Parameters</b>        |             |              |           |                |                            |                             |                |                |                |                |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0                           | 0              | 0              | 0              | 0              | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0           | <1.0                       | 0                           | 0              | 0              | 0              | 0              | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 112            | 128                        | 72.9                        | 69             | 61.3           | 71.1           | 76.1           | 65.9           | 89.3           |
| Nitrate                                  | mg/L        | 10           | MAC       | <0.020         | 0.501                      | 0.035                       | 0.036          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          |
| <b>Elements</b>                          |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001       | <0.000002                  | <0.000002                   | <0.0000019     | <0.0000019     | <0.0000019     | <0.0000019     | 0.0000064      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                |                            |                             |                |                |                |                |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003         | <0.003                     | 0.0067                      | 0.0311         | 0.009          | 0.0092         | 0.0077         | 0.0049         | 0.0058         |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005        | <0.0005                    | <0.0005                     | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.00151        | 0.00096                    | 0.00095                     | 0.00118        | 0.00077        | 0.00068        | 0.00057        | 0.00051        | 0.00102        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.022          | 0.0177                     | 0.0052                      | 0.0039         | 0.0034         | 0.004          | 0.0054         | 0.0039         | 0.0056         |
| Total Beryllium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001         | <0.001                     | <0.001                      | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | 0.104          | 0.071                      | <0.05                       | <0.05          | <0.05          | <0.05          | <0.05          | <0.05          | 0.053          |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001       | <0.00001                   | <0.00001                    | <0.00001       | <0.00001       | <0.00001       | <0.0001        | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001         | <0.001                     | <0.001                      | <0.001         | <0.001         | <0.001         | <0.00001       | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002        | <0.0002                    | <0.0002                     | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00358        | 0.0026                     | 0.00351                     | 0.00133        | 0.00211        | 0.00292        | 0.00351        | 0.0031         | 0.00334        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.0757         | 0.0268                     | 0.0259                      | 0.025          | 0.0154         | 0.0278         | 0.0488         | 0.0125         | 0.0299         |
| Total Lead                               | mg/L        | 0.01         | MAC       | <0.0002        | <0.0002                    | <0.0002                     | <0.0002        | 0.00036        | 0.00046        | 0.00034        | 0.000052       | 0.00042        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.0215         | 0.0055                     | 0.0095                      | 0.0058         | 0.0029         | 0.0075         | 0.0107         | 0.0044         | 0.0082         |
| Total Molybdenum                         | mg/L        |              |           | <0.001         | <0.001                     | <0.001                      | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001         | <0.001                     | <0.001                      | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001        | <0.0001                    | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 13.5           | 11.9                       | 7.99                        | 9.03           | 7.23           | 8.71           | 8.98           | 7.05           | 10.4           |
| Total Silver                             | mg/L        |              |           | <0.00002       | <0.00002                   | <0.00002                    | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.169          | 0.152                      | 0.0788                      | 0.075          | 0.0643         | 0.0703         | 0.0816         | 0.0683         | 0.0866         |
| Total Thallium                           | mg/L        |              |           | <0.00001       | <0.00001                   | <0.00001                    | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005         | <0.005                     | <0.005                      | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005                      | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001        | <0.0001                    | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005         | <0.005                     | <0.005                      | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | 0.0105         | <0.005                     | <0.005                      | <0.005         | <0.005         | <0.005         | 0.0127         | <0.005         | <0.0050        |
| Total Zirconium                          | mg/L        |              |           | <0.0001        | <0.0001                    | <0.0001                     | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 28.3           | 31.1                       | 19                          | 17.9           | 16.1           | 18.4           | 20.7           | 17.4           | 21.9           |
| Total Magnesium                          | mg/L        |              |           | 10.1           | 12.3                       | 6.2                         | 5.9            | 5.13           | 6.14           | 5.9            | 5.47           | 8.40           |
| Total Potassium                          | mg/L        |              |           | 2.65           | 1.85                       | 1.38                        | 1.39           | 1.14           | 1.35           | 1.51           | 1.16           | 1.66           |
| Total Sodium                             | mg/L        | 200          | AO        | 39.8           | 28.6                       | 20.6                        | 24.1           | 22.7           | 27.5           | 27             | 25.1           | 32.3           |
| Total Sulphur                            | mg/L        |              |           | 3.6            | 3.3                        | <3                          | <3             | <3             | <3             | <3             | 4.2            | <3.0           |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                  | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|---------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I= Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |

# Nanoose Bay Peninsula Distribution (Tap) Water Analysis

## Water Treatment Plant: 2480 Nanoose Road

### Treated Water

CDWG=Canadian Drinking Water Guidelines  
OG= Operational Guidance Value

MAC=Maximum Acceptable Concentration  
AO= Asthetic Objective.

Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)  
Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG

|                                          | Units       | CDWG         |           | May 10<br>2017 | May 28<br>2018 | May 27<br>2019 | May 14<br>2020 | May 27<br>2021 | May 30<br>2022 | May 18<br>2023 | May 16<br>2024 | May 15<br>2025 |
|------------------------------------------|-------------|--------------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                |                |                |                |                |                |                |                |                |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.16           | 0.16           | 0.15           | 0.16           | 0.14           | 0.16           | 0.15           | 0.13           | 0.13           |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 147            | 144            | 142            | 130            | 140            | 140            | 140            | 140            | 150            |
| <b>Anions</b>                            |             |              |           |                |                |                |                |                |                |                |                |                |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 9.31           | 11.1           | 12             | 11             | 9.6            | 11             | 12             | 12             | 14             |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 40             | 48             | 53             | 43             | 48             | 53             | 51             | 48             | 49             |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050        | <0.0050        | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         |
| <b>Miscellaneous</b>                     |             |              |           |                |                |                |                |                |                |                |                |                |
| Apparent Colour                          | Colour Unit |              |           | 10             | <5             | <2             | 5              | 5              | <5             | <5             | 3.9            | 3.6            |
| <b>Nutrients</b>                         |             |              |           |                |                |                |                |                |                |                |                |                |
| Total Ammonia                            | mg/L        |              |           | 0.2            | <0.020         | <0.015         | 0.044          | <0.015         | <0.015         | <0.015         | <0.015         | <0.015         |
| <b>Physical Properties</b>               |             |              |           |                |                |                |                |                |                |                |                |                |
| Conductivity                             | µS/cm       |              |           | 424            | 450            | 453            | 410            | 440            | 470            | 460            | 490            | 470            |
| pH                                       | pH          | 6.5-8.5      | AO        | 8.3            | 8.18           | 8.03           | 8.06           | 8.19           | 8.18           | 8.18           | 7.89           | 7.92           |
| TDS                                      | mg/L        | 500          | AO        | 238            | 256            | 268            | 230            | 250            | 290            | 270            | 280            | 250            |
| Turbidity                                | NTU         |              |           | 0.15           | 0.1            | 0.21           | 0.15           | 0.12           | 0.16           | 0.27           | 0.13           | 0.28           |
| <b>Microbiological Parameters</b>        |             |              |           |                |                |                |                |                |                |                |                |                |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0           | <1.0           | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0           | <1.0           | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| <b>Calculated Parameters</b>             |             |              |           |                |                |                |                |                |                |                |                |                |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 117            | 122            | 113            | 118            | 118            | 122            | 122            | 134            | 123            |
| Nitrate                                  | mg/L        | 10           | MAC       | <0.020         | 0.020          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          | <0.02          |
| <b>Elements</b>                          |             |              |           |                |                |                |                |                |                |                |                |                |
| Total Mercury                            | mg/L        | 0.001        | MAC       | <0.00001       | <0.000002      | <0.000002      | <0.000019      | <0.0000019     | <0.0000019     | <0.0000019     | 0.0000046      | <0.0000019     |
| <b>Total Metals</b>                      |             |              |           |                |                |                |                |                |                |                |                |                |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003         | <0.003         |                | 0.003          | <0.003         | <0.003         | <0.003         | <0.003         | <0.0030        |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005        | <0.0005        |                | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.0005        | <0.00050       |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.0011         | 0.00124        |                | 0.00104        | 0.00153        | 0.00109        | 0.00102        | 0.00107        | 0.00128        |
| Total Barium                             | mg/L        | 1            | MAC       | 0.005          | 0.0045         |                | 0.0042         | 0.0045         | 0.0046         | 0.005          | 0.0052         | 0.0049         |
| Total Beryllium                          | mg/L        |              |           | <0.0001        | <0.0001        |                | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Bismuth                            | mg/L        |              |           | <0.001         | <0.001         |                | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Boron                              | mg/L        | 5            | MAC       | 0.064          | 0.07           |                | 0.065          | 0.059          | 0.06           | 0.067          | 0.069          | 0.077          |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001       | <0.00001       |                | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001         | <0.001         |                | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Cobalt                             | mg/L        |              |           | <0.0002        | <0.0002        |                | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.0002        | <0.00020       |
| Total Copper                             | mg/L        | 1            | AO        | 0.00279        | 0.00277        |                | 0.0178         | 0.00675        | 0.00681        | 0.0103         | 0.00695        | 0.00759        |
| Total Iron                               | mg/L        | 0.3          | AO        | 0.0733         | 0.0623         | 0.078          | 0.0353         | 0.065          | 0.0564         | 0.113          | 0.0626         | 0.0495         |
| Total Lead                               | mg/L        | 0.01         | MAC       | 0.00159        | 0.00109        |                | 0.00036        | 0.00026        | 0.00027        | 0.00026        | 0.00022        | 0.00021        |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.0163         | 0.0151         | 0.0208         | 0.0102         | 0.0175         | 0.0165         | 0.0352         | 0.0215         | 0.0146         |
| Total Molybdenum                         | mg/L        |              |           | <0.001         | <0.001         |                | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Nickel                             | mg/L        |              |           | <0.001         | <0.001         |                | <0.001         | <0.001         | <0.001         | <0.001         | <0.001         | <0.0010        |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001        | <0.0001        |                | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Silicon                            | mg/L        |              |           | 15.2           | 15.3           |                | 15.7           | 14.9           | 16.8           | 15.8           | 15.8           | 15.1           |
| Total Silver                             | mg/L        |              |           | <0.00002       | <0.00002       |                | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.00002       | <0.000020      |
| Total Strontium                          | mg/L        |              |           | 0.116          | 0.126          |                | 0.125          | 0.118          | 0.122          | 0.123          | 0.131          | 0.116          |
| Total Thallium                           | mg/L        |              |           | <0.00001       | <0.00001       |                | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.00001       | <0.000010      |
| Total Tin                                | mg/L        |              |           | <0.005         | <0.005         |                | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Titanium                           | mg/L        |              |           | <0.005         | <0.005         |                | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001        | <0.0001        |                | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Vanadium                           | mg/L        |              |           | <0.005         | <0.005         |                | <0.005         | <0.005         | <0.005         | <0.005         | <0.005         | <0.0050        |
| Total Zinc                               | mg/L        | 5            | AO        | <0.005         | <0.005         |                | 0.0052         | <0.005         | <0.005         | 0.0066         | <0.005         | 0.0059         |
| Total Zirconium                          | mg/L        |              |           | <0.0001        | <0.0001        |                | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.0001        | <0.00010       |
| Total Calcium                            | mg/L        |              |           | 29.7           | 30.3           | 27.7           | 29.3           | 29             | 30.5           | 30.3           | 33.3           | 29.2           |
| Total Magnesium                          | mg/L        |              |           | 10.3           | 11.2           | 10.7           | 10.8           | 11.1           | 11.1           | 11.2           | 12.3           | 12.2           |
| Total Potassium                          | mg/L        |              |           | 2.62           | 2.83           | 2.68           | 2.77           | 2.64           | 2.49           | 2.71           | 2.6            | 2.54           |
| Total Sodium                             | mg/L        | 200          | AO        | 38.3           | 45.8           | 45.1           | 38.5           | 40.6           | 44.6           | 42.8           | 44.9           | 44.8           |
| Total Sulphur                            | mg/L        |              |           | 3.2            | <3.0           | <3.0           | 4              | <3             | 3.4            | 3.6            | 3.7            | 4.1            |

Notes below about Manganese (2019) from: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

| Type                                   | Parameter<br>(published, reaffirmed) | MAC<br>(mg/L) | Other value (mg/L) | Common sources of<br>parameter in water                                                                                                                                                 | Health<br>considerations                                                                                                                                                                                                                                                                                | Comments                                                                                                          |
|----------------------------------------|--------------------------------------|---------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| I = Inorganic<br>chemical<br>parameter | Manganese (2019)                     | 0.12          | AO: <0.02          | Dissolution of naturally-<br>occurring minerals commonly<br>found in soil and rock. Other<br>sources include industrial<br>discharge, mining activities and<br>leaching from landfills. | <b>Health Basis of MAC:</b> Effects on<br>neurological development and<br>behaviour; deficits in memory,<br>attention, and motor skills.<br><b>Other:</b> Formula-fed infants (where<br>water containing manganese at levels<br>above the MAC is used to prepare<br>formula) may be especially at risk. | AO based on minimizing the<br>occurrence of discoloured water,<br>consumer complaints and staining of<br>laundry. |