# Drinking Water Quality for the Period of April 2019 - March 2020

**Points to Note:**

- The Government of the Hong Kong Special Administrative Region has adopted the corresponding guideline values (GVs)/provisional guideline values (PGVs) in the fourth edition of the World Health Organization's *Guidelines for Drinking-water Quality* (WHO Guidelines) published in 2011 as the Hong Kong Drinking Water Standards (HKDWS).
- Drinking water samples were taken at water treatment works, service reservoirs, connection points and publicly accessible consumer taps.
- The testing results of the drinking water samples taken during this period fully complied with the HKDWS.

## Part A. Microbiological parameters

| Parameter | Unit | Monitoring Data (04/2019 - 03/2020) | | | HKDWS | Compliance |
|---|---|---|---|---|---|---|
| | | Minimum | Maximum | Average | | |
| *E. coli* | cfu* per 100 mL | 0 | 0 | 0 | 0 | ✓ |
| Total Coliforms (Note 1) | cfu* per 100 mL | 0 | 0 | 0 | - | - |
| Cryptosporidium (Note 2) | no. of oocyst per L | 0.00 | 0.00 | 0.00 | - | - |
| Giardia (Note 2) | no. of cyst per L | 0.00 | 0.00 | 0.00 | - | - |

* Colony forming unit (cfu)

**Notes:**

(1) Although the HKDWS does not have a standard value for Total Coliforms, the WSD also monitors Total Coliforms in drinking water.

(2) Although the HKDWS does not have a standard value for Cryptosporidium or Giardia, the WSD also monitors Cryptosporidium and Giardia in drinking water. The monitoring result of 0.00 oocyst/cyst per litre represents no oocyst or cyst detected in the drinking water sample of volume not less than 100 litres.

**Part B. Chemical parameters**

| Parameter | Unit | Monitoring Data (04/2019 - 03/2020) | | | HKDWS | Compliance |
|---|---|---|---|---|---|---|
| | | Minimum | Maximum | Average | | |
| Acrylamide | µg/L | < 0.4 | < 0.4 | < 0.4 | ≤ 0.5 | ✓ |
| Alachlor | µg/L | < 5.0 | < 5.0 | < 5.0 | ≤ 20 | ✓ |
| Aldicarb | µg/L | < 2.5 | < 2.5 | < 2.5 | ≤ 10 | ✓ |
| Aldrin and Dieldrin | µg/L | < 0.008 | < 0.008 | < 0.008 | ≤ 0.03 | ✓ |
| Antimony | mg/L | < 0.001 | < 0.001 | < 0.001 | ≤ 0.02 | ✓ |
| Arsenic | mg/L | < 0.001 | < 0.001 | < 0.001 | ≤ 0.01 | ✓ |
| Atrazine and its chloro-s-triazine metabolites | µg/L | < 25 | < 25 | < 25 | ≤ 100 | ✓ |
| Barium | mg/L | 0.003 | 0.020 | 0.013 | ≤ 0.7 | ✓ |
| Benzene | µg/L | < 2.5 | < 2.5 | < 2.5 | ≤ 10 | ✓ |
| Benzo(a)pyrene | µg/L | < 0.0020 | < 0.0020 | < 0.0020 | ≤ 0.7 | ✓ |
| Boron | mg/L | < 0.02 | 0.05 | 0.02 | ≤ 2.4 | ✓ |
| Bromate | µg/L | < 2.5 | 2.5 | < 2.5 | ≤ 10 | ✓ |
| Bromodichloromethane | µg/L | < 15 | 22 | < 15 | ≤ 60 | ✓ |
| Bromoform | µg/L | < 25 | < 25 | < 25 | ≤ 100 | ✓ |
| Cadmium | mg/L | < 0.001 | < 0.001 | < 0.001 | ≤ 0.003 | ✓ |
| Carbofuran | µg/L | < 1.2 | < 1.2 | < 1.2 | ≤ 7 | ✓ |
| Carbon tetrachloride | µg/L | < 0.50 | < 0.50 | < 0.50 | ≤ 4 | ✓ |
| Chlorate | µg/L | < 25 | 98 | < 25 | ≤ 700 | ✓ |
| Chlordane | µg/L | < 0.050 | < 0.050 | < 0.050 | ≤ 0.2 | ✓ |
| Chlorine | mg/L | < 0.1 | 1.5 | 0.7 | ≤ 5 | ✓ |
| Chlorite | µg/L | < 25 | < 25 | < 25 | ≤ 700 | ✓ |
| Chloroform | µg/L | < 50 | < 50 | < 50 | ≤ 300 | ✓ |
| Chlorotoluron | µg/L | < 2.5 | < 2.5 | < 2.5 | ≤ 30 | ✓ |
| Chlorpyrifos | µg/L | < 7.5 | < 7.5 | < 7.5 | ≤ 30 | ✓ |

| Parameter | Unit | Monitoring Data (04/2019 - 03/2020) | | | HKDWS | Compliance |
|---|---|---|---|---|---|---|
| | | Minimum | Maximum | Average | | |
| Chromium | mg/L | < 0.001 | < 0.001 | < 0.001 | ≤ 0.05 | ✓ |
| Copper | mg/L | < 0.003 | 0.081 | < 0.003 | ≤ 2 | ✓ |
| Cyanazine | µg/L | < 0.15 | < 0.15 | < 0.15 | ≤ 0.6 | ✓ |
| 2,4-D (or 2,4-dichlorophenoxyacetic acid) | µg/L | < 7.5 | < 7.5 | < 7.5 | ≤ 30 | ✓ |
| 2,4-DB ( or 4-(2,4-dichlorophenoxy)butyric acid) | µg/L | < 22 | < 22 | < 22 | ≤ 90 | ✓ |
| DDT and metabolites | µg/L | < 0.50 | < 0.50 | < 0.50 | ≤ 1 | ✓ |
| Di(2-ethylhexyl)phthalate | µg/L | < 2 | < 2 | < 2 | ≤ 8 | ✓ |
| Dibromoacetonitrile | µg/L | < 0.5 | 0.84 | < 0.5 | ≤ 70 | ✓ |
| Dibromochloromethane | µg/L | < 25 | < 25 | < 25 | ≤ 100 | ✓ |
| 1,2-Dibromo-3-chloropropane | µg/L | < 0.25 | < 0.25 | < 0.25 | ≤ 1 | ✓ |
| 1,2-Dibromoethane | µg/L | < 0.10 | < 0.10 | < 0.10 | ≤ 0.4 | ✓ |
| Dichloroacetate | µg/L | < 2 | 15 | 5.7 | ≤ 50 | ✓ |
| Dichloroacetonitrile | µg/L | < 2.5 | < 2.5 | < 2.5 | ≤ 20 | ✓ |
| 1,2-Dichlorobenzene | µg/L | < 250 | < 250 | < 250 | ≤ 1000 | ✓ |
| 1,4-Dichlorobenzene | µg/L | < 75 | < 75 | < 75 | ≤ 300 | ✓ |
| 1,2-Dichloroethane | µg/L | < 7.5 | < 7.5 | < 7.5 | ≤ 30 | ✓ |
| 1,2-Dichloroethene | µg/L | < 12 | < 12 | < 12 | ≤ 50 | ✓ |
| Dichloromethane | µg/L | < 5.0 | 5.0 | < 5.0 | ≤ 20 | ✓ |
| 1,2-Dichloropropane | µg/L | < 5.0 | < 5.0 | < 5.0 | ≤ 40 | ✓ |
| 1,3-Dichloropropene | µg/L | < 5.0 | < 5.0 | < 5.0 | ≤ 20 | ✓ |
| Dichlorprop (or 2,4-DP) | µg/L | < 25 | < 25 | < 25 | ≤ 100 | ✓ |
| Dimethoate | µg/L | < 1.5 | < 1.5 | < 1.5 | ≤ 6 | ✓ |
| 1,4-Dioxane | µg/L | < 1.5 | 1.9 | < 1.5 | ≤ 50 | ✓ |
| Edetic acid (EDTA) | µg/L | < 30 | < 30 | < 30 | ≤ 600 | ✓ |
| Endrin | µg/L | < 0.15 | < 0.15 | < 0.15 | ≤ 0.6 | ✓ |

| Parameter | Unit | Monitoring Data (04/2019 - 03/2020) | | | HKDWS | Compliance |
|---|---|---|---|---|---|---|
| | | Minimum | Maximum | Average | | |
| Epichlorohydrin | µg/L | < 0.4 | < 0.4 | < 0.4 | ≤ 0.4 | ✓ |
| Ethylbenzene | µg/L | < 75 | < 75 | < 75 | ≤ 300 | ✓ |
| Fenoprop (or 2,4,5-TP) | µg/L | < 2.2 | < 2.2 | < 2.2 | ≤ 9 | ✓ |
| Fluoride | mg/L | 0.18 | 0.64 | 0.49 | ≤ 1.5 | ✓ |
| Hexachlorobutadiene | µg/L | < 0.15 | < 0.15 | < 0.15 | ≤ 0.6 | ✓ |
| Hydroxyatrazine | µg/L | < 50 | < 50 | < 50 | ≤ 200 | ✓ |
| Isoproturon | µg/L | < 2.0 | < 2.0 | < 2.0 | ≤ 9 | ✓ |
| Lead | mg/L | < 0.001 | < 0.001 | < 0.001 | ≤ 0.01 | ✓ |
| Lindane | µg/L | < 0.50 | < 0.50 | < 0.50 | ≤ 2 | ✓ |
| MCPA (or (2-methyl-4-chlorophenoxy)acetic acid) | µg/L | < 2.0 | < 2.0 | < 2.0 | ≤ 2 | ✓ |
| Mecoprop (or MCPP) | µg/L | < 2.5 | < 2.5 | < 2.5 | ≤ 10 | ✓ |
| Mercury | mg/L | < 0.00005 | < 0.00005 | < 0.00005 | ≤ 0.006 | ✓ |
| Methoxychlor | µg/L | < 5.0 | < 5.0 | < 5.0 | ≤ 20 | ✓ |
| Metolachlor | µg/L | < 2.5 | < 2.5 | < 2.5 | ≤ 10 | ✓ |
| Microcystin-LR (total) | µg/L | < 0.5 | < 0.5 | < 0.5 | ≤ 1 | ✓ |
| Molinate | µg/L | < 1.5 | < 1.5 | < 1.5 | ≤ 6 | ✓ |
| Monochloramine | mg/L | < 1.0 | < 1.0 | < 1.0 | ≤ 3 | ✓ |
| Monochloroacetate | µg/L | < 2 | < 2 | < 2 | ≤ 20 | ✓ |
| Nickel | mg/L | < 0.001 | 0.003 | < 0.001 | ≤ 0.07 | ✓ |
| Nitrate (as $NO_3^-$ ) | mg/L | < 2.5 | 12 | 4.2 | ≤ 50 | ✓ |
| Nitrilotriacetic acid | µg/L | < 30 | < 30 | < 30 | ≤ 200 | ✓ |
| Nitrite (as $NO_2^-$ ) | mg/L | < 0.004 | 0.008 | < 0.004 | ≤ 3 | ✓ |
| N-Nitrosodimethylamine | µg/L | < 0.025 | < 0.025 | < 0.025 | ≤ 0.1 | ✓ |
| Pendimethalin | µg/L | < 5.0 | < 5.0 | < 5.0 | ≤ 20 | ✓ |
| Pentachlorophenol | µg/L | < 2.2 | < 2.2 | < 2.2 | ≤ 9 | ✓ |

| Parameter | Unit | Monitoring Data (04/2019 - 03/2020) | | | HKDWS | Compliance |
|---|---|---|---|---|---|---|
| | | Minimum | Maximum | Average | | |
| Selenium | mg/L | < 0.003 | < 0.003 | < 0.003 | ≤ 0.04 | ✓ |
| Simazine | µg/L | < 0.50 | < 0.50 | < 0.50 | ≤ 2 | ✓ |
| Sodium dichloroisocyanurate (as cyanuric acid) | mg/L | < 10 | < 10 | < 10 | ≤ 40 | ✓ |
| Styrene | µg/L | < 5.0 | < 5.0 | < 5.0 | ≤ 20 | ✓ |
| 2,4,5-T (or 2,4,5-trichlorophenoxy acetic acid) | µg/L | < 2.2 | < 2.2 | < 2.2 | ≤ 9 | ✓ |
| Terbuthylazine | µg/L | < 1.8 | < 1.8 | < 1.8 | ≤ 7 | ✓ |
| Tetrachloroethene | µg/L | < 10 | < 10 | < 10 | ≤ 40 | ✓ |
| Toluene | µg/L | < 175 | < 175 | < 175 | ≤ 700 | ✓ |
| Trichloroacetate | µg/L | < 2 | 9.4 | 3.9 | ≤ 200 | ✓ |
| Trichloroethene | µg/L | < 18 | < 18 | < 18 | ≤ 20 | ✓ |
| 2,4,6-Trichlorophenol | µg/L | < 50 | < 50 | < 50 | ≤ 200 | ✓ |
| Trifluralin | µg/L | < 5.0 | < 5.0 | < 5.0 | ≤ 20 | ✓ |
| Uranium | mg/L | < 0.0002 | 0.0004 | < 0.0002 | ≤ 0.03 | ✓ |
| Vinyl chloride | µg/L | < 0.20 | < 0.20 | < 0.20 | ≤ 0.3 | ✓ |
| Xylenes | µg/L | < 125 | < 125 | < 125 | ≤ 500 | ✓ |

**Note:**

The above statistics do not include the data collected under the Enhanced Water Quality Monitoring Programme (Enhanced Programme) launched by the WSD since December 2017. The programme takes drinking water samples from consumer taps in premises of consumers randomly selected over the territory for testing six metals, namely antimony, cadmium, chromium, copper, lead and nickel, which could be present in an internal plumbing system, to monitor the relevant drinking water quality at consumer taps. The statistics of the monitoring data of the Enhanced Programme are published on the WSD's website (www.wsd.gov.hk/en/dwsewqmp) on a weekly basis.

**Part C. Radiological parameters**

| Parameter | Unit | Monitoring Data (04/2019 - 03/2020) | | | HKDWS Screening Level (Note 1) | Below Screening Level |
|---|---|---|---|---|---|---|
| | | Minimum | Maximum | Average | | |
| Gross alpha activity | Bq/L | < 0.1 | < 0.1 | < 0.1 | < 0.5 | ✓ |
| Gross beta activity | Bq/L | < 0.2 | < 0.2 | < 0.2 | < 1.0 | ✓ |

**Note:**

(1) The screening levels for radiation in drinking water for gross alpha activity and gross beta activity are 0.5 Bq/L and 1.0 Bq/L respectively, below which no further investigation or detailed analysis for specific radionuclides is required.

**Part D. Other parameters**

| Parameter | Unit | Monitoring Data (04/2019 - 03/2020) | | |
|---|---|---|---|---|
| | | Minimum | Maximum | Average |
| pH at 25 ℃ | pH | 7.1 | 9.1 | 8.4 |
| Colour | Hazen unit | < 5 | < 5 | < 5 |
| Turbidity | NTU | < 0.1 | 2.9 | 0.2 |
| Conductivity at 25 ℃ | µS/cm | 60 | 197 | 135 |
| Temperature | ℃ | 17.2 | 33.0 | 25.5 |
| Total alkalinity (as $CaCO_3$) | mg/L | 7 | 40 | 24 |
| Total hardness (as $CaCO_3$) | mg/L | < 5 | 61 | 36 |
| Calcium | mg/L | 0.9 | 19 | 11 |
| Magnesium | mg/L | 0.42 | 2.3 | 1.4 |
| Chloride | mg/L | < 5 | 17 | 10 |
| Sulphate | mg/L | 5 | 26 | 13 |
| Ortho-phosphates (as $PO_4$) | mg/L | < 0.01 | 0.01 | < 0.01 |
| Iron | mg/L | < 0.01 | 0.08 | < 0.01 |
| Aluminium | mg/L | < 0.01 | 0.27 | 0.03 |
| Silica (as $SiO_2$) | mg/L | 0.6 | 19 | 10 |
| Manganese | mg/L | < 0.01 | 0.04 | < 0.01 |

**Note:**
The above parameters relate to the general physical and chemical properties of the drinking water in Hong Kong. The HKDWS does not include these parameters and hence there are no standard values for them.