

STATEMENT OF WATER QUALITY OBJECTIVES (DEEP BAY WATER CONTROL ZONE)
- CHAPTER 358R

LONG TITLE

Empowering section VerDate:30/06/1997

(Cap 358 section 5)

[30 November 1990]

(L.N. 381 of 1990)

PARAGRAPH 1

VerDate:30/06/1997

The water quality objectives set out in column 1 of the Schedule are established for those parts of the Deep Bay Water Control Zone set opposite those water quality objectives in column 2.
(Enacted 1990)

PARAGRAPH 2

VerDate:30/06/1997

In this statement-

"Beas Subzone" means the area delineated as such on maps DBWCZ 1, DBWCZ 2, DBWCZ 4 and DBWCZ 5;

"Ganges Subzone" means the area delineated as such on map DBWCZ 2;

"Indus Subzone" means the area delineated as such on maps DBWCZ 1 and DBWCZ 2;

"Inner Marine Subzone" means territorial waters to the north and east of the Mariculture Subzone;

"map DBWCZ 1" "map DBWCZ 2", "map DBWCZ 3", "map DBWCZ 4" and "map DBWCZ 5" mean a series of maps numbered as such and signed by the Secretary for Planning, Environment and Lands on 23 November 1990 and deposited in the Land Registry, Victoria; (8 of 1993 s. 30)

"Mariculture Subzone" means the area delineated as such on maps DBWCZ 1, DBWCZ 3 and DBWCZ 4;

"marine waters" means all waters below the high water mark within the boundaries of the Deep Bay Water Control Zone;

"Outer Marine Subzone" means territorial waters to the north of the Secondary Contact Recreation Subzone;

"Secondary Contact Recreation Subzone" means the area delineated as such on map DBWCZ 3;

"Water Gathering Ground Subzones" means the areas delineated as such on maps DBWCZ 2, DBWCZ 4 and DBWCZ 5;

"Yuen Long & Kam Tin (Lower) Subzone" means the area delineated as such on maps DBWCZ 1 and DBWCZ 4;

"Yuen Long & Kam Tin (Upper) Subzone" means the area delineated as such on maps DBWCZ 1, DBWCZ 4 and DBWCZ 5;

"Yung Long Bathing Beach Subzone" means the area delineated as such on map DBWCZ 3.
(Enacted 1990)

[paragraph 1]

Water Quality Objective

Part or Parts of Zone

A. AESTHETIC APPEARANCE

- (a) Waste discharges shall cause no objectionable odours or discolouration of the water.
- (b) Tarry residues, floating wood, articles made of glass, plastic, rubber or of any other substances should be absent.
- (c) Mineral oil should not be visible on the surface. Surfactants should not give rise to a lasting foam.
- (d) There should be no recognisable sewage-derived debris.
- (e) Floating, submerged and semi-submerged objects of a size likely to interfere with the free movement of vessels, or cause damage to vessels, should be absent.
- (f) Waste discharges shall not cause the water to contain substances which settle to form objectionable deposits.
 - Whole Zone
 - Whole Zone

B. BACTERIA

- (a) The level of Escherichia coli should not exceed 610 per 100 mL, calculated as the geometric mean of all samples collected in one calendar year.
- (b) The level of Escherichia coli should be zero per 100 ml, calculated as the running median of the most recent 5 consecutive samples taken at intervals of between 7 and 21 days.
- (c) The level of Escherichia coli should not exceed 1000 per 100 ml, calculated as the running median of the most recent 5 consecutive samples taken at intervals of between 7 and 21 days.
- (d) The level of Escherichia coli should not exceed 180 per 100 mL, calculated as the geometric mean of all samples collected from March to October inclusive in one calendar year. Samples should be taken at least 3 times in a calendar month at intervals of between 3 and 14 days.

Secondary Contact Recreation Subzone and Mariculture Subzone (L.N. 455 of 1991)

Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones

Yuen Long & Kam Tin (Lower) Subzone and other inland waters

Yung Long Bathing Beach Subzone (L.N. 455 of 1991)

C. COLOUR

(a) Waste discharges shall not cause the colour of water to exceed 30 Hazen units.

(b) Waste discharges shall not cause the colour of water to exceed 50 Hazen units.

Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones

Yuen Long & Kam Tin (Lower) Subzone and other inland waters

D. DISSOLVED OXYGEN

(a) Waste discharges shall not cause the level of dissolved oxygen to fall below 4 milligrams per litre for 90% of the sampling occasions during the year; values should be taken at 1 metre below surface.

(b) Waste discharges shall not cause the level of dissolved oxygen to fall below 4 milligrams per litre for 90% of the sampling occasions during the year; values should be calculated as water column average (arithmetic mean of at least 2 measurements at 1 metre below surface and 1 metre above seabed). In addition, the concentration of dissolved oxygen should not be less than 2 milligrams per litre within 2 metres of the seabed for 90% of the sampling occasions during the year.

(c) The dissolved oxygen level should not be less than 5 milligrams per litre for 90% of the sampling occasions during the year; values should be taken at 1 metre below surface.

(d) Waste discharges shall not cause the level of dissolved oxygen to be less than 4 milligrams per litre.

Inner Marine Subzone excepting Mariculture Subzone

Outer Marine Subzone excepting Mariculture Subzone

Mariculture Subzone

Yuen Long & Kam Tin (Upper and Lower) Subzones, Beas Subzone, Indus Subzone, Ganges Subzone, Water Gathering Ground Subzones and other inland waters of the Zone

E. pH

(a) The pH of the water should be within the range of 6.5-8.5 units. In addition, waste discharges shall not cause the natural pH range to be extended by more than 0.2 units.

(b) Waste discharges shall not cause the pH of the water to exceed the range of 6.5-8.5 units.

(c) The pH of the water should be within the range of 6.0-9.0 units.

(d) The pH of the water should be within the range of 6.0-9.0 units for 95% of samples. In addition, waste discharges shall not cause the natural pH range to be extended by more than 0.5 units.

Marine waters excepting Yung Long Bathing Beach Subzone

Yuen Long & Kam Tin (Upper and Lower) Subzones, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones Other inland waters

Yung Long Bathing Beach Subzone

F. TEMPERATURE

Waste discharges shall not cause the natural daily temperature range to change by more than 2.0 degrees Celsius.

Whole Zone

G. SALINITY

Waste discharges shall not cause the natural ambient salinity level to change by more than 10%

Whole Zone

H. SUSPENDED SOLIDS

(a) Waste discharges shall neither cause the natural ambient level to be raised by 30% nor give rise to accumulation of suspended solids which may adversely affect aquatic communities.

(b) Waste discharges shall not cause the annual median of suspended solids to exceed 20 milligrams per litre.

Marine waters

Yuen Long & Kam Tin (Upper and Lower) Subzones, Beas Subzone, Ganges Subzone, Indus Subzone, Water Gathering Ground Subzones and other inland waters

I. AMMONIA

The un-ionized ammoniacal nitrogen level should not be more than 0.021 milligram per litre, calculated as the annual average (arithmetic mean).

Whole Zone

J. NUTRIENTS

(a) Nutrients shall not be present in quantities sufficient to cause excessive or nuisance growth of algae or other aquatic plants.

(b) Without limiting the generality of objective (a) above, the level of inorganic nitrogen should not exceed 0.7 milligram per litre, expressed as annual mean.

(c) Without limiting the generality of objective (a) above, the level of inorganic nitrogen should not exceed 0.5 milligram per litre, expressed as annual water column average (arithmetic mean of at least 2 measurements at 1 metre below surface and 1 metre above seabed).

Inner and Outer Marine Subzones

Inner Marine Subzone

Outer Marine Subzone

K. 5-DAY BIOCHEMICAL OXYGEN DEMAND

(a) Waste discharges shall not cause the 5-day biochemical oxygen demand to exceed 3 milligrams per litre.

(b) Waste discharges shall not cause the 5-day biochemical oxygen demand to exceed 5 milligrams per litre.

Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones

Yuen Long & Kam Tin (Lower) Subzone and other inland waters

L. CHEMICAL OXYGEN DEMAND

(a) Waste discharges shall not cause the chemical oxygen demand to exceed 15 milligrams per litre.

(b) Waste discharges shall not cause the chemical oxygen demand to exceed 30 milligrams per litre.

Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones

Yuen Long & Kam Tin (Lower) Subzone and other inland waters

M. TOXINS

(a) Waste discharges shall not cause the toxins in water to attain such levels as to produce significant toxic carcinogenic, mutagenic or teratogenic effects in humans, fish or any other aquatic organisms, with due regard to biologically cumulative effects in food chains and to toxicant interactions with each other.

(b) Waste discharges shall not cause a risk to any beneficial uses of the aquatic environment.

Whole Zone

N. PHENOL

Phenols shall not be present in such quantities as to produce a specific odour, or in concentration greater than 0.05 milligrams per litre as C₆H₅OH.

Yung Long Bathing Beach Subzone

O. TURBIDITY

Waste discharges shall not reduce light transmission substantially from the normal level.

Yung Long Bathing Beach Subzone

(Enacted 1990)