STATEMENT OF WATER QUALITY OBJECTIVES (WESTERN BUFFER WATER CONTROL ZONE)
- CHAPTER 358AD

LONG TITLE
Empowering section VerDate:30/06/1997

(Cap 358 section 5)

[28 May 1993]

(L.N. 174 of 1993)

SECT 1
VerDate:30/06/1997

The water quality objectives set out in column 1 of the Schedule are established for those parts of the Western Buffer Water Control Zone set opposite those water quality objectives in column 2.
(Enacted 1993)

SECT 2
VerDate:30/06/1997

In this Statement-
"Bathing Beach Subzone" means a bathing beach that is specified in the Fourth Schedule to the Public Health and Municipal Services Ordinance (Cap 132) and situated in the Western Buffer Water Control Zone;
"Fish Culture Subzone" means an area of water designated as a fish culture zone under the Fish Culture Zone (Designation) Order (Cap 353 sub. leg.) and situated in the Western Buffer Water Control Zone;
"Map" means a series of maps comprising 2 sheets and marked WBWCZ 1 and WBWCZ 2 described as "Western Buffer Water Control Zone", signed by the Secretary for Planning, Environment and Lands on 19 May 1993 and deposited in the Land Registry, Victoria;
"marine waters" means all waters below the high water mark within the boundary of the Western Buffer Water Control Zone;
"other inland waters" means inland waters other than those in the Water Gathering Ground Subzones;
"Secondary Contact Recreation Subzone" means an area delineated as such on the Map, except where the area is more specifically designated as a bathing beach or Fish Culture Subzone;
"Water Gathering Ground Subzone" means an area delineated as such on the Map.
(Enacted 1993)

SCHEDULE VerDate:30/06/1997
[section 1]

Water Quality Objective	Part or Parts of Zone
A. AESTHETIC APPEARANCE	
(a) There should be no objectionable odours or discolouration of the water.	Whole zone

(b) Tarry residues, floating wood, articles made of glass, plastic, rubber or of any other substances should be absent.	Whole zone
(c) Mineral oil should not be visible on the surface. Surfactants should not give rise to a lasting foam.	Whole zone
(d) There should be no recognisable sewage-derived debris.	Whole zone
(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.	Whole zone
(f) The water should not contain substances which settle to form objectionable deposits.	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 a calendar year.	Secondary Contact Recreation Subzones and Fish Culture Subzones
(b) 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 1 calendar year. Samples should be taken at least 3 times in 1 calendar month at intervals of between 3 and 14 days.	Recreation Subzones
(c) The level of Escherichia coli should be less than 1 per 100 mL, calculated as the geometric mean of the most recent 5 consecutive samples taken at intervals of between 7 and 21 days.	Water Gathering Ground Subzones
(d) The level of Escherichia coli should not exceed 1000 per 100 mL, calculated as the geometric mean of the most recent 5 consecutive samples taken at intervals of between 7 and 21 days.	Other inland waters

C. COLOUR

(a) Human activity should not cause the colour of water to exceed 30 Hazen units.	Water Gathering Ground Subzones
(b) Human activity should not cause the colour of water to exceed 50 Hazen units.	Other inland waters

D. DISSOLVED OXYGEN

(a) The level of dissolved oxygen should not fall below 4 mg per litre for 90% of the sampling occasions during the whole year; values should be calculated as water column average (arithmetic mean of at least 3 measurements at 1 m below surface, mid-depth and 1 m above seabed). In addition, the concentration of dissolved oxygen should not be less than 2	Marine waters excepting Fish Culture Subzones

mg per litre within 2 m of the seabed for 90% of the sampling occasions during the whole year.	
(b) The level of dissolved oxygen should not be less than 5 mg per litre for 90% of the sampling occasions during the years; values should be calculated as water column average (arithmetic mean of at least 3 measurements at 1 m below surface, mid-depth and 1 m above seabed). In addition, the concentration of dissolved oxygen should not be less than 2 mg per litre within 2 m of the seabed for 90% of the sampling occasions during the whole year.	Fish Culture Subzones
(c) The level of dissolved oxygen should not be less than 4 mg per litre.	Water Gathering Ground Subzones and other inland waters
E. pH	
(a) The pH of the water should be within the range of 6.5-8.5 units. In addition, human activity should not cause the natural pH range to be extended by more than 0.2 unit.	Marine waters
(b) Human activity should not cause the pH of the water to exceed the range of 6.5-8.5 units.	Water Gathering Ground Subzones
(c) Human activity should not cause the pH of the water to exceed the range of 6.0-9.0 units.	Other inland waters
F. TEMPERATURE Human activity should not cause the natural daily temperature range to change by more than 2.0 degrees Celsius.	Whole zone
G. SALINITY Human activity should not cause the natural ambient salinity level to change by more than 10%.	Whole zone
H. SUSPENDED SOLIDS	
(a) Human activity should neither cause the natural ambient level to be raised by more than 30% nor give rise to accumulation of suspended solids which may adversely affect aquatic communities.	Marine waters
(b) Human activity should not cause the annual median of suspended solids to exceed 20 mg per litre.	Water Gathering Ground Subzones
(c) Human activity should not cause the annual median of suspended solids to exceed 25 mg per litre.	Other inland waters

I. AMMONIA

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

J. NUTRIENTS

(a) Nutrients should not be present in quantities sufficient to cause excessive or nuisance growth of algae or other aquatic plants.	Marine waters
(b) Without limiting the generality of objective (a) above, the level of inorganic nitrogen should not exceed 0.4 mg per litre, expressed as annual water column average (arithmetic mean of at least 3 measurements at 1 m below surface, mid-depth and 1 m above seabed).	Marine waters

K. 5-DAY BIOCHEMICAL OXYGEN DEMAND

(a) The 5-day biochemical oxygen demand should not exceed 3 mg per litre.	Water Gathering Ground Subzones
(b) The 5-day biochemical oxygen demand should not exceed 5 mg per litre.	Other inland waters

L. CHEMICAL OXYGEN DEMAND

(a) The chemical oxygen demand should not exceed 15 mg per litre.	Water Gathering Ground Subzones
(b) The chemical oxygen demand should not exceed 30 mg per litre.	Other inland waters

M. TOXIC SUBSTANCES

(a) Toxic substances in the water should not 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 interactions of toxic substances with each other.	Whole zone
(b) Human activity should not cause a risk to any beneficial use of the aquatic environment.	Whole zone

N. TURBIDITY

Waste discharges should not reduce light transmission substantially from the normal level. (Enacted 1993)	Bathing Beach Subzones