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Environment Protection Act 1970 (No. 8056).

STATE ENVIRONMENT PROTECTION POLICY.
(THE WATERS OF PORT PHILLIP BAY.)

At the Executive Council Chamber, Melbourne, the eighth day of April, 1975.

PRESENT :

His Excellency the Governor of Victoria.

Mr. Meagher		Mr. Balfour
Mr. Borthwick		Mr. Houghton.

Whereas Section 16 of the *Environment Protection Act 1970* provides that the Governor in Council may, on the recommendation of the Environment Protection Authority, declare the environment protection policy to be observed with respect to the environment generally or in any portion or portions of Victoria or with respect to any element or elements or segment or segments of the environment and

Whereas Section 17 (1) of the said Act provides that in and by any Order made under Section 16 the Governor in Council may, for securing the observance of State environment protection policy declared by the Order—

- (a) classify any area or any segment or element of the environment in any area for the purpose of the Order ;
- (b) set aside any area or areas or any segment or segments of the environment within which the discharge, emission, or deposit of wastes is prohibited or restricted as specified in the Order ;
- (c) make rules to be observed for carrying any such prohibition or restriction into effect ; and
- (d) delegate to any protection agency such of the powers of the Authority as are necessary for securing the observance of the Order ;

And whereas Section 18 of the said Act provides that State environment protection policy declared in any Order under Section 16 shall establish the basis for maintaining environmental quality sufficient to protect existing and anticipated beneficial uses in the area affected by the Order and in particular shall include in terms sufficiently clear to give an adequate basis for planning and licensing functions—

- (a) the boundaries of any area affected ;
- (b) identification of the beneficial uses to be protected ;
- (c) selection of the environmental indicators to be employed to measure and define the environmental quality ;
- (d) a statement of the environmental quality objectives (where practicable) ; and
- (e) the programme (if any) by which the stated environmental quality objectives are to be attained and maintained ;

And whereas in accordance with Section 19 of the said Act the Authority caused the publication of its notice of intention to declare State environment protection policy in respect of the waters of Port Phillip Bay in *The Age*, *The Sun* and *The Herald* newspapers on 2nd September, 1972, *The Age* newspaper on 9th September, 1972, *The Sun* newspaper on 16th September, 1972, *The Herald* newspaper on 23rd September, 1972, *The Australian Financial Review* newspaper on 25th September, 1972 and *The Age* newspaper on 30th September, 1972 and

Whereas the Authority has now considered the information submitted by various persons and
Whereas more than two months have elapsed since the publication of the last notice published in the aforementioned newspapers ;

Now therefore His Excellency the Governor of Victoria by and with the advice of the Executive Council thereof and on the recommendation of the Environment Protection Authority doth by this Order declare the following to be the State environment protection policy to be observed for the area referred to in the Order and with respect to the elements and segments of the environment referred to in the Order (that is to say) :—

STATE ENVIRONMENT PROTECTION POLICY.
(THE WATERS OF PORT PHILLIP BAY.)

1. This Order may be cited as the State Environment Protection Policy (The Waters of Port Phillip Bay) (hereinafter referred to as the environment protection policy), and shall come into operation upon publication in the *Government Gazette*.

2. In this Order, unless inconsistent with the context or subject matter :

"The Act" means the *Environment Protection Act 1970* (No. 8056).

"The Authority" means the Environment Protection Authority constituted under the Act.

"Beneficial Use" means a use of the environment or any element or segment of the environment that is conducive to public benefit, welfare, safety, or health and which requires protection from the effects of waste discharges, emissions and deposits.

"Delegated Agency" means a protection agency to which the Authority has delegated powers or functions with respect to the issue and enforcement of licences under the Act.

"Licence" means a licence issued by the Authority or a delegated agency under the provisions of the Act authorising a person to discharge, emit, or deposit wastes into the environment.

"Segment" in relation to the environment means any portion or portions of the environment expressed in terms of volume, space, area, quantity, quality or time or any combination thereof.

"Waste" includes any matter prescribed under the Act to be waste and any matter, whether liquid, solid, gaseous, or radioactive, which is discharged, emitted, or deposited in the environment in such volume, constituency or manner as to cause an alteration of the environment.

"Waters" means any waters in the environment and includes river, stream, reservoir, tank, billabong, creek, anabranch, canal, drain, spring, swamp, channel, lake, lagoon, natural or artificial water course, dam, tidal waters, or coastal waters and includes underground or artesian water.

The provisions of this policy shall have no application to necessary dredging carried out by or under the control of the Ports and Harbors Division of the Public Works Department, the Melbourne Harbor Trust Commissioners or the Geelong Harbor Trust Commissioners.

3. The element of the Port Phillip Bay environment to which this environment protection policy applies is water.

BOUNDARIES OF AREA AFFECTED.

4. This environment protection policy shall be observed with respect to the whole of the waters of Port Phillip Bay bounded by the high water mark, a line drawn between Point Lonsdale and Point Nepean, and latitude 37° 50' 30"S. where the parallel crosses the Yarra River Mouth, as delineated by Schedule A.

5. For the purpose of this environment protection policy, the following areas as delineated by the boundaries on Schedule A shall be classified as segments of the environment according to the beneficial uses to be protected.

- (a) *Central Segment*—that portion of the central waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line with its origin at the co-ordinate, longitude 144° 55' 00"E. and latitude 37° 53' 00"S. and following along the meridian of longitude due south to its intersection with the 10 metre depth contour and thence along the contour to its intersection with 38° 20' 00"S. where the line follows the shortest path across the South Channel of navigation to join the 10 metre depth contour on the western side of the channel, and thence the line follows along the contour in generally a westerly and northerly direction to longitude 144° 38' 30"E. where the line turns due north along that meridian of longitude to where it intersects the 10 metre depth contour and follows this contour along a generally northerly and easterly direction to the originating co-ordinate, longitude 144° 55' 00"E. and latitude 37° 53' 00"S.
- (b) *Exchange Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line drawn from the high water mark at Point Lonsdale to the high water mark at Point Nepean and following the high water mark in an easterly direction to a point where it intersects latitude 38° 20' 00"S. and then follows that parallel of latitude to a point where it intersects the 10 metre depth contour on the eastern side of the South Channel of navigation and thence the line turns and follows in a westerly direction the shortest distance from the intersection to the 10 metre contour on the western side of the South Channel of navigation and thence following the 10 metre depth contour in generally a northerly and westerly direction to where the line intersects the longitude 144° 38' 30"E. and thence the line turns due south along that meridian of longitude to the high water mark and follows the high water mark in a generally southerly direction to the point of origin at the high water mark at Point Lonsdale.
- (c) *North-eastern Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line drawn in a westerly direction along latitude 37° 53' 00"S. from the high water mark at Point Ormond to where that parallel of latitude intersects longitude 144° 55' 00"E. and thence turns due south along that meridian of longitude to where it intersects the 10 metre depth contour and thence follows that contour generally south to that point where the line turns south-east across the shortest distance from the 10 metre contour to the high water mark at Schnapper Point and thence the line follows the high water mark generally north to its origin at the intersection of the high water mark and latitude 37° 53' 00"S.
- (d) *South-eastern Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line with its origin at the point where the parallel of latitude 38° 20' 00"S. intersects the high water mark near Sorrento and follows the parallel of latitude to its intersection with the 10 metre depth contour on the eastern side of the South Channel of navigation and thence follows along the 10 metre contour in a northerly direction to a point where the line follows the shortest path from the contour to the high water mark at Schnapper Point and thence the line follows the contour in a generally southerly direction to its origin at latitude 38° 20' 00"S.
- (e) *Corio Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, lying west of a line drawn between Point Henry and Point Lillias and bounded by the high water mark.
- (f) *Hobsons Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line drawn along latitude 37° 53' 00"S. from the high water mark at Point Ormond to a point where it turns due north along the shortest distance from the parallel to the high water mark at Point Gellibrand and thence follows the high water mark in generally a northerly direction to where it intersects latitude 37° 50' 30"S. and follows the parallel across the Yarra mouth due east to the high water mark on the eastern bank where the line turns generally south and follows the high water mark to where it intersects at the origin at latitude 37° 53' 00"S.
- (g) *Altona Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line which spans the shortest distance due south between Point Gellibrand and latitude 37° 53' 00"S. and thence turning in generally a westerly direction where it follows the 10 metre depth contour to a point where the line turns north-west along the shortest distance between the contour and the point where longitude 144° 44' 30"E. and the high water mark intersect and thence the line follows from this point along the high water mark in generally a northerly direction to the origin at the high water mark at Point Gellibrand.
- (h) *Werribee Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line which spans the shortest distance between its origin at the point of intersection of the high water mark and longitude 144° 44' 30"E. and the 10 metre depth contour to the south-east where the line turns generally south-west following the contour to its intersection with longitude 144° 38' 30"E. and from this point the line follows the shortest distance to the high water mark at Point Wilson and thence it turns in generally a northerly direction following along the high water mark to the origin at the intersection of longitude 144° 44' 30"E.
- (i) *Geelong Segment*—that portion of the waters of Port Phillip Bay, as delineated on Schedule A, bounded by a line with its origin at the high water mark at Point Henry and which spans the shortest distance northward to the high water mark at Point Lillias and thence the line turns generally easterly following the high water mark at Point Wilson and thence across the shortest distance from the high water mark at Point Wilson to the point marked by the northernmost intersection of longitude 144° 38' 30"E. and the 10 metre depth contour from which point the line turns due south along the meridian of longitude 144° 38' 30"E., to the high water mark where the line follows in generally a westerly direction the high water mark to the origin at Point Henry.

FACTORS INFLUENCING THIS ENVIRONMENT PROTECTION POLICY.

6. The major factors influencing this environment protection policy are :

- (a) The waters of Port Phillip Bay are a unique aesthetic recreational and economic resource of great significance to the people of Victoria.

- (b) The waters of Port Phillip Bay are potentially capable of supporting multiple and diverse beneficial uses, each of which requires protection from the effects of uncontrolled waste discharges, and the achievement and maintenance of suitable water quality objectives for its protection and enhancement.
- (c) The principal existing beneficial uses of the waters of Port Phillip Bay are aesthetic enjoyment and recreation, the maintenance and preservation of natural aquatic ecosystems, the harvest of fish and shellfish, industrial water supply including the production of salt, and as a shipping channel for the ports of Melbourne and Geelong.
- (d) The beneficial uses of the waters of Port Phillip Bay are being adversely affected by waste discharges from ships and from land within the bay catchment, including sullage and septic tank effluents, inadequately treated sewage and industrial effluents, agricultural operations, urban and rural storm-water run-off, and the dumping of litter. The beneficial uses are also being adversely affected by turbidity and siltation of the Bay due to surface soil erosion within the Bay catchments—the material originating from engineering works and building construction, unmade roads and hard surfaced areas, and removal of vegetation.

BENEFICIAL USES TO BE PROTECTED.

7. The following beneficial uses shall be protected with respect to the water quality of the Central Segment :—
 - (a) Maintenance and Preservation of Natural Aquatic Ecosystems and Wildlife.
 - (b) Production of Fish, Crustacea and Shellfish for Human Consumption.
 - (c) Aesthetic Enjoyment.
 - (d) Boating, Fishing and other Secondary Contact Recreation.
 - (e) Bathing, Diving, Water-skiing and other Primary Contact Recreation.
 - (f) Navigation and Shipping.
8. The following beneficial uses shall be protected with respect to the water quality of the Exchange Segment :—
 - (a) Maintenance and Preservation of Natural Aquatic Ecosystems and Wildlife.
 - (b) Maintenance and Preservation of Foreshores, Littoral Zones and their Vegetation.
 - (c) Production of Fish, Crustacea and Shellfish for Human Consumption.
 - (d) Aesthetic Enjoyment.
 - (e) Bathing, Diving, Water-skiing and other Primary Contact Recreation.
 - (f) Boating, Fishing, Wading and other Secondary Contact Recreation.
 - (g) Navigation and Shipping.
 - (h) Industrial Water Supply.
 - (i) Supply of Flushing Water for Port Phillip Bay.
9. The following beneficial uses shall be protected with respect to the water quality of the Geelong Segment, and the Altona Segment :—
 - (a) Maintenance and Preservation of Natural Aquatic Ecosystems and Wildlife.
 - (b) Maintenance and Preservation of Foreshores, Littoral Zones and their Vegetation.
 - (c) Production of Fish and Crustacea for Human Consumption.
 - (d) Aesthetic Enjoyment.
 - (e) Bathing, Diving, Water-skiing and other Primary Contact Recreation.
 - (f) Boating, Fishing, Wading and other Secondary Contact Recreation.
 - (g) Navigation and Shipping.
 - (h) Industrial Water Supply and Supply of Waters for the Production of Salt.
10. The following beneficial uses shall be protected with respect to the water quality of the North-eastern Segment and the South-eastern Segment :—
 - (a) Maintenance and Preservation of Natural Aquatic Ecosystems and Wildlife.
 - (b) Maintenance and Preservation of Foreshores, Littoral Zones and their Vegetation.
 - (c) Production of Fish and Crustacea for Human Consumption.
 - (d) Aesthetic Enjoyment.
 - (e) Bathing, Diving, Water-skiing and other Primary Contact Recreation.
 - (f) Boating, Fishing, Wading and other Secondary Contact Recreation.
 - (g) Navigation and Shipping.
 - (h) Industrial Water Supply.
11. The following beneficial uses shall be protected with respect to the water quality of the Hobsons Segment and Corio Segment :—
 - (a) Maintenance and Preservation of Natural Aquatic Ecosystems and Wildlife.
 - (b) Maintenance and Preservation of Foreshores, Littoral Zones and their Vegetation.
 - (c) Production of Fish and Crustacea for Human Consumption.
 - (d) Industrial Water Supply for Cooling Waters and the Production of Salt. (Salt Production in Corio Segment only.)
 - (e) Navigation and Shipping.
 - (f) Aesthetic Enjoyment.
 - (g) Bathing, Diving, Water-skiing and other Primary Contact Recreation.
 - (h) Boating, Fishing, Wading and other Secondary Contact Recreation.
12. The following beneficial uses shall be protected with respect to the water quality of the Werribee Segment :—
 - (a) Maintenance and Preservation of Aquatic Ecosystems and Wildlife.
 - (b) Maintenance and Preservation of Foreshores, Littoral Zones and their Vegetation.
 - (c) Aesthetic Enjoyment.
 - (d) Boating, Fishing, Wading and other Secondary Contact Recreation.
 - (e) Navigation and Shipping.
 - (f) Industrial Water Supply.

WATER QUALITY INDICATORS AND OBJECTIVES.

13. Unless otherwise specified in this environment protection policy, the water quality indicators and objectives shall apply to all waters at all times in each segment respectively, except in waste discharge mixing zones as designated in licences issued under the Act. The area of mixing zones shall not be so large as to significantly affect any protected beneficial use adversely.
14. The water quality indicators and objectives for the protection of the declared beneficial uses of the Central Segment shall be those prescribed by Schedule B.
15. The water quality indicators and objectives for the protection of the declared beneficial uses of the Exchange Segment shall be those prescribed by Schedule C.
16. The water quality indicators and objectives for the protection of the declared beneficial uses of the North-eastern, Altona and the Geelong Segments shall be those prescribed by Schedule D.

17. The water quality indicators and objectives for the protection of the declared beneficial uses of the South-eastern Segment shall be those prescribed by Schedule E.

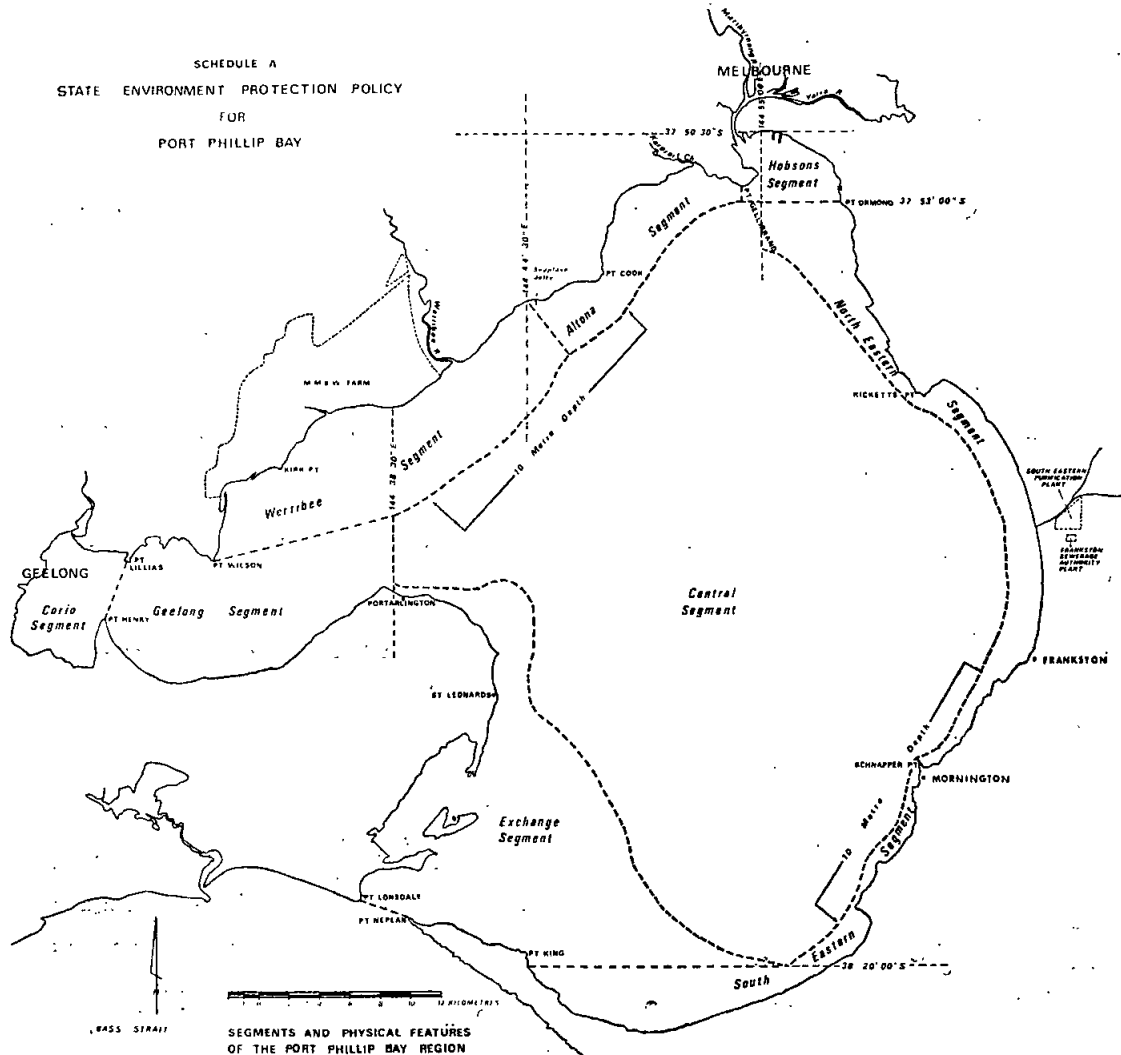
18. The water quality indicators and objectives for the protection of the declared beneficial uses of the Corio Segment and the Hobsons Segment shall be those prescribed by Schedule F.

19. The water quality indicators and objectives for the protection of the declared beneficial uses of the Werribee Segment shall be those prescribed by Schedule G.

ATTAINMENT PROGRAMME.

20. The objectives of this environment protection policy for the protection of the beneficial uses of the waters of Port Phillip Bay shall be achieved and maintained by the following attainment programme :—

- (a) The target date for the full achievement of all objectives of this environment protection policy shall be the 1st of July, 1982 subject to paragraph 20 (c).
- (b) The discharge of wastes to the segment waters described in the environment protection policy and to waters of the Port Phillip Bay catchment shall be controlled in accordance with the licensing provisions and regulations under the Act. In considering any application for the issue of a waste discharge licence under the Act, the Authority or Delegated Agency shall have regard to the effect of the discharge on the declared protected beneficial uses of this environment protection policy, so that the licence and any conditions, restrictions or limitations to which the licence is subject shall be consistent with the objectives of this environment protection policy.
- (c) The limiting time factor for the achievement of the objectives of this environment protection policy will be the time required for the provision of satisfactory sewerage facilities in Port Phillip Bay catchment. To this end, adequate finance should be allocated as soon as practicable towards works for the extension of sewerage reticulation to all unsewered urban areas within the catchment, the connection of premises in seweraged areas to the sewerage reticulation system, and the improvement of sewage treatment plants so that their waste discharges are consistent with the objectives of this environment protection policy.
- (d) The Authority in co-operation with other public and private bodies shall implement a monitoring programme of the waste inputs to and waters of Port Phillip Bay for the stated water quality indicators in order to assess progress towards the objectives of this environment protection policy, and may cause the results of such monitoring to be published from time to time.
- (e) Further surveys, investigations and research projects shall be undertaken as required to assist in the achievement of the objectives of this environment protection policy.
- (f) Long-range planning and public education in water quality management, waste disposal and pollution control shall be promoted, co-ordinated and carried out by the Authority towards the achievement of the objectives of this environment protection policy.
- (g) The Authority in co-operation with its Delegated Agencies shall implement a surveillance programme to deter offences against the Act, and to ensure compliance with the objectives of this environment protection policy.



SCHEDULE B.
WATER QUALITY INDICATORS AND OBJECTIVES FOR WATERS OF THE CENTRAL SEGMENT.

<i>Indicator.</i>	<i>Objective.</i>
1. Dissolved oxygen	Waste discharges shall not cause the concentration of dissolved oxygen in waters of this segment to be less than 90 per cent. of saturation or 6 milligrams per litre, whichever is the higher.
2. Bacteria	Waste discharges shall not cause the total coliform median MPN (Most Probable Number) in waters of this segment to exceed 70 per 100 ml., based on not less than 5 water samples taken within a 42-day period, and nor shall more than 20 per cent. of samples so taken exceed a total coliform median MPN of 230 per 100 ml. for a 5-tube decimal dilution test.
3. pH.. .. .	Waste discharges shall not cause the normal pH range in waters of this segment to be extended by more than ± 0.1 pH units, nor cause such range to be outside the limits of 7.8 to 8.5 at any time.
4. Temperature	Thermal discharges of any artificial origin shall not cause the temperature of waters of this segment to vary more than one degree Celsius below natural daily minimum and above natural daily maximum temperatures.
5. Salinity	Waste discharges shall not cause permanent changes of more than 0.25 of the standard deviation from baseline data of the naturally occurring annual variation of salinity in waters of this segment.
6. Light Penetration	No changes in turbidity, colour, or other factors arising from waste discharges shall reduce light transmission by more than 10 per cent. of the normal level in this segment. A secchi disc shall be visible to a depth greater than four metres. At no time shall turbidity exceed 5 Formazin Turbidity Units except in bottom and surface layers.
7. Toxicants	Waste discharges shall not cause the level of toxicants in waters of this segment to exceed a level which may produce toxic effects or undesirable physiological responses in humans, plants, fish or other aquatic life, with due regard to biologically cumulative effects in food chains.
(a) Biologically Non-cumulative	Waste discharges shall not cause levels of biologically non-cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level in any one of the following test species : <i>Platycephalus bassensis</i> (sand flathead) <i>Aldrichetta forsteri</i> (yellow-eye mullet) <i>Macrobrachium intermedium</i> (shrimp) <i>Mytilus planulatus</i> (mussel) <i>Skeletonema costatum</i> (alga)
(b) Biologically Cumulative (includes metals, organics, radio-isotopes)	Waste discharges shall not cause levels of biologically cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level for any one of the test species referred to in objective 7 (a).
(c) Toxicant Mixtures	Waste discharges shall not cause the sum of non-cumulative toxic contributions as calculated by the following formula, to exceed 1.0 $\frac{Ca}{Oa} + \frac{Cb}{Ob} + \dots + \frac{Cn}{On} \leq 1$ Where Ca, Cb, Cn = the actual or anticipated concentrations of individual toxicants, and Oa, Ob, On = the maximum concentration of individual toxicants as determined by objective 7 (a) or 7 (b) (as the case requires).
8. Nutrients and Biostimulants	Waste discharges shall not add nutrient substances or other growth stimulants in quantities sufficient to cause excessive or nuisance algal or other plant growth in waters of this segment as determined by standard nutrient assay techniques.
(a) Total Nitrogen as N	Waste discharges shall not cause the concentration of Total Nitrogen as N in the water column to exceed 0.3 milligrams per litre in waters of this segment.
(b) Total Phosphorus as P	Waste discharges shall not cause the concentration of Total Phosphorus as P in the water column to exceed 0.07 milligrams per litre in waters of this segment.
(c) Chlorophyll <i>a</i>	Waste discharges shall not cause the mean concentration of chlorophyll <i>a</i> to exceed 1.5 milligrams per cubic metre in any integrated water column sample from waters of this segment.
9. Aesthetic Appearance	
(a) Odours, Taints and Colours	Waste discharges shall not cause substances producing objectionable odours, taints or colours in waters or edible aquatic organisms of this segment to be present in concentrations detectable by bioassay or organoleptic tests.
(b) Floatable Matter	Waste discharges shall cause no visible floating foam, oil, grease, scum, litter or other objectionable matter in waters of this segment.
10. Settleable Matter	Waste discharges shall cause no bottom deposits or submerged objects which adversely affect bottom living communities, alter the basic geometry of the bay or shipping channels, present any hazard to shipping or diving, or adversely affect any other declared beneficial use of this segment.

SCHEDULE C.
WATER QUALITY INDICATORS AND OBJECTIVES FOR WATERS OF THE EXCHANGE SEGMENT.

<i>Indicator.</i>	<i>Objective.</i>
1. Dissolved Oxygen	Waste discharges shall not cause the concentration of dissolved oxygen in waters of this segment to be less than 90 per cent. of saturation or 6 milligrams per litre, whichever is the higher.
2. Bacteria	Waste discharges shall not cause the total coliform median MPN (Most Probable Number) in waters of this segment to exceed 70 per 100 ml., based on not less than 5 water samples taken within a 42-day period, and nor shall more than 20 per cent. of samples so taken exceed a total coliform median MPN of 230 per 100 ml. for a 5-tube decimal dilution test.
3. pH	Waste discharges shall not cause the normal pH range in waters of this segment to be extended by more than ± 0.1 pH units, nor cause such range to be outside the limits of 7.8 to 8.5 at any time.
4. Temperature	Thermal discharges of any artificial origin shall not cause the temperature of waters of this segment to vary more than 0.5 degrees Celsius below natural daily minimum and above natural daily maximum temperatures.

<i>Indicator.</i>	<i>Objective.</i>
5. Salinity	Waste discharges shall not cause permanent changes of more than 0.25 of the standard deviation from baseline data of the naturally occurring annual variation of salinity in waters of this segment.
6. Light Penetration	No changes in turbidity, colour, or other factors arising from waste discharges shall reduce light transmission by more than 10 per cent. of the normal level in this segment. A secchi disc shall be visible to a depth greater than five metres. At no time shall turbidity exceed 5 Formazin Turbidity Units except in bottom and surface layers.
7. Toxicants	Waste discharges shall not cause the level of toxicants in waters of this segment to exceed the level which may produce toxic effects or undesirable physiological responses in humans, plants, fish or other aquatic life, with due regard to biologically cumulative effects in food chains.
(a) Biologically Non-cumulative	Waste discharges shall not cause levels of biologically non-cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level in any one of the of the following test species : <i>Platycephalus bassensis</i> (sand flathead) <i>Aldrichetta forsteri</i> (yellow-eye mullet) <i>Macrobrachium intermedium</i> (shrimp) <i>Mytilus planulatus</i> (mussel) <i>Skeletonema costatum</i> (alga)
(b) Biologically Cumulative (includes metals, organics, radio-isotopes)	Waste discharges shall not cause levels of biologically cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level for any one of the test species referred to in objective 7 (a).
(c) Toxicant Mixtures	Waste discharges shall not cause the sum of non-cumulative toxic contributions as calculated by the following formula, to exceed 1.0 $\frac{Ca}{Oa} + \frac{Cb}{Ob} + \dots + \frac{Cn}{On} \leq 1$ Where Ca, Cb, Cn = the actual or anticipated concentrations of individual toxicants, and Oa, Ob, On = the maximum concentration of individual toxicants as determined by objective 7 (a) or 7 (b) (as the case requires).
8. Nutrients and Biostimulants	Waste discharges shall not add nutrient substances or other growth stimulants in quantities sufficient to cause excessive or nuisance algal or other plant growth in waters of this segment as determined by standard nutrient assay techniques.
(a) Total Nitrogen as N	Waste discharges shall not cause the concentration of Total Nitrogen as N in the water column to exceed 0.2 milligrams per litre in waters of this segment.
(b) Total Phosphorus as P	Waste discharges shall not cause the concentration of Total Phosphorus as P in the water column to exceed 0.04 milligrams per litre in waters of this segment.
(c) Chlorophyll <i>a</i>	Waste discharges shall not cause the mean concentration of chlorophyll <i>a</i> to exceed 0.5 milligrams per cubic metre in any integrated water column sample taken from waters of this segment.
9. Aesthetic Appearance	
(a) Odours, Taints and Colours	Waste discharges shall not cause substances producing objectionable odours, taints or colours in waters or edible aquatic life of this segment to be present in concentrations detectable by bioassay or organoleptic tests.
(b) Floatable Matter	Waste discharges shall cause no visible floating foam, oil, grease, scum, litter or other objectionable matter in waters of this segment.
10. Settleable Matter	Waste discharges shall cause no bottom deposits or submerged objects which adversely affect bottom living communities, alter the basic geometry of the bay or shipping channels, present any hazard to shipping or diving, or adversely affect any other designated beneficial use of this segment.

SCHEDULE D.

WATER QUALITY INDICATORS AND OBJECTIVES FOR WATERS OF THE NORTH-EASTERN, ALTONA AND GEELONG SEGMENTS.

<i>Indicator.</i>	<i>Objective.</i>
1. Dissolved Oxygen	Waste discharges shall not cause the concentration of dissolved oxygen in waters of these segments to be less than 90 per cent. of saturation or 6 milligrams per litre, whichever is the higher.
2. Bacteria	Waste discharges shall not cause the geometric (log) mean of the number of <i>E. coli</i> organisms in the waters of these segments to exceed 200 organisms per 100 ml., based on not less than 5 water samples taken within a 42-day period, nor shall more than 20 per cent. of the samples so taken within these segments exceed 400 organisms per 100 ml.
3. pH	Waste discharges shall not cause the normal pH range in waters of these segments to be extended by more than ±0.1 pH units, nor cause such range to be outside the limits of 7.8 to 8.5 at any time.
4. Temperature	Thermal discharges of any artificial origin shall not cause the temperature of waters of these segments to vary more than one degree Celsius below natural daily minimum and above natural daily maximum temperatures.
5. Salinity	Waste discharges shall not cause permanent changes of more than 0.25 of the standard deviation from baseline data of the naturally occurring annual variation of salinity in waters of these segments.
6. Light penetration	No changes in turbidity, colour or other factors arising from waste discharges shall reduce light transmission by more than 10 per cent. of the normal level in these segments. A secchi disc shall be visible to a depth of 3 metres except in "Learn-to-swim" areas where a secchi disc shall be visible on the bottom. At no time shall turbidity exceed 20 Formazin Turbidity Units except in bottom and surface layers.
7. Toxicants	Waste discharges shall not cause the level of toxicants in waters of these segments to exceed the level which may produce toxic effects or undesirable physiological responses in humans, plants, fish or other aquatic life, with due regard to biologically cumulative effects in food chains.

- | <i>Indicator.</i> | <i>Objective.</i> |
|---|--|
| (a) Biologically Non-cumulative .. | Waste discharges shall not cause the levels of biologically non-cumulative toxicants in waters of these segments to exceed 0.01 of the incipient lethal level in any one of the following test species :—
<i>Platycephalus bassensis</i> (sand flathead)
<i>Aldrichetta forsteri</i> (yellow-eye mullet)
<i>Macrobrachium intermedium</i> (shrimp)
<i>Mytilus planulatus</i> (mussel)
<i>Skeletonema costatum</i> (alga) |
| (b) Biologically Cumulative (includes metals, organics, radio-isotopes) | Waste discharges shall not cause levels of biologically cumulative toxicants in waters of these segments to exceed 0.01 of the incipient lethal level for any one of the test species referred to in objective 7 (a). |
| (c) Toxicant Mixtures .. | Waste discharges shall not cause the sum of non-cumulative toxic contributions as calculated by the following formula, to exceed 1.0
$\frac{Ca}{Oa} + \frac{Cb}{Ob} + \dots + \frac{Cn}{On} \leq 1$ Where Ca, Cb, Cn = the actual or anticipated concentrations of individual toxicants, and Oa, Ob, On = the maximum concentration of individual toxicants as determined by objective 7 (a) or 7 (b) (as the case requires). |
| 8. Nutrients and Biostimulants .. | Waste discharges shall not add nutrient substances or other growth stimulants in quantities sufficient to cause excessive or nuisance algal or other plant growth in waters of these segments as determined by standard nutrient assay techniques. |
| (a) Total Nitrogen as N .. | Waste discharges shall not cause the concentration of Total Nitrogen as N in the water column to exceed 0.35 milligrams per litre in waters of these segments. |
| (b) Total Phosphorus as P .. | Waste discharges shall not cause the concentration of Total Phosphorus as P in the water column to exceed 0.08 milligrams per litre in waters of these segments. |
| (c) Chlorophyll <i>a</i> .. | Waste discharges shall not cause the mean concentration of Chlorophyll <i>a</i> to exceed the following values in any integrated water column sample taken from waters of each segment respectively. |

Segments.	Mean Concentrations in Milligrams per cubic metre.			
	Winter.	Spring.	Summer.	Autumn.
North-eastern	1.5	1.5	1.5	2.0
Altona	2.0	1.5	1.5	1.5
Geelong	2.0	1.5	1.5	1.5

9. Aesthetic appearance
- (a) Odours, Taints and Colours .. Waste discharges shall not cause substances producing objectionable odours, taints or colours in waters or edible aquatic life of these segments to be present in concentrations detectable by bioassay or organoleptic tests.
- (b) Floatable Matter .. Waste discharges shall cause no visible floating foam, oil, grease, scum, litter or other objectionable matter in waters of these segments.
10. Settleable Matter .. Waste discharges shall cause no bottom deposits or submerged objects which adversely affect bottom living communities, alter the basic geometry of the bay or shipping channels, present any hazard to shipping or diving, or adversely affect any other designated beneficial use of these segments.

SCHEDULE E.

WATER QUALITY INDICATORS AND OBJECTIVES FOR WATERS OF THE SOUTH-EASTERN SEGMENT.

- | <i>Indicator.</i> | <i>Objective.</i> |
|------------------------------------|--|
| 1. Dissolved Oxygen .. | Waste discharges shall not cause the concentration of dissolved oxygen in waters of this segment to be less than 90 per cent. of saturation or 6 milligrams per litre, whichever is the higher. |
| 2. Bacteria .. | Waste discharges shall not cause the geometric (log) mean of the number of <i>E. coli</i> organisms in the waters of this segment to exceed 200 organisms per 100 ml., based on not less than 5 water samples taken within a 42-day period, nor shall more than 20 per cent. of the samples so taken within this segment exceed 400 organisms per 100 ml. |
| 3. pH .. | Waste discharges shall not cause the normal pH range in waters of this segment to be extended by more than ±0.1 pH units, nor cause such range to be outside the limits of 7.8 to 8.5 at any time. |
| 4. Temperature .. | Thermal discharges of any artificial origin shall not cause the temperature of waters of this segment to vary more than one degree Celsius below natural daily minimum and natural daily maximum temperatures. |
| 5. Salinity .. | Waste discharges shall not cause permanent changes of more than 0.25 of the standard deviation from baseline data of the naturally occurring annual variation of salinity in waters of this segment. |
| 6. Light Penetration .. | No changes in turbidity, colour, or other factors arising from waste discharges shall reduce light transmission by more than 10 per cent. of the normal level in this segment. A secchi disc shall be visible to a depth of 3 metres except in "Learn-to-swim" areas where a secchi disc shall be visible on the bottom. At no time shall turbidity exceed 20 Formazin Turbidity Units except in bottom and surface layers. |
| 7. Toxicants .. | Waste discharges shall not cause the level of toxicants in waters of this segment to exceed the level which may produce toxic effects or undesirable physiological responses in humans, plants, fish or other aquatic life, with due regard to biologically cumulative effects in food chains. |
| (a) Biologically Non-cumulative .. | Waste discharges shall not cause levels of biologically non-cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level in any one of the following test species :
<i>Platycephalus bassensis</i> (sand flathead)
<i>Aldrichetta forsteri</i> (yellow-eye mullet)
<i>Macrobrachium intermedium</i> (shrimp)
<i>Mytilus planulatus</i> (mussel)
<i>Skeletonema costatum</i> (alga) |

<i>Indicator.</i>	<i>Objective.</i>
(b) Biologically cumulative (includes metals, organics, radio-isotopes)	Waste discharges shall not cause levels of biologically cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level for any one of the test species referred to in objective 7 (a).
(c) Toxicant Mixtures	Waste discharges shall not cause the sum of non-cumulative toxic contributions as calculated by the following formula, to exceed 1.0 $\frac{Ca}{Oa} + \frac{Cb}{Ob} + \dots + \frac{Cn}{On} \leq 1$ Where Ca, Cb, Cn = the actual or anticipated concentrations of individual toxicants, and Oa, Ob, On = the maximum concentration of individual toxicants as determined by objective 7 (a) or 7 (b) (as the case requires).
8. Nutrients and Biostimulants	Waste discharges shall not add nutrient substances or other growth stimulants in quantities sufficient to cause excessive or nuisance algal or other plant growth in waters of this segment as determined by standard nutrient assay techniques.
(a) Total Nitrogen as N	Waste discharges shall not cause the concentration of Total Nitrogen as N in the water column to exceed 0.25 milligrams per litre in waters of this segment.
(b) Total Phosphorus as P	Waste discharges shall not cause the concentration of Total Phosphorus as P in the water column to exceed 0.06 milligrams per litre in waters of this segment.
(c) Chlorophyll a	Waste discharges shall not cause the mean concentration of chlorophyll a to exceed the following values in any integrated water column sample taken from waters of this segment.

Mean Concentration in Milligrams per cubic metre.

Winter.	Spring.	Summer.	Autumn.
1.0	1.5	1.0	1.5

9. Aesthetic Appearance	
(a) Odours, Taints and Colours	Waste discharges shall not cause substances producing objectionable odours, taints or colours in waters or edible aquatic life of this segment to be present in concentrations detectable by bioassay or organoleptic tests.
(b) Floatable Matter	Waste discharges shall cause no visible floating foam, oil, grease, scum, litter or other objectionable matter in waters of this segment.
10. Settlicable Matter	Waste discharges shall cause no bottom deposits or submerged objects which adversely affect bottom living communities, alter the basic geometry of the bay or shipping channels, present any hazard to shipping or diving, or adversely affect any other designated beneficial use of this segment.

SCHEDULE F.

WATER QUALITY INDICATORS AND OBJECTIVES FOR WATERS OF THE CORIO AND HOBSONS SEGMENTS

<i>Indicator.</i>	<i>Objective.</i>
1. Dissolved Oxygen	Waste discharges shall not cause the concentration of dissolved oxygen in waters of these segments to be less than 90 per cent. of saturation or 6 milligrams per litre, whichever is the higher.
2. Bacteria	Waste discharges shall not cause the geometric (log) mean of the number of E. coli organisms in the waters of these segments to exceed 200 organisms per 100 ml., based on not less than 5 water samples taken within a 42-day period, nor shall more than 20 per cent. of the samples so taken exceed 400 organisms per 100 ml.
3. pH	Waste discharges shall not cause the normal pH range in waters of these segments to be extended by more than ±0.1 pH units, nor cause such range to be outside the limits of 7.8 to 8.5 at any time.
4. Temperature.	Thermal discharges of any artificial origin shall not cause the temperature of waters of this segment to vary more than two degrees Celsius below natural daily minimum and above natural daily maximum temperatures.
5. Salinity	Waste discharges shall not cause permanent changes of more than 0.25 of the standard deviation from baseline data of the naturally occurring variation of salinity in waters of these segments.
6. Light Penetration	No changes in turbidity, colour, or other factors arising from waste discharges shall reduce light transmission by more than 10 per cent. of the normal level in these segments. A secchi disc shall be visible to a depth of 2 metres except in "Learn-to-swim" areas where a secchi disc shall be visible on the bottom. At no time shall turbidity exceed 20 Formazin Turbidity Units except in bottom and surface layers.
7. Toxicants	Waste discharges shall not cause the level of toxicants in waters of these segments to exceed the level which may produce toxic effects or undesirable physiological responses in humans, plants, fish or other aquatic life, with due regard to biologically cumulative effects in food chains.
(a) Biologically Non-cumulative	Waste discharges shall not cause levels of biologically non-cumulative toxicants in waters of these segments to exceed 0.01 of the incipient lethal level in any one of the following test species: <i>Platycephalus bassensis</i> (sand flathead) <i>Aldrichetta forsteri</i> (yellow-eye mullet) <i>Macrobrachium intermedium</i> (shrimp) <i>Mytilus planulatus</i> (mussel) <i>Skeletonoma costatum</i> (alga)
(b) Biologically Cumulative (includes metals, organics, radio-isotopes)	Waste discharges shall not cause levels of biologically cumulative toxicants in waters of these segments to exceed 0.01 of the incipient lethal level for any one of the test species referred to in objective 7 (a).
(c) Toxicant Mixtures	Waste discharges shall not cause the sum of non-cumulative toxic contributions as calculated by the following formula, to exceed 1.0 $\frac{Ca}{Oa} + \frac{Cb}{Ob} + \dots + \frac{Cn}{On} \leq 1$ Where Ca, Cb, Cn = the actual or anticipated concentrations of individual toxicants, and Oa, Ob, On = the maximum concentration of individual toxicants as determined by objective 7 (a) or 7 (b) (as the case requires).

- Indicator.*
8. Nutrients and Biostimulants Waste discharges shall not add nutrient substances or other growth stimulants in quantities sufficient to cause excessive or nuisance algal or other plant growth in waters of these segments as determined by standard nutrient assay techniques.
- (a) Total Nitrogen as N Waste discharges shall not cause the concentration of Total Nitrogen as N in the water column to exceed 0.4 milligrams per litre in waters of these segments.
- (b) Total Phosphorus as P Waste discharges shall not cause the concentration of Total Phosphorus as P in the water column to exceed 0.09 milligrams per litre in waters of these segments.
- (c) Chlorophyll *a* Waste discharges shall not cause the mean concentration of chlorophyll *a* to exceed the following values in any integrated water column sample taken from waters of these segments.

Objective.

Segment	Mean Concentration in Milligrams per cubic metre.			
	Winter.	Spring.	Summer.	Autumn.
Hobsons	2.0	2.0	1.5	2.0
Corio	1.0	2.0	1.5	2.0

9. Aesthetic Appearance
- (a) Odours, Taints and Colours Waste discharges shall not cause substances producing objectionable odours, taints or colours in waters or edible aquatic life of these segments to be present in concentrations detectable by bioassay or organoleptic tests.
- (b) Floatable Matter Waste discharges shall cause no visible floating foam, oil, grease, scum, litter or other objectionable matter in waters of these segments.
10. Settleable Matter Waste discharges shall cause no bottom deposits or submerged objects which adversely affect bottom living communities, alter the basic geometry of the bay or shipping channels, present any hazard to shipping or diving, or adversely affect any other designated beneficial use of these segments.

SCHEDULE G.

WATER QUALITY INDICATORS AND OBJECTIVES FOR WATERS OF THE WERRIBEE SEGMENT.

- Indicator.*
1. Dissolved Oxygen Waste discharges shall not cause the concentration of dissolved oxygen in waters of this segment to be less than 90 per cent. of saturation or 6 milligrams per litre, whichever is the higher.
2. Bacteria Waste discharges shall not cause the geometric (log) mean of the number of *E. coli* organisms in the waters of this segment to exceed 1,000 organisms per 100 ml., based on not less than 5 water samples taken within a 42-day period, nor shall more than 20 per cent. of the samples so taken exceed 2,000 organisms per 100 ml.
3. pH Waste discharges shall not cause the normal pH range in waters of this segment to be extended by more than ± 0.1 pH units, nor cause such range to be outside the limits of 7.8 to 8.5 at any time.
4. Temperature Thermal discharges of any artificial origin shall not cause the temperature of waters of this segment to vary more than two degrees Celsius below natural daily minimum and above natural daily maximum temperatures.
5. Salinity Waste discharges shall not cause permanent changes of more than 0.25 of the standard deviation from baseline data of the naturally occurring variation of salinity in waters of this segment.
6. Light Penetration No changes in turbidity, colour, or other factors arising from waste discharges shall reduce light transmission by more than 10 per cent. of the normal level in this segment. A secchi disc shall be visible to a depth of 2 metres or the bottom whichever is the shallower. At no time shall turbidity exceed 25 Formazin Turbidity Units in this segment.
7. Toxicants Waste discharges shall not cause the level of toxicants in waters of this segment to exceed the level which may produce toxic effects or undesirable physiological responses in humans, plants, fish or other aquatic life, with due regard to biologically cumulative effects in food chains.
- (a) Biologically Non-cumulative Waste discharges shall not cause levels of biologically non-cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level in any one of the following test species:—
Platycephalus bassensis (sand flathead)
Aldrichetta forsteri (yellow-eye mullet)
Macrobrachium intermedium (shrimp)
Mytilus planulatus (mussel)
Skeletonoma costatum (alga)
- (b) Biologically Cumulative (includes metals, organics, radio-isotopes) Waste discharges shall not cause levels of biologically cumulative toxicants in waters of this segment to exceed 0.01 of the incipient lethal level for any one of the test species referred to in objective 7 (a).
- (c) Toxicant Mixtures Waste discharges shall not cause the sum of non-cumulative toxic contributions as calculated by the following formula, to exceed 1.0
- $$\frac{Ca}{Oa} + \frac{Cb}{Ob} + \dots + \frac{Cn}{On} \leq 1$$
- Where Ca, Cb, Cn = the actual or anticipated concentrations of individual toxicants, and Oa, Ob, On = the maximum concentration of individual toxicants as determined by objective 7 (a) or 7 (b) (as the case requires).
8. Nutrients and Biostimulants Waste discharges shall not add nutrient substances or other growth stimulants in quantities sufficient to cause excessive or nuisance algal or other plant growth in waters of this segment as determined by standard nutrient assay techniques.
- (a) Total Nitrogen as N Waste discharges shall not cause the concentration of Total Nitrogen as N in the water column to exceed 0.5 milligrams per litre in waters of this segment.
- (b) Total Phosphorus as P Waste discharges shall not cause the concentration of Total Phosphorus as P in the water column to exceed 0.1 milligrams per litre in waters of this segment.
- (c) Chlorophyll *a* Waste discharges shall not cause the mean concentration of chlorophyll *a* to exceed 1.5 milligrams per cubic metre in any integrated water column sample taken from waters of this segment.

9. Aesthetic Appearance

- (a) Odours, Taints and Colours Waste discharges shall not cause substances producing objectionable odours, taints or colours in waters or edible aquatic life of this segment to be present in concentrations detectable by bioassay or organoleptic tests.
- (b) Floatable Matter Waste discharges shall cause no visible floating foam, oil, grease, scum, litter or other objectionable matter in waters of this segment.

10. Settleable Matter

Waste discharges shall cause no bottom deposits or submerged objects which adversely affect bottom living communities, alter the basic geometry of the bay, or shipping channels, present any hazard to shipping or diving, or adversely affect any other designated beneficial use of this segment.

And the Honorable William Archibald Borthwick, Her Majesty's Minister for Conservation for the State of Victoria, shall give the necessary directions herein accordingly.

TOM FORRISTAL,
Clerk of the Executive Council.