



DRAFT State Environmental (Cockburn Sound) Policy 2013

Environmental Protection Authority
Perth, Western Australia

November 2013

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1 Preamble

The Government of Western Australia –

- (a) recognises that Cockburn Sound, situated within Perth's coastal waters, is highly valued by the community for its ecological, economic and recreational attributes;
- (b) is conscious of the need to protect the intrinsic value of biological diversity and the ecological, genetic, social, economic, scientific, educational, cultural, recreational, aesthetic, and natural values of biological diversity and its components;
- (c) recognises the importance of not unnecessarily restricting public access to the foreshore and waters of Cockburn Sound;
- (d) recognises the importance of Cockburn Sound for activities such as fisheries, aquaculture and tourism which require a high level of marine water quality and for uses such as industry, shipping, harbours and marinas (even though they can lower environmental quality in localised areas), provided that all reasonable and practicable measures are taken to prevent or minimise waste discharge and contamination;
- (e) recognises the Intergovernmental Agreement on the Environment made between the Commonwealth, the States and Territories, and the Australian Local Government Association on 1 May 1992; in particular the four principles of ecologically sustainable development pertaining to management of ecosystems, biodiversity, intergenerational equity, and the precautionary principle;
- (f) recognises that all the uses of Cockburn Sound and its catchment, as they affect Cockburn Sound, need to be managed in accordance with the above-mentioned principles of ecologically sustainable development;
- (g) recognises the policy's linkages with other Commonwealth and State legislation, policies, strategies and action plans concerning cleaner production, best practice, waste minimisation, continuous improvement, risk-based approach and sustainability;
- (h) recognises that the policy strives for best environmental quality throughout Cockburn Sound;
- (i) recognises that events and activities outside the policy area may adversely affect the environmental values established in the policy from time to time; and
- (j) recognises the importance of Cockburn Sound and Naval Waters to the Australian Defence Force and acknowledges the Commonwealth environmental, legislative and policy framework by which it abides.

2 Citation

This policy may be cited as the *State Environmental (Cockburn Sound) Policy 2013*.

3 Purpose of policy

- (1) This policy establishes the basis on which Cockburn Sound and the environment of adjacent land is to be protected.
- (2) The purposes of this policy are –
 - (a) to declare, protect and maintain the environmental values of Cockburn Sound;
 - (b) to abate pollutants and restrict activities that diminish the environmental values of Cockburn Sound;
 - (c) to establish a program to protect and enhance environmental quality to support the environmental values of Cockburn Sound;
 - (d) to establish and give effect to the environmental quality objectives and the environmental quality criteria for Cockburn Sound; and
 - (e) to give effect to the Environmental Management Plan for Cockburn Sound.

4 Definitions

“background level” means the level of an indicator (measured in a manner and at a location specified by the Environmental Protection Authority) in marine waters, sediments or biota, outside the influence of any current or historical discharges containing a measurable level of that indicator;

“biodiversity” means the variety and types of naturally occurring marine life. This encompasses genetic, species and ecosystem levels at the local and regional scale;

“Cockburn Sound Management Council” means the Cockburn Sound Management Council as established under section 25(1) of the *Environmental Protection Act 1986*;

“decision scheme” specifies the framework for assessing monitoring data against the environmental quality criteria in order to determine whether or not a management response is required;

“diffuse source” means multiple non-point sources spread over a wide area;

“environmental management plan” means the Environmental Management Plan referred to in clause 10(1)(a);

“ecological integrity” means the state of an ecosystem being whole and unimpaired, which is usually determined by reference to appropriate ecosystem indicators and criteria;

“ecological value” means the intrinsic natural values of ecosystems which require protection from the effects of pollution, environmental harm, waste discharges and deposits;

“environmental quality criteria” means the numerical values (e.g. cadmium 0.7 µg/L) or narrative statements (e.g. the 95th percentile of the bioavailable contaminant concentration in the test samples should not exceed the environmental quality guideline value) that serve as benchmarks to determine whether a more detailed assessment of environmental quality is required (these criteria are termed environmental quality guidelines), or whether a management response is required (termed environmental quality standards);

“environmental quality guideline” means a numerical value or narrative statement which if met indicates there is a high probability that the associated environmental quality objective identified in clause 7(2) has been achieved;

“environmental quality objective” means a specific management goal for a part of the environment and is either ecologically based by describing the desired level of health of the ecosystem or socially based by describing the environmental quality required to maintain specific human uses;

“environmental quality standard” means a numerical value or narrative statement which if not met indicates a high probability that the associated environmental quality objective identified in 7(2) has not been achieved and a management response is triggered;

“environmental value” means a particular value or use of the marine environment that is important for a healthy ecosystem or for public benefit, welfare, safety or health and which requires protection from the effects of pollution, environmental harm, waste discharges and deposits. Two types of environmental value are considered: ecological value and social value;

“high level of ecological protection” means to allow small changes in the quality of water, sediment or biota (i.e. small changes in contaminant concentrations with no resultant detectable changes beyond natural variation in the diversity of species and biological communities, ecosystem processes and abundance/biomass of marine life);

“licensed premises” means a residential, industrial or other premises of any kind whatsoever (including land, water and equipment), licensed by any regulating agency operating in the policy area;

“low level of ecological protection” means to allow for large changes in the quality of water, sediment and biota (i.e. large changes in contaminant concentrations that could cause large changes beyond natural variation in the natural diversity of species and biological communities, rates of ecosystem processes and abundance/biomass of marine life, but which do not result in bioaccumulation/biomagnification in nearby High ecological protection areas);

“marine environment” means marine waters and underlying sediments and the marine life therein;

“moderate level of ecological protection” means to allow moderate changes in the quality of water, sediment and biota (i.e. moderate changes in contaminant concentrations that could cause small changes beyond natural variation in ecosystem processes and abundance/biomass of marine life, but no detectable changes from the natural diversity of species and biological communities);

“policy area” means the area to which this policy applies, as shown in Schedule 1;

“pollutant” means any matter or thing that could have the potential to alter, directly or indirectly, the environment to the detriment of the environmental values;

“practicable” means reasonably practicable having regard to, among other things, local conditions and circumstances (including costs) and to the current state of technical knowledge;

“protected area” means the marine environment within the policy area;

“protection” means in relation to the environment, conservation, preservation, enhancement and management thereof;

“public authority” means Minister of the Crown acting in his or her official capacity, department of the Government, State agency or instrumentality, local government or other person, whether corporate or not, who or which under the authority of a written law administers or carries on for the benefit of the State, or any district or other part thereof, a social service or public utility;

“relevant public authority” means a public authority with responsibilities within the policy area that are relevant to the maintenance of the environmental values of Cockburn Sound, including but not limited to, those public authorities identified in the Environmental Management Plan as having regulatory and/or management responsibilities, but not including a public authority in the capacity of operating a licensed premise;

“social value” means a particular value or use of the marine environment that is important for public benefit, welfare, safety or health and which requires protection from the effects of pollution, environmental harm, waste discharges and deposits; and

“to discharge” in relation to waste or other matter, means to deposit it or allow it to escape, or cause or permit it to be, or fail to prevent it from being, discharged, deposited or allowed to escape.

5 Application

- (1) The portion of the environment to which this policy applies is the portion of the marine environment and its land catchment that is shown in Schedule 1 as the *policy area*.
- (2) The area declared as a *protected area* under this policy is the portion of marine environment within the policy area.

6 Environmental values

- (1) The environmental values for the protected area under this policy are –
 - (a) Ecosystem health (ecological values);
 - (b) Fishing and aquaculture (social values);
 - (c) Recreation and aesthetics (social values);
 - (d) Cultural and spiritual values (social values); and
 - (e) Industrial water supply (social value).
- (2) The environmental values require protection from the effects of pollution, environmental harm, waste discharges and deposits.
- (3) The protection and maintenance of environmental values is achieved by meeting the environmental quality objectives that are defined for each environmental value.

7 Environmental quality objectives

- (1) Environmental quality objectives are defined for each environmental value identified under clause 6(1).
- (2) The environmental quality objectives identified under this policy are –
 - (a) For ecosystem health:
Maintenance of ecosystem integrity:
The level of ecological protection to be maintained for ecosystem integrity is described in terms of structure (e.g. biodiversity, biomass and abundance of biota) and function (e.g. food chains and nutrient cycles). The ecological

- protection areas are spatially defined in Schedule 3 and are set at one of the three levels, as defined in clause 4:
- (i) High level of ecological protection.
 - (ii) Moderate level of ecological protection.
 - (iii) Low level of ecological protection.
- (b) For fishing and aquaculture:
- (i) *Maintenance of seafood safe for human consumption*, such that seafood is safe for human consumption when collected or grown.
 - (ii) *Maintenance of aquaculture*, such that water is of a suitable quality for aquaculture purposes.
- (c) For recreation and aesthetics:
- (i) *Maintenance of primary contact recreation*, such that primary contact recreation (e.g. swimming) is safe;
 - (ii) *Maintenance of secondary contact recreation*, such that secondary contact recreation (e.g. boating) is safe; and
 - (iii) *Maintenance of aesthetics*, such that the aesthetic values are protected.
- (d) For cultural and spiritual values:
Maintenance of indigenous cultural and spiritual values, such that the cultural and spiritual values of the local indigenous community are protected.
- (e) For industrial water supply:
Maintenance of industrial water supply, such that water is of suitable quality for industrial water supply.
- (3) For ecosystem health, the boundaries between the High, Moderate and Low ecological protection areas of the particular environmental quality objective identified in clause 7(2)(a) at the date of publication of this policy are shown in Schedule 3¹.
- (4) For ecosystem health, Moderate ecological protection areas may be established for waters within ports, harbours or marinas located within the protected area. Water quality within each port, harbour and marina will be assessed individually and the results will not be used to assess the status of broader moderate ecological protection areas². Water quality for each separate moderate ecological protection area will also be assessed individually.
- (5) For ecosystem health, Low ecological protection areas –
- (a) will be located east of the boundary between the High ecological protection area and the Moderate ecological protection area on the eastern side of Cockburn Sound; and
 - (b) will occupy a cumulative water surface area not to exceed five percent of the total water surface area east of the boundary between the High ecological protection area and the Moderate ecological protection area on the eastern side of Cockburn Sound; and
 - (c) may be changed following review by the Environmental Protection Authority or following a Government decision under the *Environmental Protection Act 1986*³.

- (6) The environmental quality objectives identified in clause 7(2)(b-e) apply to High, Moderate and Low ecological protection areas as shown in Schedule 3, except where the Environmental Protection Authority, after public consultation, determines that the pursuit of a particular objective is not reasonably compatible with discharge(s) authorised in that area(s). The extent of any variation will be published.
- (7) Activities and practices within the policy area are to be managed and reasonable and practicable measures are to be taken so that the environmental quality objectives established by this policy are achieved.

8 Environmental quality criteria

- (1) To protect the environmental values and meet the environmental quality objectives established under this policy, environmental quality criteria are established, which comprise numerical values and narrative statements.
- (2) Environmental quality criteria will be the benchmarks against which the level of achievement of the environmental quality objectives identified under clause 7 will be measured.
- (3) The focus for management is to ensure that the environmental quality objectives are achieved by meeting environmental quality guidelines. If an environmental quality guideline is not met then there is uncertainty over whether the associated environmental quality objective has been achieved and a more detailed assessment against an environmental quality standard is triggered as required under clause 9(3).
- (4) The environmental quality criteria –
 - (a) are established in the *Environmental Quality Criteria Reference Document for Cockburn Sound*, Environmental Protection Authority 2013 (as amended and published from time to time by the Environmental Protection Authority following public consultation); and
 - (b) apply to the protected area through the decision schemes shown in Schedules 4 to 7. These are referred to in the table included in Schedule 2.
- (5) The priority for management will be based on assessment of monitoring data from the protected area, such that –
 - (a) if it is determined that no environmental quality guidelines are exceeded, then the environmental quality objectives are considered to be fully met and the environmental values are considered to be protected;
 - (b) if an environmental quality guideline is not met, it will trigger more detailed investigations to determine whether the environmental quality standard has been met; and
 - (c) if an environmental quality standard is not met then the associated environmental quality objective is not achieved, and it will trigger an appropriate management response as required under clause 9(4).

A summary of the environmental values, environmental quality objectives, environmental quality criteria and decision schemes for Cockburn Sound is included in Schedule 2.

9 Application of environmental quality criteria

- (1) The relevant public authority or authorities will –
 - (a) following consultation with the Cockburn Sound Management Council, determine which parameters listed in the environmental quality criteria tables should become a focus of monitoring, further investigation and/or reporting in areas under their jurisdiction;
 - (b) notify the Cockburn Sound Management Council as soon as practicable after becoming aware of a new, or a change in an existing, contaminant input and, following discussion with the Council, determine whether any monitoring programs and investigations as outlined in clause 9(1)(a) are to be amended in order to take the effect of any such change into account;
 - (c) notify the Cockburn Sound Management Council as soon as practicable and no later than by 30 June each year on the activities and outcomes of such monitoring programs and investigations as outlined in clause 9(1)(a);
 - (d) through the Cockburn Sound Management Council, cause the list of parameters and an outline of such monitoring programs to be published, as part of their annual performance report; and
 - (e) in addition to any other statutory requirements, notify the Cockburn Sound Management Council of any identified exceedance of an environmental quality guideline or environmental quality standard as soon as practicable.

- (2) Where the Cockburn Sound Management Council becomes aware of an exceedance of an environmental quality guideline –
 - (a) The Cockburn Sound Management Council will review the information before it and assess whether in relation to the exceedance there is a relevant public authority.
 - (i) Where it identifies that there is a relevant public authority, refer the exceedance of the environmental quality guideline to be investigated and reported by the relevant public authority against the environmental quality criteria, within a timeframe agreed with the Cockburn Sound Management Council.
 - (ii) Where it identifies that there is no relevant public authority, investigate the exceedance as soon as practicable.
 - (iii) Whether a relevant public authority has been identified or not, where the exceedance concerns any of the environmental quality criteria or environmental quality guidelines set out in clause 8(6) and is located in the area identified in Schedule 4, no management response will be initiated for an interim period of five years from adoption of this policy.
 - (b) The Cockburn Sound Management Council will report to the Environmental Protection Authority the results of that investigation as soon as practicable, including any recommendations of the Cockburn Sound Management Council in relation to the maintenance of the environmental quality objectives for Cockburn Sound.
 - (c) The Cockburn Sound Management Council will report the results of the assessment against the environmental quality criteria to the public in relation to the maintenance of the environmental quality objectives for Cockburn Sound no later than six months after completion of the annual monitoring programs.

- (3) Where the Cockburn Sound Management Council becomes aware of an exceedance of an environmental quality standard –

- (a) The Cockburn Sound Management Council will report the exceedance to the Environmental Protection Authority and the Minister for Environment as soon as practicable after it becomes aware of the exceedance.
 - (b) The Cockburn Sound Management Council will review the information before it and identify whether in relation to the exceedance there is a relevant public authority.
 - (i) Where it identifies a relevant public authority, refer the exceedance to the relevant public authority to investigate and implement an appropriate management response that takes into account reasonable and practicable measures, within a timeframe agreed with the Cockburn Sound Management Council.
 - (ii) Where it identifies that there is no relevant public authority, investigate the source and potential management options as soon as practicable and advise the Environmental Protection Authority and the Minister for Environment on the best means of meeting the environmental quality objectives for Cockburn Sound.
 - (c) If the exceedance of an environmental quality standard is assessed to be the result of a discharge.
 - (i) Where the discharge is assessed as being from licensed premises or approved under Part IV of the *Environmental Protection Act 1986*, the management response will be implemented by the licensee or the proponent and the relevant public authority, within a timeframe agreed with those parties and the Cockburn Sound Management Council.
 - (ii) Where the discharge is assessed as being caused by or found to be from one or more diffuse sources, unlicensed premises and/or from other activities, a management response will be coordinated through the Cockburn Sound Management Council.
 - (d) The Cockburn Sound Management Council will report to the Minister for Environment the results of any investigations from 9(3)(b) and advise on the adequacy of management responses in relation to the maintenance of environmental quality objectives for Cockburn Sound as soon as practicable.
 - (e) The Cockburn Sound Management Council will report annually to the public the results of any investigations and management responses in relation to the maintenance of the environmental quality objectives for Cockburn Sound.
- (4) Where the Cockburn Sound Management Council believes that unlicensed activities have caused or contributed to the environmental quality guidelines or environmental quality standards being exceeded, and does not receive cooperation from the party or parties believed to be contributing to the exceedances in addressing the problems, then it shall make recommendations to the Minister for Environment and any relevant public authorities as to what actions should be taken. The Cockburn Sound Management Council may publish these recommendations as provided for in clause 11.
- (5) The environmental quality guidelines and environmental quality standards established by this policy are not intended to be used to identify when pollution has occurred, but are intended as triggers for investigation and management action.
- (6) This policy recognises authorisations within the policy area existing as of the date of publication.

10 Management program to protect

- (1) The protection of the environmental values is to be achieved by the taking of management actions to meet the environmental quality criteria including –
 - (a) implementation of an Environmental Management Plan;
 - (b) public authorities taking decisions and actions that are consistent with the environmental quality objectives referred to in clause 7; and
 - (c) the co-operation of public authorities, industry, other relevant bodies and the general public in the implementation of this policy.

- (2) The management program to protect will consist of the collective actions of public authorities responsible for elements of the framework, and will include the following components -
 - (a) An Environmental Management Plan for the policy area, to be –
 - (i) prepared and coordinated by the Cockburn Sound Management Council;
 - (ii) reviewed as necessary with community consultation; and
 - (iii) endorsed by the Minister for Environment on the advice of the Environmental Protection Authority.

 - (b) The endorsed Environmental Management Plan, which will -
 - (i) incorporate the environmental quality objectives and the environmental quality criteria referred to in clauses 7, 8 and 9;
 - (ii) identify critical areas within the policy area requiring priority protection, or priority remedial action to achieve the environmental quality objectives referred to in clause 7;
 - (iii) foster the integration of environmental planning and management for the land and marine environment within the policy area;
 - (iv) recognise and facilitate multiple use management of the protected area; and
 - (v) identify the agencies or organisations responsible for particular actions recommended under the Environmental Management Plan.

 - (c) The Cockburn Sound Management Council, which will -
 - (i) administer and coordinate the implementation of the Environmental Management Plan, and report on its performance in achieving its stated objectives;
 - (ii) promote the understanding of the Policy and the Environmental Management Plan;
 - (iii) investigate, monitor, review and report on the achievement of environmental objectives, criteria and targets where appropriate in accordance with the Environmental Management Plan and the Policy;
 - (iv) co-ordinate, encourage or undertake research and investigations to support environmental management to meet the objectives of the Environmental Management Plan; and
 - (v) report annually to the Minister for Environment on the implementation of the Environmental Management Plan.

 - (d) Public authorities with management or regulatory responsibilities in the policy area, which will, within their area of jurisdiction –
 - (i) make decisions and actions consistent with the objectives of the policy;
 - (ii) develop best management practices for the control of drainage, sewage, ballast water and the disposal of wastewater and the discharge of

- wastes and nutrients, whether point or diffuse source, and directly or indirectly discharged into the policy area;
- (iii) incorporate into their work programs means of achieving the environmental quality objectives outlined in clause 7, for activities which include but are not limited to diffuse sources of emissions and to licensed premises discharging wastes or nutrients, directly or indirectly, into the policy area;
 - (iv) establish monitoring programs and inventories as appropriate, using the *Manual of Standard Operating Procedures for Environmental Monitoring against the Cockburn Sound Environmental Quality Criteria*, Environmental Protection Authority 2013 (as amended and published from time to time by the Environmental Protection Authority following public consultation); and
 - (v) report the results of monitoring programs to the Cockburn Sound Management Council as soon as practicable and no later than by 30 June each year.

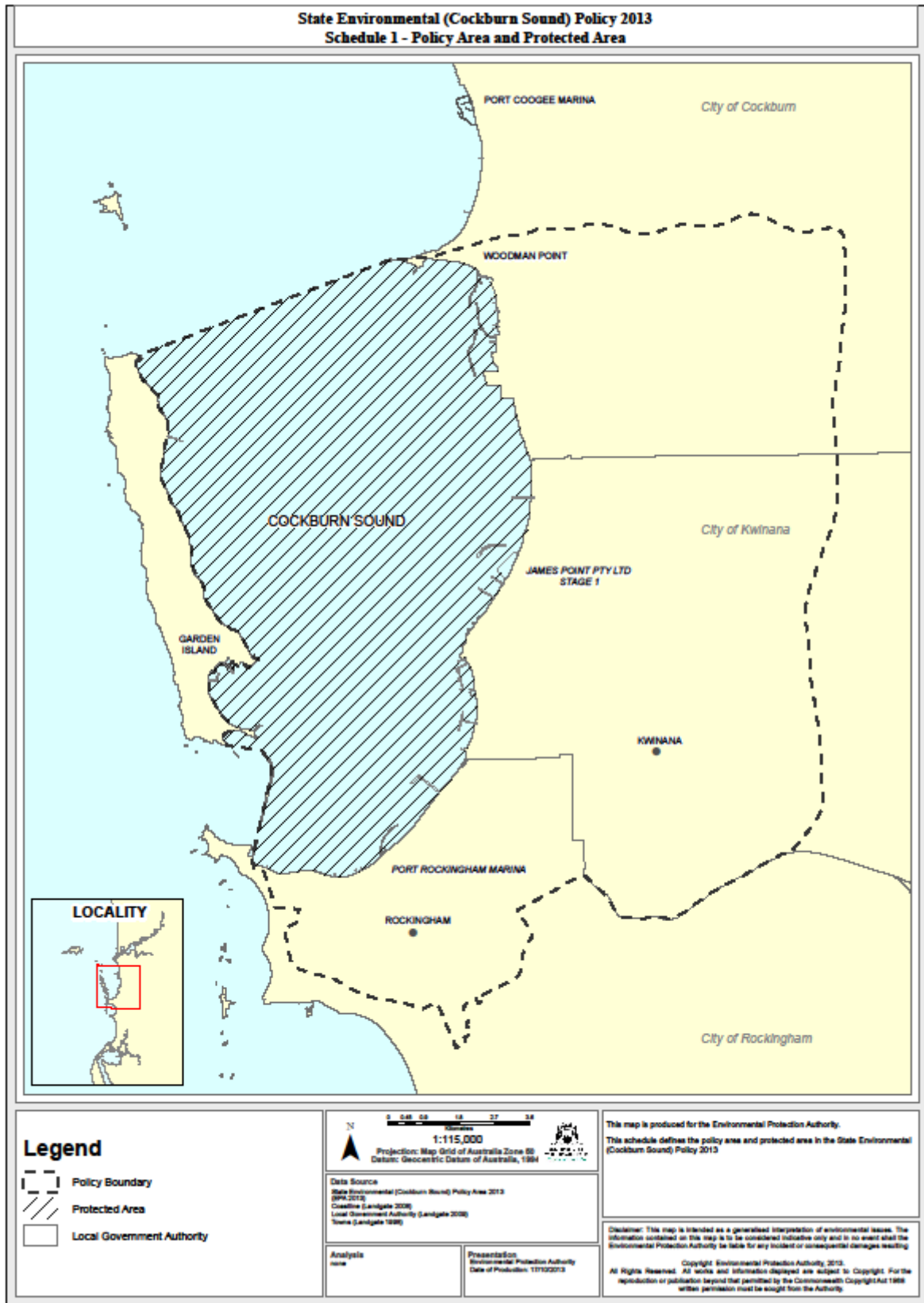
11 State of Cockburn Sound report

- (1) The Cockburn Sound Management Council will, in consultation with the Department of Environment Regulation and the Office of the Environmental Protection Authority, report each year to the Minister for Environment on the State of Cockburn Sound with respect to achievement of the environmental values in clause 6.
- (2) The report will be submitted no later than nine months after completion of the annual monitoring programs. It will include annual performance and monitoring reporting, and a summary of the results of investigations and management responses as provided for in clauses 9 and 10.
- (3) The Minister shall cause the report to be laid on the table of both Houses of Parliament within 10 sitting days of receiving it.

Footnotes

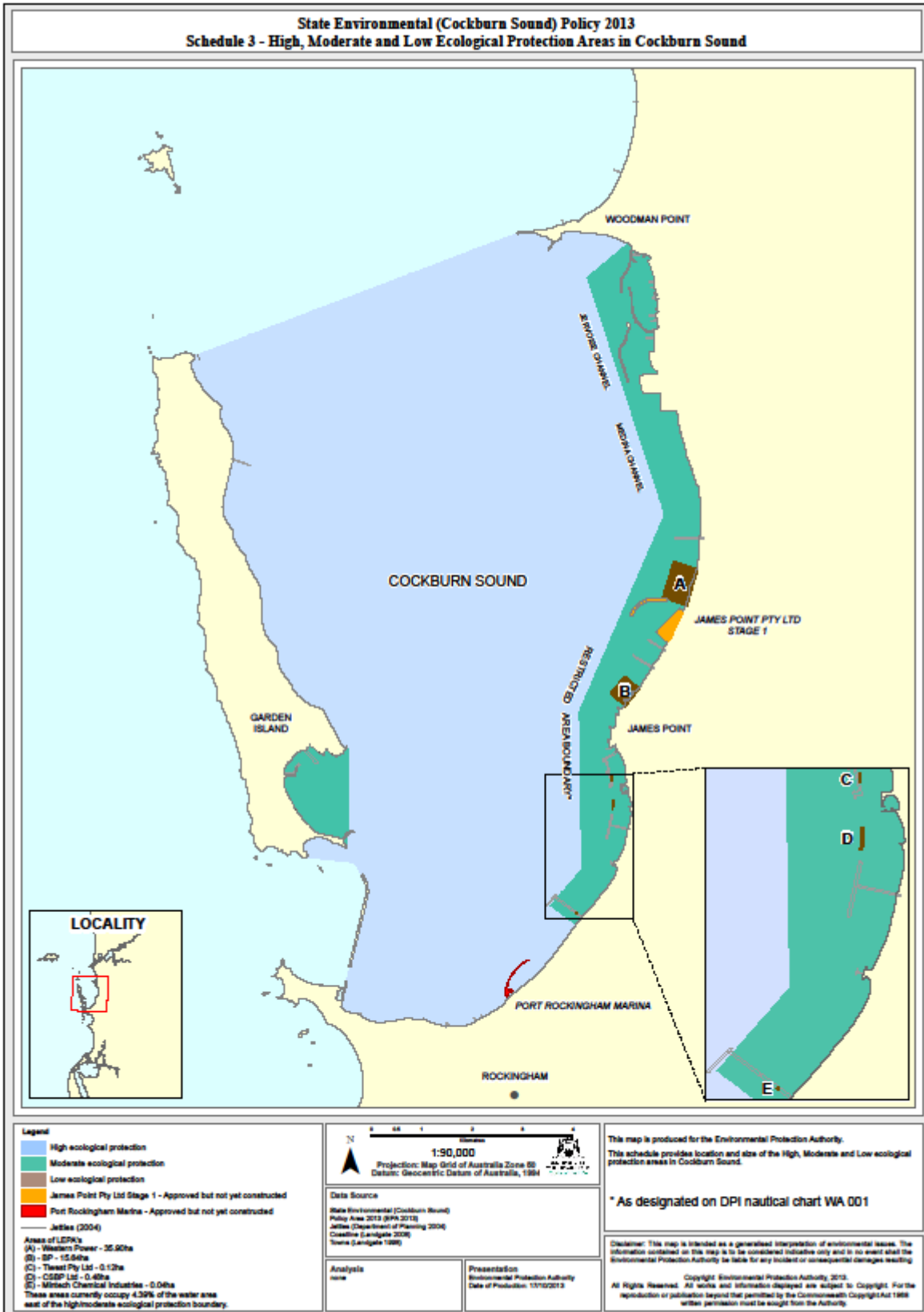
- 1 The Policy acknowledges that proposals for facilities such as ports, harbours and marinas in Cockburn Sound, if and when approved by Government under the *Environmental Protection Act 1986*, may necessitate boundary modifications including to the boundary of the protected area. In this case, boundary modifications do not require a separate Ministerial approval under the *Environmental Protection Act 1986*. Amendments to Schedule 3 will be published separately on the website of the Environmental Protection Authority.
- 2 This Policy acknowledges that the main determinants of water quality in ports, harbours and marinas are (a) the quality of the external waters, (b) the magnitude of direct nutrient and contaminant inputs, and (c) the flushing and mixing rates of the port, harbour or marina (which is largely determined by location and design). If water quality in ports, harbours or marinas is poor (due to inappropriate siting, configuration and design, or inadequate management of nutrient inputs) this is likely to adversely affect the quality of external waters beyond its confines.

Port, harbour and marina proposals should be designed and managed according to best practice, so that the environmental performance of the development does not measurably affect the status of the broader High or Moderate ecological protection area it is adjacent to.
- 3 Changes to Low ecological protection areas are deemed “approved” if made through a Ministerial approval under the *Environmental Protection Act 1986*, and Schedule 3 will be amended accordingly. Amendments to Schedule 3 will be published separately on the website of the Environmental Protection Authority.



Schedule 2 - Summary of Environmental Values, Environmental Quality Objectives, Environmental Quality Criteria and Decision Schemes for Cockburn Sound

Environmental Values	Environmental Quality Objectives and their Descriptions	Environmental Quality Criteria	Decision Scheme
Ecosystem Health (ecological values)	<i>Maintenance of ecosystem integrity</i> Ecosystem integrity is considered in terms of structure (e.g. the biodiversity, biomass and abundance of biota) and function (e.g. food chains and nutrient cycles). Three levels of ecological protection (High, Moderate, and Low) shall apply to different areas of Cockburn Sound.	Table 1: Physical and Chemical Stressors Table 2: Toxicants in water Table 3: Toxicants in sediment Reference to Tables means those contained in the document titled <i>Environmental Quality Criteria Reference Document for Cockburn Sound</i> , Environmental Protection Authority 2013.	Schedule 4
Fishing and Aquaculture (social values)	<i>Maintenance of seafood safe for human consumption</i> Seafood is safe for human consumption when collected or grown in Cockburn Sound. <i>Maintenance of aquaculture</i> Water is of a suitable quality for aquaculture purposes.	Table 4: Seafood safe for human consumption Table 5: Aquaculture	Schedule 5
Recreation and Aesthetics (social values)	<i>Maintenance of primary contact recreation values</i> Primary contact recreation (e.g. swimming) is safe to undertake in Cockburn Sound. <i>Maintenance of secondary contact recreation values</i> Secondary contact recreation (e.g. boating) is safe to undertake in Cockburn Sound. <i>Maintenance of aesthetic values</i> The aesthetic values of Cockburn Sound are protected.	Table 6: Primary contact recreation Table 7: Secondary contact recreation Table 8: Aesthetic quality	Schedule 6
Cultural and Spiritual (social values)	<i>Maintenance of cultural and spiritual values</i> The indigenous cultural and spiritual values of Cockburn Sound are protected.	None	None
Industrial Water Supply (social value)	<i>Maintenance of water quality for desalination plant operation</i> Marine water quality is suitable for intake to the Perth desalination plant.	Table 9: Industrial water supply	Schedule 7



Schedule 3 (continued)

The Low ecological protection areas (LEPAs) are the marine waters within the boundaries of the following coordinates:

(a) Location and water surface area occupied for each currently authorised LEPA

All coordinates in Map Grid of Australia Zone 50 (MGA zone50) Datum: GDA94.

(A) Western Power Kwinana Power Station

The Low ecological protection area is the marine water area within the boundaries defined by the following coordinates:

Easting	Northing
384493.1	6437236.0
384279.3	6436514.7
383793.9	6436679.1
384009.9	6437395.5

This Low ecological protection area also includes existing and approved outfalls from the Perth Desalination Plant, NewGen Kwinana Power Station and Western Power Cockburn 2.

Water surface area = 35.90 ha

(B) BP Refinery (Kwinana) Pty Ltd

The Low ecological protection area is the marine water area within the boundaries defined by the following coordinates:

Easting	Northing
383333.2	6434876.2
383057.4	6434521.0
382758.6	6434775.8
383042.9	6435125.1

Water surface area = 15.64 ha

(C) Tiwest Pty Ltd

The Low ecological protection area is the marine water area within the boundaries defined by the following coordinates:

Easting	Northing
382779.0	6433136.0
382779.0	6433060.0
382795.0	6433060.0
382795.0	6433136.0

OR

The Low ecological protection area is the marine water area located within a horizontal distance of 8 m from the Tiwest effluent discharge diffuser.

Water surface area = 0.12 ha

(D) CSBP Limited

The Low ecological protection area is the marine water area within a horizontal distance of 9 m (to the inshore direction from the diffuser) and 16 m (to the offshore direction from the diffuser), and extending 12.5 m beyond each end of the diffuser.

Water surface area = 0.48 ha

(E) Mintech Chemical Industries (previously Millennium Performance Chemicals (Advance Ceramics) Pty Ltd)

The Low ecological protection area is the marine water area within the boundaries defined by the following coordinates:

Easting	Northing
382082.0	6430412.9
382065.9	6430425.0
382078.0	6430440.9
382093.9	6430429.0

Water surface area = 0.04 ha

(b) Cumulative water surface area occupied by all currently authorised LEPAs, relative to the total water surface area east of the boundary between the High ecological protection area and the Moderate ecological protection area on the eastern side of Cockburn Sound, expressed as a percentage.

Cumulative water surface area of currently authorised LEPAs
= 52.18 ha (*Area A*)

Total water surface area east of the boundary between the High ecological protection area and the Moderate ecological protection area on the eastern side of Cockburn Sound
= 1189.62 ha (*Area B*)

Percentage of *Area A* relative to *Area B* = 4.39 %

Schedule 4

Decision scheme	4.1:	Nutrient/physical indicators
Decision scheme	4.2:	Toxicants in water
Decision scheme	4.3:	Toxicants in sediment

Decision scheme 4.1: Narrative decision scheme for applying the EQC for physical and chemical stressors

1. Conduct routine monitoring program covering the area to be assessed using Standard Operating Procedures. Monitoring program should be designed to allow assessment of environmental quality against EQG (A to G) - go to steps 2 - 6.
2. Determine whether nutrient-related EQG (A, B and C) have been exceeded
 - [N]..... - go to step 3.
 - [Y] (EQG A or B). - go to step 7 unless back-up samples or immediate re-sampling does not confirm exceedance of the EQG.
 - [Y] (EQG C)..... - go to step 9 unless back-up samples or immediate re-sampling does not confirm exceedance of the EQG.
3. Determine whether dissolved oxygen-related EQG (D) has been exceeded
 - [N] - go to step 4.
 - [Y] - go to step 10 unless immediate re-measurement does not confirm exceedance of the EQG.
4. Determine whether temperature-related EQG (E) has been exceeded
 - [N] - go to step 5.
 - [Y] - go to step 11 unless immediate re-measurement does not confirm exceedance of the EQG.
5. Determine whether salinity-related EQG (F) has been exceeded
 - [N] - go to step 6.
 - [Y] - go to step 12 unless immediate re-measurement does not confirm exceedance of the EQG.
6. Determine whether EQG (G) for pH has been exceeded
 - [N] - go to step 1.
 - [Y] - go to step 13 unless immediate re-measurement does not confirm exceedance of the EQG.

The EQG is exceeded triggering more intensive investigation. Ambient quality is now monitored and assessed against the Environmental Quality Standard

7. Expand monitoring program as appropriate and implement to allow assessment of environmental quality against EQG (A and/or B) and EQS (A and/or B) - go to step 8.
8. Determine whether EQS (A or B) has been exceeded
 - [N] - go to step 1.
 - [Y] - **EQS triggered** go to step 14.
9. Determine whether EQS (C) has been exceeded
 - [N] - go to step 1.
 - [Y] - **EQS triggered** go to step 14.

- 10. Determine whether EQS (D) has been exceeded
 - [N] - go to step 1.
 - [Y] - **EQS triggered** go to step 14.

- 11. Determine whether EQS (E) has been exceeded
 - [N] - go to step 1.
 - [Y] - **EQS triggered** go to step 14.

- 12. Determine whether EQS (F) has been exceeded
 - [N] - go to step 1.
 - [Y] - **EQS triggered** go to step 14.

- 13. Determine whether EQS (G) has been exceeded
 - [N] - go to step 1.
 - [Y] - **EQS triggered** go to step 14.

The EQS is exceeded triggering a management response.

- 14. Initiate management response to identify the source of contamination and reduce contaminant loads and restore environmental quality to comply with the objectives within specified timeframes.

Decision scheme 4.2: Narrative decision scheme for applying the EQC for marine waters and sediment pore waters

Options are provided in the decision tree for skipping steps once an EQG has been triggered (eg. go straight to testing against biological measures, or implement agreed management strategies to reduce contaminant inputs, without undertaking all of the prior steps). This will largely be based on a simple cost/benefit analysis undertaken for each step, and would require the agreement of all key stakeholders.

1. Determine whether an EQG exists for the contaminants of concern:
 - [N]..... - go to step 2.
 - [Y]..... - go to step 4.

2. Is it appropriate to establish an EQG by determining the 80th percentile for a high ecological protection area, or 95th percentile for a moderate ecological protection area, of natural background concentration?
 - [N]..... - go to step 3.
 - [Y]..... - go to step 4.

3. Is it appropriate in the interim to assess water quality against the low reliability values (LRVs) provided in table 2c of the EQC Reference Document?
 - [N]..... - go to step 14 if significant threat posed by contaminant, otherwise undertake literature search and derive a suitable LRV.
 - [Y]..... - go to step 19.

4. Undertake routine monitoring program covering the area to be assessed and the contaminants of concern using the standard operating procedures and go to step 5.

5. Was the laboratory practical quantitation limit (PQL) for any of the contaminants above the EQG value?
 - [N]..... - go to step 6.
 - [Y]..... - if detection of the contaminant is confirmed in a backup sample go to step 10, otherwise assume the contaminant has not been detected and go to step 4.

6. Determine whether EQG (A) has been met:
 - [N]..... - go to step 8.
 - [Y]..... - if high or moderate ecological protection area go to step 7, or if EQG derived according to steps 2 or 7 go to step 9;
 - if EQG for TBT was exceeded go to step 15;
 - go to step 16 if the EQG was for a low ecological protection area.

7. For naturally occurring chemicals determine whether the 80th percentile for a high ecological protection area, or 95th percentile for a moderate ecological protection area, of natural background contaminant concentration exceeds the EQG:

[N]..... - go to step 9.
[Y]..... - establish the 80th or 95th percentile of background concentration as the new EQG then go to step 6.

8. For the primary contaminants determine whether EQG (B) has been met:

[N]..... - go to step 12.
[Y]..... - no toxicity problem, go to step 4.

The EQG is exceeded triggering more intensive investigation. Ambient quality is now monitored and assessed against the Environmental Quality Standard

9. Give regard to whether the level of contamination requires an urgent response by determining whether the initial management trigger (IMT) from table 2b of the EQC Reference Document has been met while investigations against the EQS are on-going:

[N]..... - consider management action to reduce the level of contamination below the IMT; and
- go to step 10.
[Y]..... - go to step 10.

10. Has the contaminant of concern been identified in Table 2 of the EQC Reference Document as having the potential to adversely bioaccumulate or biomagnify?

[N]..... - go to step 11 (steps 13 or 14 also an option), or step 13 if PQL>EQG.
[Y]..... - go to step 11 (steps 13 or 14 also optional), or step 13 if PQL>EQG; and
- go to step 16.

11. Resolve bioavailable concentrations of relevant contaminants and determine whether EQS (A) has been met:

[N]..... - go to step 13 (steps 14 or 17 also an option).
[Y]..... - go to step 12.

12. For the primary contaminants determine whether EQS (B) has been met:

[N]..... - go to step 13 (steps 14 or 17 also an option).
[Y]..... - environmental quality acceptable, go to step 4.

13. Undertake direct toxicity assessment (DTA) using relevant species and determine whether EQS (C) and/or (D) have been met:

[N]..... - go to step 14 or step 17.
[Y]..... - environmental quality acceptable, modify EQG

accordingly and go to step 4.

14. Undertake detailed field investigation to determine whether EQS (E) has been met for high ecological protection areas, and EQS (E) and (G) have been met for moderate ecological protection areas:

[N]..... - **EQS triggered.** Go to step 17.
[Y]..... - environmental quality acceptable, modify EQG accordingly and go to step 4.

15. If a guideline for TBT has been exceeded then undertake detailed field investigation to determine whether EQS (F) has been met:
- [N]..... - **EQS triggered.** Go to step 17.
 - [Y]..... - environmental quality acceptable, go to step 4.
16. Determine whether EQS (G) for high protection has been met in adjacent high ecological protection areas:
- [N]..... - **EQS triggered.** Go to step 17.
 - [Y]..... - chemical not bioaccumulating, go to step 4.
17. Implement management action to reduce contaminant inputs to the ambient environment and achieve the environmental quality objective within an agreed timeframe. Prior to implementing management action procedures such as TIE and CBR might be required to confirm the specific cause of toxicity or the source of contaminants. In extreme circumstances environmental remediation may be considered appropriate. If EQC for the maintenance of safe seafood have been listed in Table 4 for the problem contaminant(s) then consideration should be given to monitoring the contaminant in seafood to assess risk to human health.
18. Include contaminant in routine monitoring program. If the LRV is not exceeded then environmental quality is acceptable and no management action is required. If the LRV is exceeded, consult with relevant regulators to ensure unacceptable impacts are avoided (this may include undertaking a literature search on effects of the contaminant, undertaking direct toxicity assessment or upgrading the LRV into an EQG).

Decision scheme 4.3: Narrative decision scheme for applying the EQC for toxicants in sediments

Options are provided in the decision tree for skipping steps once an EQG has been triggered (eg. go straight to testing against biological measures, or implement agreed management strategies to reduce contaminant inputs, without undertaking all of the prior steps). This will largely be based on a simple cost/benefit analysis undertaken for each step, and would require the agreement of all key stakeholders.

1. Determine whether an EQG value exists for the contaminants of concern:
 [N]..... - go to step 2.
 [Y]..... - go to step 3.
2. Is it appropriate to establish an EQG value based on natural background concentration?
 [N]..... - go to step 13.
 [Y]..... - establish an EQG based on 2x the median natural background concentration then go to step 3.
3. Undertake routine monitoring program covering the area to be assessed using the standard operating procedures and go to step 4.
4. Determine whether EQG (A) has been met:
 [N]..... - go to step 5.
 [Y]..... - go to step 7.
5. Was the exceeded EQG established for a low ecological protection area?
 [N]..... - if EQG for TBT was exceeded go to step 14; and
 - for other EQG go to step 6 (optional); or
 - go to step 7 to define any 'hot spots'; and
 - to step 9 to investigate against the EQS
 [Y]..... - go to step 15.
6. For naturally occurring chemicals determine whether the natural background contaminant concentration exceeds the EQG value (unlikely in most cases, note that test site and reference site must have comparable grain sizes):
 [N]..... - go to step 7 to define any 'hot spots'; and
 - to step 9 to investigate against the EQS.
 [Y]..... - establish an EQG based on 2x the median natural background concentration then go to step 4.
7. Assess whether EQG (B) has been met:
 [N]..... - go to step 8.
 [Y]..... - no toxicity problem, go to step 3.
8. Determine whether the extent of potential contamination needs to be characterised further (in most cases this will be necessary):
 [N]..... - no toxicity problem, go to step 3.
 [Y]..... - determine area of potential contamination, if sufficient data for its assessment go to step 4; or
 - determine area of potential contamination, design sampling program for this area and go to step 3.

The EQG is exceeded triggering more intensive investigation. Ambient quality is now monitored and assessed against the Environmental Quality Standard

9. Has the contaminant of concern been identified in Table 3 of the EQC Reference Document as having the potential to adversely bioaccumulate or biomagnify:
- [N]..... - go to step 10 (steps 11, 12 or 13 also an option).
 - [Y]..... - go to step 10 (step 11, 12 or 13 also optional);
and
- go to step 15.
10. Resolve bioavailable concentrations (as far as possible) for relevant contaminants and determine whether EQS (A) and (B) have been met:
- [N]..... - go to step 11 (steps 12, 13 or 16 also an option).
 - [Y]..... - environmental quality acceptable, go to step 3.
11. Sample and analyse sediment porewaters for those contaminants of concern that have an EQG for water (Table 2a of EQC Reference document) and determine whether EQS (C) has been met:
- [N]..... - go to step 12 (steps 13 or 16 also an option).
 - [Y]..... - environmental quality acceptable, go to step 3.
12. Undertake sediment toxicity testing using relevant species and determine whether EQS (D) has been met:
- [N]..... - go to step 13 or step 16.
 - [Y]..... - environmental quality acceptable, modify EQG accordingly
and go to step 3.
13. Undertake detailed field investigation to determine whether EQS (E) has been met for high ecological protection areas, or EQS (E) and (G) have been met for moderate ecological protection areas:
- [N]..... - **EQS triggered.** Go to step 16.
 - [Y]..... - environmental quality acceptable, modify EQG accordingly
and go to step 3.
14. If a guideline for TBT has been exceeded then undertake detailed field investigation to determine whether EQS (F) has been met:
- [N]..... - **EQS triggered.** Go to step 16.
 - [Y]..... - environmental quality acceptable, go to step 3.
15. Determine whether EQS (G) for high protection has been met in adjacent high ecological protection areas:
- [N]..... - **EQS triggered.** Go to step 16.
 - [Y]..... - chemical not bioaccumulating, go to step 3.
16. Implement management action to reduce contaminant inputs to the ambient environment and achieve the environmental quality objective within an agreed timeframe. Prior to implementing management action procedures such as TIE and CBR might be required to confirm the specific cause of toxicity or the source of contaminants. In extreme circumstances environmental remediation may be considered appropriate. If EQC for the maintenance of safe seafood have been listed in Table 4 for the problem contaminant(s) then consideration should be given to monitoring the contaminant in seafood to assess risk to human health.

Schedule 5

Decision scheme 5.1: Seafood safe for human consumption

Decision scheme 5.2: Aquaculture

Decision scheme 5.1: Narrative decision scheme for applying the EQC for seafood safe for human consumption

1. Conduct approved monitoring program (based on WASQAP 2011 if for filter feeding shellfish) covering the area to be assessed and the contaminants of concern using the recommended standard operating procedures and go to step 2.
2. Determine whether EQG (A, B and/or C) have been met, and whether EQS (D, E or F) have been met:
 - [N]..... - go to step 3.
 - [Y]..... - seafood suitable for consumption, go to step 1.
3. Are any of the exceedances confirmed by analysing the back-up samples or samples collected immediately from the same sites?
 - [N]..... - seafood suitable for consumption, go to step 1.
 - [Y]..... - go to step 4 if EQG A not met; and
- go to step 6 if EQG B not met; and
- go to step 7 if EQG C not met; and
- go to step 8 if EQS (D, E or F) not met.

The EQG is exceeded triggering more intensive investigation. Ambient quality is now monitored and assessed against the Environmental Quality Standard

4. Determine whether EQS (A) has been met:
 - [N]..... - go to step 5 (or proceed directly to step 8).
 - [Y]..... - go to step 7 for advice on conducting sanitary survey; and
- go to step 1.
5. Determine whether EQS (B) has been met:
 - [N]..... - **EQS triggered.** Go to step 8.
 - [Y]..... - go to step 7 for advice on further monitoring of seafood and conducting sanitary survey; and
- go to step 1.
6. Determine whether EQS (C) has been met:
 - [N]..... - **EQS triggered.** Go to step 9.
 - [Y]..... - EQS not triggered, go to step 7; and
- go to step 1.
7. Contact the WA Department of Health with the results and seek advice on any additional monitoring or management requirements to ensure human health risks are managed at an appropriate level.
8. Implement management action to reduce contaminant inputs, or if this is not practically feasible, then reduce risk to public health through implementation of appropriate management on advice of the WA Department of Health. If appropriate, environmental remediation may be required.
9. Implement management action to reduce the risk to public health on advice of the WA Department of Health. Determine the cause of the toxic algal bloom and, if appropriate, reduce contaminant inputs.

Decision scheme 5.2: Narrative decision scheme for applying the EQC for aquaculture production

Options are provided in the decision tree for skipping steps once an EQG has been triggered (eg. go straight to testing against biological measures, or implement agreed management strategies to reduce contaminant inputs, without undertaking all of the prior steps). This will largely be based on a simple cost/benefit analysis undertaken for each step, and would require the agreement of all key stakeholders.

1. Conduct routine monitoring program covering the area to be assessed and the contaminants of concern using the standard operating procedures and go to step 2.
2. Determine whether EQG (A and/or B) have been met:
[N]..... - go to step 3
[Y]..... - suitable for aquaculture, go to step 1.
3. If the exceedance was for the last sampling occasion has analysis of back-up samples, or samples collected immediately from the same sites, confirmed the exceedance?
[N]..... - suitable for aquaculture, go to step 1.
[Y]..... - go to step 4 if the indicator is naturally occurring; and
- go to step 8 if the indicator is a xenobiotic chemical.
4. Determine whether the 80th or 95th percentile of natural background contaminant concentration, for physico-chemical stressors and toxicants respectively, exceeds the EQG:
[N]..... - go to step 6 if EQG A was not met; and
- go to step 8 if EQG B was not met.
[Y]..... - go to step 5.
5. Establish the 95th percentile of background concentration as the new EQG then determine whether EQG (A and/or B) have been met:
[N]..... - go to step 6 if EQG A not met; and
- go to step 8 if EQG B not met.
[Y]..... - suitable for aquaculture, go to step 1.

The EQG is exceeded triggering more intensive investigation. Ambient quality is now monitored and assessed against the Environmental Quality Standard

6. Determine whether EQS (A) has been met:
[N]..... - go to step 7 (step 11 is also optional).
[Y]..... - EQS not triggered, go to step 1.
7. Determine whether EQS (B) has been met:
[N]..... - **EQS triggered**, go to step 11.
[Y]..... - EQS not triggered, go to step 1.
8. Determine whether EQS (C) has been met:
[N]..... - go to step 9 (steps 10 or 11 also optional).
[Y]..... - EQS not triggered, go to step 1
9. Determine whether EQS (D) has been met:
[N]..... - go to step 10 (step 11 also optional).
[Y]..... - EQS not triggered, go to step 1.

10. Determine whether EQS (E or F) have been met:

- [N]..... - **EQS triggered**, go to step 11.
- [Y]..... - EQS not triggered, go to step 1.

11. Implement management action to reduce contaminant inputs to the ambient environment and achieve the environmental quality objective within an agreed timeframe. Prior to implementing management action procedures such as TIE and CBR might be required to confirm the specific cause of toxicity or the source of contaminants. In extreme circumstances environmental remediation may be considered appropriate.

Schedule 6

Decision scheme 6.1: Primary contact recreation

Decision scheme 6.2: Secondary contact recreation

Decision scheme 6.3: Aesthetic quality

Decision scheme 6.1: Narrative decision scheme for applying the EQC for primary contact recreation

1. Conduct routine monitoring program covering the area to be assessed and the contaminants of concern using the standard operating procedures and go to step 2.
2. Determine whether EQG (A, B, D and/or E) have been met, and whether EQS (E or F) have been met:
 [N]..... - go to steps 3 and 4 if EQG A not met; and
 - go to step 6 if EQG B is not met; and
 - go to steps 3 and 8 if EQG D not met; and
 - go to steps 3 and 9 if EQG E or EQS F not met; and
 - go to steps 3 and 10 if EQS E is not met.
 [Y]..... - go to step 3.
3. Seek information to determine whether EQG C has been met:
 [N]..... - go to step 7.
 [Y]..... - no issues for recreation, go to step 1.

The EQG is exceeded triggering more intensive investigation. Ambient quality is now monitored and assessed against the Environmental Quality Standard

4. Determine whether EQS A has been met:
 [N]..... - go to step 5 and,
 - go to step 10.
 [Y]..... - go to step 5.
5. Undertake a sanitary inspection of the site in liaison with the WA Department of Health to further assess the risk to recreational users. Develop predictive approaches to give early warning of periods or events likely to result in poor microbiological water quality and increase sampling frequency in these areas then:
 - go back to step 1.
6. Contact the WA Department of Health and intensify monitoring of potentially toxic algal species to assess human health risk and determine whether EQS B and C have been met:
 [N]..... - go to step 9.
 [Y]..... - no issue identified, maintain increased monitoring intensity until EQG met on two consecutive occasions then go to step 1.
7. Contact the WA Department of Health and determine whether EQS D has been achieved:
 [N]..... - go to step 10.
 [Y]..... - maintain increased monitoring intensity until all relevant EQG are achieved.
8. Swimmers should be urged to use caution when swimming in these waters. Signage may be an option.
9. Contact the WA Department of Health with the results and seek advice on setting an appropriate environmental quality standard that protects recreational users and on any additional monitoring or management requirements to ensure human health risks are managed at an appropriate level.

10. Reduce risk to public health through appropriate management on advice of the WA Department of Health and implement management action to reduce contaminant inputs where these have been shown to have caused the problem. If appropriate, environmental remediation may be required.

Decision scheme 6.2: Narrative decisions scheme for applying the EQC for secondary contact recreation

1. Conduct routine monitoring program covering the area to be assessed and the contaminants of concern using the standard operating procedures and go to step 2.
2. Determine whether EQG A, B, D and/or E have been met:
 - [N]..... - go to steps 3 and 4 if EQG A not met; and
- go to step 6 if EQG B not met; and
- go to steps 3 and 7 if EQG D or E not met.
 - [Y]..... - go to step 3.
3. Seek information to determine whether EQG C has been met:
 - [N]..... - go to step 6.
 - [Y]..... - no issues for recreation, go to step 1.

The EQG is exceeded triggering more intensive investigation. Ambient quality is now monitored and assessed against the Environmental Quality Standard

4. Determine whether EQS (A) has been met:
 - [N]..... - go to step 5, and
- go to step 8.
 - [Y]..... - go to step 5.
5. Undertake a sanitary inspection of the site in liaison with the WA Department of Health to further assess the risk to recreational users. Develop predictive approaches to give early warning of periods or events likely to result in poor microbiological water quality and increase sampling frequency in these areas then: - go back to step 1.
6. Contact the WA Department of Health and determine whether EQS B has been achieved:
 - [N]..... - go to step 8;
 - [Y]..... - no issue identified, go to step 1.
7. Contact the WA Department of Health with the results and seek advice on setting an appropriate environmental quality standard that protects recreational users and on any additional monitoring or management requirements to ensure human health risks are managed at an appropriate level.
8. Reduce risk to public health through appropriate management on advice of the WA Department of Health and implement management action to reduce contaminant inputs where these have been shown to have caused the problem. If appropriate, environmental remediation may be required.

Decision scheme 6.3: Narrative decision scheme for applying the EQC for aesthetic quality

1. Conduct routine monitoring program covering the area to be assessed and monitor public complaints. Go to steps 2 and 3.
2. Determine whether all of EQG (A to I) have been met:
 [N]..... - go to step 5.
 [Y]..... - aesthetic values not compromised, go to step 1.
3. Determine whether EQG (J) has been met:
 [N]..... - go to step 4
 [Y]..... - aesthetic values not compromised, go to step 1.
4. If the exceedance was for the last sampling occasion has it been confirmed through analysis of back-up samples or samples collected immediately from the same sites?
 [N]..... - aesthetic values not compromised, go to step 1.
 [Y]..... - go to step 6.

The EQG has been triggered and the EQS need to be addressed.

5. Determine whether EQS (A) has been met:
 [N]..... - go to step 7;
 [Y]..... - aesthetic values not compromised, go to step 1.
6. Determine whether EQS (B) has been met:
 [N]..... - go to step 7;
 [Y]..... - aesthetic values not compromised, go to step 1.
7. Identify the causes for the loss of aesthetic value in Cockburn Sound and implement management actions to prevent further reduction of, and if possible to improve, the aesthetic value within an agreed timeframe.

Schedule 7

Decision scheme 7.1: Industrial water supply

Decision scheme 7.1: Narrative decision scheme for applying the EQC for Perth Seawater Desalination Plant intake water

1. Conduct routine monitoring program around the pressure source and seawater intake location if necessary. Go to steps 2 and 3.
2. Determine whether all of EQG A to J have been met:
 [N]..... - go to step 3.
 [Y]..... - intake water quality not compromised, go to step 1.
3. Confirm whether all of EQG A to J have been met at the seawater intake of the Perth Desalination Plant:
 [N]..... - go to step 4 if EQG A, B or H not met;
 - go to step 5 if EQG C, D, E, F, G, I or J not met;
 [Y]..... - intake water quality not compromised, go to step 1.

The EQG has been triggered and the EQS need to be addressed.

4. Depending on which EQG was exceeded, determine whether EQS A, B and/or C have been met:
 [N]..... - go to step 8;
 [Y]..... - intake water quality not compromised, go to step 6.
5. Determine whether EQS D has been met:
 [N]..... - go to step 8;
 [Y]..... - intake water quality not compromised, go to step 7.
6. Given the potential threat to the quality of the intake water, modify the sampling locations and sampling frequency in the monitoring program as necessary then return to step 1.
7. In liaison with the Water Corporation, and in light of contaminant levels in the actual intake water, modify the EQG as necessary and review the sampling frequency and sampling locations in the monitoring program, then return to step 1.
8. Identify the source of the contaminant and implement a management response to either return levels of the contaminant to meet the EQG at the seawater intake of the Perth Seawater Desalination Plant or treat the intake seawater to meet the EQS.