

**PROPOSED AMENDMENTS TO THE *ENVIRONMENTAL PROTECTION*
(*WATER*) *POLICY 1997* - IMPACTS ON DEVELOPERS AND LOCAL
GOVERNMENTS**

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Proposed amendments to the *Environmental Protection (Water) Policy 1997* - impacts on developers and local governments

Synopsis

The *Environmental Protection (Water) Policy 1997* (**Policy**) specifies the values attributable to waters in Queensland and the water quality guidelines which apply to Queensland waters.

The Environmental Protection Agency is seeking to amend the Policy to include environmental values and water quality objectives specific to waters in Douglas Shire, the Mary River Basin/Great Sandy Region and Moreton Bay/South-east Queensland. It has also introduced draft Queensland water quality guidelines.

While the development of these environmental values, water quality objectives and water quality guidelines is a positive step forward in dealing with water quality issues in Queensland, they do not apply to all of the State, and therefore much of the State is still required to refer to the default provisions in the Policy and default guidelines.

The impact of these proposed amendments and the draft water quality guidelines remains to be seen. Given the Policy itself is not presently applied in a certain or consistent manner, the effect of the changes is likely to be inconsistent and uncertain.

1. Introduction

- 1.1 Water is a big issue in Queensland at the moment. At a time when most of Queensland, and in fact Australia, is dealing with water restrictions and a lack of water, maintaining and improving the integrity of the little water we do have should be a priority.
- 1.2 There is a growing recognition that there has been an overall decrease in the quality of Queensland's waters which impacts on the uses to which those waters can be put.
- 1.3 It is also now recognised that the variability between different aquatic environments in terms of water quality and the functions those aquatic environments provide makes it almost impossible to apply a single set of water quality guidelines and values across all waters.
- 1.4 The purpose of this presentation is to provide an overview of the Queensland *Environmental Protection (Water) Policy 1997* (**Policy**) which sets out the values of waters in Queensland the water quality guidelines which apply to waters in Queensland.

- 1.5 Earlier this year the Environmental Protection Agency (**EPA**) released a set of draft environmental values and water quality objectives that have been developed specific to certain waters in Queensland. It is proposed that the Policy be amended to include these draft environmental values and water quality objectives. At the same time, the EPA released draft Queensland Water Quality Guidelines to be applied in accordance with the Policy.
- 1.6 I will review the draft environmental values, water quality objectives and water quality guidelines and discuss their likely impact on local governments and developers, taking into account the operation and application of the Policy.
- 1.7 I do not intend to deal in any depth with the other aspects of the Policy relating to the preparation of plans or the offence provisions in the Policy.

2. ***Environmental Protection (Water) Policy 1997***

- 2.1 The *Environmental Protection (Water) Policy 1997* (**Policy**) is a policy created in accordance with Chapter 2 of the *Environmental Protection Act 1997* (**EP Act**). The basic framework of the Policy is as follows:
 - (a) **Preliminary** - contains mechanical provisions standard to all legislation.
 - (b) **Application and purpose of Policy** - provides that the Policy applies to all Queensland waters and sets out the purpose of the Policy which includes identifying environmental values for Queensland waters.
 - (c) **Basic concepts** - these are environmental values (**EVs**), indicators for environmental values, water quality guidelines (**WQGs**) and protocols. EVs, indicators and WQGs are discussed in greater detail in section 3 of this paper.
 - (d) **Management goals for waters** -
 - i) Provides for water quality objectives (**WQOs**) which are the objectives for the water quality of a water and are used to either maintain or improve the EVs of a water. WQOs are discussed in greater detail in section 3 of this paper.
 - ii) Sets out the process for identifying the EVs and WQOs for waters.
 - iii) States that the EVs for a water are protected if the measures for all indicators do not exceed the WQGs stated for the indicators.

- (e) **Management of activities** - requires the EPA to consider certain factors when making an environmental management decision about water.¹
- (f) **Management of certain sources of contamination** - this part of the Policy contains a number of offence provisions including prohibitions on the deposit or release of certain waste materials and items into a roadside gutter, stormwater drain or a water and activities causing the build up of sand, silt or mud in a roadside gutter, stormwater drain or a water.²
- (g) **Environmental plans** - provides for the development of environmental plans to achieve the purpose of the Policy.
- (h) **Miscellaneous** - contains provisions relating to the functions of the chief executive, ambient monitoring of waters and amending the Policy.
- (i) **Assessment of Policy performance** - provides for the process to be followed in reviewing the Policy in accordance with section 36 of the EP Act.
- (j) **Schedule 1** - contains two columns. The first lists a particular water and the second describes a document setting out the EVs and WQOs for that water. At the present time, the only water listed in Schedule 1 is Trinity Inlet and the document identified in the second column for Trinity Inlet is the Trinity Inlet Management Plan prepared by the Trinity Inlet Management Plan Steering Committee.
- (k) **Schedule 2** - contains the definitions of words used in the Policy.

3. EVs, indicators, WQGs and WQOs

- 3.1 EVs, indicators, WQGs and WQOs are central to the Policy and form the basis upon which decisions are made and actions taken. These concepts are also the subject of the proposed amendments to the Policy. The meaning of these concepts in the context of the Policy is as follows:

Environmental values

- 3.2 An EV as it relates to a water is basically a particular quality of that water which provides value in terms of the ecological functions it performs or the use to which it can be put by humans.

¹ An environmental management decision is defined in the Policy as a decision about an environmental authority, development approval, environmental management program or environmental protection order for an environmentally relevant activity or other activity.

² see Sections 31 and 32 of the Policy.

3.3 As discussed in paragraph 2.1(j) above, Schedule 1 of the Policy lists waters for which a specific document also identified in Schedule 1 has been prepared setting out the particular EVs of a water. At this stage Trinity Inlet is the only water listed in Schedule 1.

3.4 Therefore, for any water other than Trinity Inlet, it will be necessary to look to the default EVs in section 7(2) of the Policy which are as follows:

(a) If the water:

- i) is pristine water - biological integrity of a pristine aquatic ecosystem; or
- ii) is not a pristine water - biological integrity of a modified aquatic ecosystem; and

(b) suitability for recreational use; and

(c) suitability for minimal treatment before supply as drinking water; and

(d) suitability for agricultural use; and

(e) suitability for industrial use.

3.5 As discussed, the variability of natural features between waters means that it is arguably impossible to apply a single set of values across all Queensland waters. For this reason, the Policy states that if a natural property of a water precludes enhancement or protection of a particular EV as listed in subparagraphs 3.4(a) to 3.4(e) above, that particular EV is not a value to be enhanced or protected under the Policy.

Indicators for environmental values

3.6 Section 8 of the Policy states that an indicator for an EV is a property that is able to be measured or decided in a quantitative way. For example, the pH value or concentration of a certain chemical will be an indicator for an EV.

3.7 The Policy provides that the following documents are to be used to decide the indicators for an EV for water:

(a) site specific documents;³

³ Documents that contain specific information about a water, or part of a water and is recognised by the administering authority as having appropriate scientific authority (see the Dictionary in Schedule 2 of the Policy).

- (b) the Australian Water Quality Guidelines for Fresh and Marine Waters published by the Australian and New Zealand Environment and Conservation Council in 1992 (**ANZECC Guidelines**);
 - (c) any relevant Australian Standards;
 - (d) any other document published by a recognised entity.⁴
- 3.8 To the extent that there is any inconsistency between these documents, the Policy states that they are to be used in the order they are listed.

Water quality guidelines

- 3.9 In accordance with section 9 of the Policy, WQGs are numerical concentration levels or statements for indicators that protect a stated EV. Basically, WQGs applicable to an indicator set out the allowable concentration or level of a that indicator in a water if a certain EV is to be supported by that water.
- 3.10 Section 9(2) of the Policy states that the following documents are used to decide the WQGs for an EV for a water:
- (a) site specific documents;
 - (b) the ANZECC Guidelines;
 - (c) documents published by a recognised entity.
- 3.11 Again, to the extent there is any inconsistency between these documents, the documents are to be used in the order in which they are listed.

Water quality objectives

- 3.12 The WQOs for a water in Schedule 1 are those as stated in a document specified for that water in Schedule 1 of the policy. However, as discussed in paragraph 2.1(j) above, the only water listed in Schedule 1 is Trinity Inlet.
- 3.13 Where a water is not listed in Schedule 1 of the Policy, or where the document specified for a water in Schedule 1 does not provide WQOs, the applicable set of WQGs are to be applied as default WQOs. This means that the Policy will not require the quality of a water not listed in Schedule 1 to be improved so as to enable its use for a higher EV. Instead, the WQGs applicable to the existing EVs supported by the water must be maintained.

⁴ a list of recognised entities is provided in the Policy and includes an environmental protection agency of another national government, the CSIRO or an Australian university (see the Dictionary in Schedule 2 of the Policy).

4. How is the Policy used

- 4.1 In practice, the Policy is used as a reference document in conditions attaching to development approvals for Environmentally Relevant Activities (**ERAs**) and other activities in relation to which the EPA is the assessment manager or a concurrence agency. Some local governments also refer to the Policy when conditioning development approvals.
- 4.2 Section 73A of the EP Act requires the EPA to ensure that any relevant Environmental Protection Policy (**EPP**) is complied with when assessing a development application for an environmentally relevant activity (**ERA**) (other than a mining or petroleum activity) as either assessment manager or a concurrence agency.⁵ Under section 73B, a requirement of an EPP can be imposed as a condition of a development approval for an ERA.
- 4.3 Such a condition may require a person to maintain the EVs of a water by ensuring that any discharge to the water does not cause the relevant indicators in that water to exceed the WQGs for the EVs of the water.
- 4.4 Alternatively, the water quality of waste water discharges can be required to comply with relevant WQGs or WQOs identified in the Policy.
- 4.5 As discussed in paragraph 2.1(e) above, decisions in relation to environmental authorities and development approvals are environmental management decisions for the purposes of the Policy. A decision about an environmental management program or a environmental protection order are also environmental management decisions. In accordance with Part 5 of the Policy, the EVs, WQOs and WQGs for a water will be relevant in certain circumstances where the EPA is making an environmental management decision.
- 4.6 Given the ability for the EVs, WQOs and WQGs in the Policy to apply to individual developments and activities, it is important that the Policy contain specially tailored EVs and indicators for all waters in Queensland, supported by accurate and realistic WQGs and WGOs.

5. Proposed amendments

- 5.1 The EPA proposes to amend Schedule 1 of the Policy to establish EVs and WQOs for waters in the following areas:
 - (a) Moreton Bay/South-east Queensland;

⁵ This obligation is imposed on a local government where the development application involves an ERA that has been devolved to local government.

- (b) Mary River Basin/Great Sandy Region; and
- (c) Douglas Shire.

5.2 Therefore EVs have been specifically tailored for all waters in the above three areas. The WQOs identified for each water will then aim to maintain or achieve those particular EVs.

6. Draft Schedule 1 documents

6.1 As discussed in paragraph 2.1(j) above, Schedule 1 lists a particular water in the first column in the Schedule and then the document which sets out the EVs and WQOs for that water in the second column in the Schedule.

6.2 The EPA has released 42 draft documents for inclusion in the Schedule. Each document relates to a particular catchment or group of waters in each of the three areas and follow the same general format as follows:

- (a) **Introduction** - defines EVs and WQOs and sets out the suite of environmental values that can be chosen for protection which are as follows:
 - i) **Aquatic ecosystem** - the intrinsic value of aquatic ecosystems, habitat and wildlife in waterways and riparian areas, eg. biodiversity, ecological interactions, etc. There are three levels of protection within the aquatic ecosystem EV:
 - **Level 1: High ecological/conservation value ecosystems** - effectively unmodified or other highly valued systems;
 - **Level 2: Slightly-moderately disturbed ecosystems** - ecosystems in which aquatic biological diversity may have been adversely affected to a relatively small but measurable degree by human activity;
 - **Level 3: Highly disturbed ecosystems** - measurably degraded ecosystems of lower ecological value;
 - ii) **Seagrass protection** - the maintenance or rehabilitation of seagrass habitat is a goal within the aquatic ecosystem EV which is not included in all of the draft Schedule 1 documents;

- iii) **Human consumers of aquatic foods** - the health of humans consuming aquatic foods such as fish, crustaceans and shellfish (other than oysters) from natural waterways;
 - iv) **Oystering** - health of humans consuming oysters from natural waterways and commercial ventures is a goal within the human consumers of aquatic foods EV;
 - v) **Primary recreation** - health of humans during recreation which involves direct contact and a high probability of water being swallowed, eg. swimming;
 - vi) **Secondary recreation** - health of humans during recreation which involves indirect contact and a low probability of water being swallowed, eg. rowing;
 - vii) **Visual recreation** - amenity of waterways for recreation which does not involve any contact with water, eg. walking adjacent to a waterway;
 - viii) **Cultural heritage** - indigenous and non-indigenous cultural heritage;
 - ix) **Industrial use** - suitability of water supply for industrial use;
 - x) **Aquaculture** - health of aquatic species and humans consuming aquatic foods (such as fish, molluscs and crustaceans) from commercial ventures;
 - xi) **Drinking water supply** - suitability of raw drinking water supply (assumes minimal treatment of water);
 - xii) **Irrigation** - suitability of water supply for irrigation;
 - xiii) **Stock watering** - suitability of water supply for production of health livestock;
 - xiv) **Farm water supply** - suitability of domestic farm water supply, other than drinking water.
- (b) **Environmental Values** - sets out the EVs to be protected in particular waters within the catchment. For example, in the Bloomfield River draft Schedule 1 document, aquatic ecosystems, human consumers of aquatic food, primary recreation, secondary recreation, visual recreation and cultural heritage are the EVs for estuarine reaches - estuary and enclosed coastal waterways within the catchment.

(c) **Water Quality Objectives -**

- i) sets out the specific WGOs for an EV for particular waters within the catchment;
- ii) provides guidelines for the management of blue-green algae in contact recreation areas;
- iii) sets out the general recommended levels of water quality parameters for tropical aquaculture;
- iv) sets out recommended levels of water quality parameters for optimal growth of particular species in freshwater and particular marine species;
- v) sets out certain trigger values for chemicals and substances in irrigation waters and livestock drinking water; and
- vi) provides livestock tolerances to total dissolved solids (salinity) in drinking water.

7. Draft Queensland Water Quality Guidelines

- 7.1 In conjunction with the development of the draft EVs and WQOs, the EPA has developed the draft Queensland Water Quality Guidelines (**QWQGs**). The QWQGs were one of the primary information sources used to derive the draft EVs and WQOs.⁶
- 7.2 As discussed in paragraph 3.8 above, site specific documents are to be used to derive the WQGs for the purposes of the Policy prior to reference being made to the ANZECC Guidelines. The QWQGs are specific to Queensland waters and therefore are to be referred to over the ANZECC Guidelines.
- 7.3 Where the QWQGs fail to provide guidelines for a particular indicator, the ANZECC Guidelines will apply. Alternatively, the QWQGs encourages the development of locally specific guidelines where there is a gap in the QWQGs, and provides guidance on how to derive local guidelines.
- 7.4 The QWQGs breaks down Queensland into 7 regions and 7 water types. The regions adopted for the QWQGs are:
- (a) Wet Tropics;
 - (b) Eastern Cape York;
 - (c) Gulf rivers;

⁶ see EPA Website -www.epa.qld.gov.au/environmental_management/water/water_quality_guidelines/

- (d) Lake Eyre;
- (e) Murray Darling;
- (f) South-east; and
- (g) Central.

7.5 The water types adopted for the QWQGs are:

- (a) Upland freshwater;
- (b) Lowland freshwater;
- (c) Lakes;
- (d) Wetlands;
- (e) Estuaries (further broken down into Upper Estuary and Mid Estuary water types in the South-east and Central regions).
- (f) Inshore Marine (further broken down into Enclosed coastal/lower estuary and Open coastal in the South-east, Central and Wet Tropics regions); and
- (g) Offshore Marine.

7.6 The QWQGs includes subregional guidelines specific to certain waters in the South-east region. However, no guidelines have been provided for the Eastern Cape York, Gulf Rivers, Lake Eyre and Murray Darling regions. Therefore, the QWQGs fail to provide detailed WQGs for most of Queensland's waters.

7.7 Where the QWQGs does provide water quality guidelines, these have only been provided for the aquatic ecosystem EV. Further, only physical and chemical indicators have been included, with guidelines for biological indicators provided for the South-east region only. Guidelines for toxicant indicators have not been developed.

7.8 The QWQGs does provide general guidelines that apply state wide for certain aquaculture activities (developed by the Department of Primary Industries) and the management of blue-green algae in contact recreation areas (developed by the Department of Natural Resources and Mines).

7.9 It is intended that the QWQGs will be updated as more data is obtained and guidelines for other indicators, water types and uses of water not presently covered by the QWQGs are developed.

8. Impact of proposed amendments and QWQGs

- 8.1 One of the major issues associated with the Policy generally, which will effect the potential impact of the amendments and the QWQGs, is the uncertain and inconsistent way in which the Policy can be applied.
- 8.2 The Policy is only required to be applied or considered where an application for an ERA other than a mining and petroleum activity is being assessed or conditioned under the EP Act.⁷
- 8.3 The EPA must apply the Policy when acting as an assessment manager or referral agency to any development application under IPA.⁸ However, certain other development applications with the potential to impact on a water, in relation to which the EPA is not assessment manager or a referral agency, will not be required to comply with the Policy.
- 8.4 The Regulatory Impact Statement prepared in relation to the proposed amendments and the QWQGs document indicate that the EPA expects local governments to incorporate the EVs, WQOs and QWQGs into their planning documents and therefore for the EVs, WQOs and QWQGs to be widely applied by local governments. While a number of the larger and better resourced local governments may do this, many local governments will lack the technical and financial resources.
- 8.5 Where the Policy is applied to a development, the introduction of the proposed EVs, WQOs and QWQGs would appear to be unlikely to vary the impact the Policy would have on a development application to any large extent.
- 8.6 Given the narrow scope of the QWQGs as they stand, in most cases and in almost all cases in North Queensland, it will be necessary to default to the ANZECC Guidelines when assessing and conditioning a development application. In this way, the applicable WQGs in most circumstances will be the same as those that applied before the introduction of the QWQGs. However, this may not be true so much for the South-east region, where the QWQGs go into the most amount of depth.

⁷ see Section 73A and 73B of EP Act.

⁸ see Sections 3.3.15(1)(a), 3.5.4(3) and 3.5.5(2)(e) of IPA.

- 8.7 The proposed amendments may have an effect where a development application is being assessed for its impact on a water which has been assigned a legislative EVs which may not in the past have been a consideration for that water. However I believe that this is unlikely, in that the draft EVs are based on the general understanding of the EVs that a particular water supports. Presumably, the EPA would have taken into account these existing EVs when making a decision on a development application, on the basis that the existing EVs would have been likely to fall within the default EVs in section 7 of the Policy.
- 8.8 Another issue may arise where a new development is unable to commence as doing so would mean that the WQOs for a water will not be met, with a number of existing and inefficient developments causing the relevant indicators to be at the threshold levels. However, this situation could conceivably arise now where the ANZECC Guidelines are taken to be the WQOs all waters in Queensland. It is arguable that the situation is more likely now in the absence of catchment specific WQGs and WQOs.
- 8.9 One concern for developers is that the EPA will use its power to add or change a development condition of a development approval for an ERA (other than a mining and petroleum activity) under section 73C of the EP Act to impose a more stringent operating requirement based on the new EVs, WGOs and QWQGs. Although this is possible, this power is at present rarely used and it would appear unlikely that the EPA will call upon this power any more frequently just because of the introduction of the EVs, WGOs and QWQGs.

9. Conclusion

- 9.1 In the absence of legislative change to the circumstances in which the Policy must be applied, the proposed EVs, WGOs and QWQGs are unlikely to have a major impact on developers, especially in North Queensland.
- 9.2 Local governments also will be largely unaffected by the changes, unless legislative change is made requiring the incorporation of the Policy in local government planning documents or decision making.
- 9.3 It is a positive step that the EPA has taken in preparing these documents. The introduction of the EVs and WGOs will assist in removing some of the uncertainty associated with these concepts in the Policy as it now stands, at least in relation to the three areas for which EVs and WQOs have been developed.
- 9.4 The introduction of WQGs specific to Queensland is also a positive step, however, there needs to be guidelines for all of Queensland and not just South-east Queensland.

9.5 However, uncertainty will remain in relation to the application of the EVs, WQOs and WQGs while the Policy is applied in what can be said to be a haphazard way through the assessment and conditioning of some, but not all, development proposals. Until legislative change is made to resolve the issues associated with the Policy itself, the proposed changes can only be of limited effect.