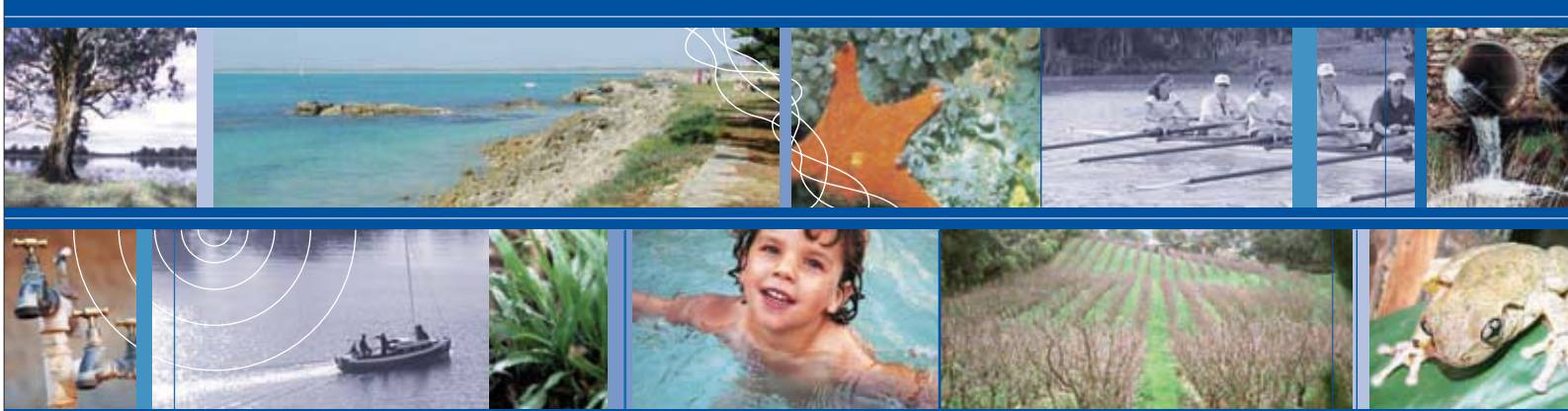


Environment Protection (Water Quality) Policy and Explanatory Report 2003



Government
of South Australia



Environment Protection (Water Quality) Policy 2003 and Explanatory Report

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Before you read further, please note:

Part 2 in this document, *Environment Protection (Water Quality) Policy 2003*, has been removed as it is outdated.

**The latest version of the Policy can be viewed at
<www.legislation.sa.gov.au>.**

For enquiries, please call 8204 1401.

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ENVIRONMENT PROTECTION (WATER QUALITY) POLICY 2003

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EXECUTIVE SUMMARY

Prior to the authorisation of the *Environment Protection (Water Quality) Policy 2003* on 10 April 2003, there was no consistent State-wide approach to the protection of water quality across all South Australian water bodies, in particular for inland waters. This posed the risk that over time the quality of South Australian waters would be degraded further, with resulting economic, social (including public health) and environmental impacts.

To address this risk, the Environment Protection Authority (EPA) developed an *Environment Protection (Water Quality) Policy* (Water Quality Policy or Water Quality EPP) to manage water quality in the State. When the authorised policy comes into operation on 1 October 2003, it will apply to all inland surface, ground waters and marine waters and cover a range of issues including:

- water quality objectives
- management and control of point and diffuse sources of pollution
- obligations relating to particular activities
- water quality criteria, discharge limits and listed pollutants.

Part 1 of this report explains the policy on a clause-by-clause basis and a copy of the policy can be found in Part 2.

Part 1

Explanatory Information

1 INTRODUCTION

1.1 General

The Environment Protection Authority (EPA) has developed an *Environment Protection (Water Quality) Policy* (Water Quality Policy or Water Quality EPP) for South Australia's inland (surface and underground), estuarine and marine waters.

Part 1 of this report provides background information describing why the Water Quality Policy is needed and explains the policy on a clause-by-clause basis. Part 2 is a copy of the policy.

1.2 What is an Environment Protection Policy?

An Environment Protection Policy (EPP) is one of a number of legislative tools provided for by the *Environment Protection Act 1993* (the Act) to address environment protection matters. An EPP can be made for any purpose directed towards securing the objects of the Act. This may include setting out requirements or mandatory provisions that will be enforceable under the Act.

1.3 Why do we need a Water Quality Protection Policy?

Before the Water Quality Policy there was no consistent State-wide approach to the protection of water quality from point and diffuse pollution sources across all South Australian water bodies, in particular for inland waters. Prior to the proclamation of the Act in May 1995, the quality of the State's waters was regulated through the *Marine Environment Protection Act 1990* and the *Water Resources Act 1990*.

Operational sections of the Marine Environment Protection Act were included in the *Environment Protection (Marine) Policy 1994* under transitional arrangements. The *Water Resources Act 1997*, which replaced the *Water Resources Act 1990*, focuses more on water management and water quantity issues than on environmental protection. Since the Environment Protection Act came into operation, Environment Protection Policies have been made to control effluent from milking sheds and waste from vessels on inland waters. These policies will be repealed when the Water Quality Policy comes into operation. The major components of those EPPs have been translated into codes of practice under the Water Quality Policy.

Prior to authorisation of the policy, there was no State legislation that enabled water bodies to be protected on the basis of their environmental value. The notion of environmental values is the cornerstone of the National Water Quality Management Strategy (NWQMS) (*Policy and Principles: A Reference Document*, 1994, ANZECC/ARMCANZ), which forms the basis for water quality policy development both in South Australia and in other jurisdictions. Importantly, the NWQMS provides the basis for a water quality policy framework grounded in the principles of ecologically sustainable development. It provides tables of values, or guidelines, against which a particular water body can be assessed.

Because of the nature of licensing under the Environment Protection Act, point source pollution from industry is not controlled using uniform environmental requirements. Whereas larger industries are licensed under the Act and are required to comply with licence conditions, many smaller industries conducting the same types of activities are not licensed. These unlicensed industries are obliged to meet their general environmental duty of care under the Act, but they do not necessarily operate under the same constraints as licensed industries. The Water Quality Policy goes beyond the general environmental duty by setting

down specified obligations for listed industries. The policy also imposes obligations on the community and seeks to manage and control diffuse sources of pollution (Part 5 of the policy).

The lack of a consistent State-wide approach to the management of water quality poses the risk that, over time, the quality of South Australian waters would be degraded. This would have had economic, social (including public health) and environmental impacts.

An EPP is the most appropriate mechanism to provide a consistent State-wide approach to the protection of water quality for all water bodies and to ensure that all industries, regardless of their scale of activity, operate under uniform conditions regarding water quality. The Water Quality Policy seeks not only to protect and improve the quality of the State's water bodies, but also to encourage better use of wastewater by waste avoidance or elimination, minimisation, recycling and reuse; waste treatment to reduce potential degrading impacts; and, finally, environmentally sound disposal.

1.4 Benefits of a Water Quality Policy

The Water Quality Policy is expected to have three main outcomes:

- improvements in the environmental quality of aquatic ecosystems resulting from the control and management of point and diffuse source discharges
- positive changes in the way the community and resource managers view the human usage of the aquatic environment
- benefits to the community and industry resulting from improved recreational, tourism, aquacultural, agricultural and industrial opportunities.

Government, business, the community and the environment are all likely to benefit from the Water Quality Policy. The main benefits are likely to include:

- a reduction in remediation costs associated with aquatic environments
- clarification of the legislation as it applies specifically to the aquatic environment, making for better understanding, greater certainty and time savings in enforcement
- environmental standards that are consistent across the State's aquatic environments and closely linked to national strategies
- promotion of cleaner methods of production by encouraging wastewater avoidance, recycling or reclamation, reuse, treatment to reduce potentially degrading impacts, and environmentally sound disposal
- better community health
- an improvement in the aesthetic quality of the State's waters
- maintenance of aquatic biodiversity
- protection of aquatic environments.

1.5 Water quality policy development in other states

Water quality policies incorporating the notion of 'environmental value' or beneficial use have been developed in most States including Queensland, Victoria, the Australian Capital Territory, Western Australia and Tasmania.

A review and assessment of the interstate policies was part of the process used in developing the South Australian policy.

1.6 Process for making an Environment Protection Policy

The development of the Water Quality Policy followed the legislative requirements as prescribed in section 28 of the Act. The steps included:

- advertising the intent to prepare a draft policy
- preparing a draft policy and explanatory report
- referring the draft to 'prescribed bodies'
- publicly exhibiting the draft policy for a minimum period of two months
- conducting a public hearing on the draft policy and submissions
- second round consultation with prescribed bodies, statutory authorities, government agencies and local government on an amended draft policy
- referring the draft policy to the Minister to whom the Act is committed for approval
- referring the policy to the Governor for authorisation and placing the notice in the Government Gazette
- referring the policy to the Environment, Resources and Development Committee
- laying the policy before both Houses of Parliament.

1.7 Inter-relationship between the policy and the *Development Act 1993*

Although the policy will apply in its own right, and has mandatory provisions that may be enforced, the effective implementation of the Water Quality Policy will be enhanced through the inclusion of the main features of the policy in the development plans of local councils. This inclusion requires the amendment of the development plans of each council.

Development plan amendments will comprise a series of objectives and principles of development control placed within the council-wide parts of individual development plans. It is not proposed to make any changes to the complying, non-complying or public notification categories of any development plan.

2 OVERVIEW OF THE POLICY

This section of the report provides an explanation of the main features of the policy. The explanation follows the major parts of the Water Quality Policy.

The Water Quality Policy clarifies the obligation imposed by section 25 of the Act (General Environmental Duty) on any person in South Australia undertaking an activity that pollutes or might pollute in relation to impacts upon water quality. The policy establishes framework water quality objectives and sets down general obligations, such as the obligation to avoid discharges to water, to not contravene the water quality criteria set down in the policy, and to not cause certain environmental harm. The Water Quality Policy also provides mechanisms for exemptions to be obtained from parts of the policy.

2.1 Part 1: Preliminary

Part 1 of the policy defines the scope and application of the policy, provides an interpretation of the terms used in the policy and establishes a mechanism (clause 6) to amend prescribed parts of the policy pursuant to section 32(1)(c) of the Act. Clause 5 of Part 1 also lists the current EPPs that have been revoked with the authorisation of the Water Quality Policy.

2.2 Part 2: Policy objectives

The purpose of the Water Quality Policy is to achieve the sustainable management of the waters of the State by protecting and enhancing water quality while allowing economic and social development.

The objects (clause 7) of the policy are to:

- focus water quality management on achieving water quality objectives that will protect or enhance the water quality values assigned by this policy to the various areas of water
- ensure that pollution from both diffuse and point sources does not prejudice the achievement of those water quality objectives
- ensure that waste management will be based on doing the following, in the following order of priority (the waste management hierarchy). The hierarchy has been amended to reflect the most recent usage:
 - (i) avoiding the production of waste
 - (ii) minimising, as far as reasonably practicable, the production of waste
 - (iii) reusing waste
 - (iv) recycling waste
 - (v) recovering part of waste for re-use
 - (vi) treating waste to reduce potentially degrading impacts
 - (vii) disposing of waste in an environmentally sound mannerto the effect that, first, the production of waste should be avoided and, second, to the extent that avoidance is not reasonably achievable, the production of waste should, as far as reasonably practicable, be minimised, and so on.
- promote best practice environmental management
- promote within the community environmental responsibility and involvement in environmental issues.

The Water Quality Policy seeks to meet these objectives by a number of means. These include:

- setting ambient water quality objectives for all water bodies in South Australia
- using codes of practice that describe best practice environmental management for particular activities and which can be enforced using Environment Protection Orders
- specifying requirements, with offences as appropriate, to ensure that essential practices are met
- providing the ability to set discharge limits for particular activities
- establishing an obligation not to discharge listed pollutants into waters
- restricting the discharge of listed pollutants onto land where they are liable to enter into waters
- monitoring water quality.

Each of these will be explained in more detail in the following sections of this document.

The objectives adopted by the policy are shown diagrammatically in Figure 1. These objectives are like building blocks in a pyramid, where success in reaching the goals at the top is dependent on successfully achieving those lower in the pyramid. By reducing pollutant loads to water bodies, the overall quality, or ambient condition, of the water ecosystem is improved and the waters can support the designated environmental uses. Ultimately, the health of both the general public and aquatic ecosystem is protected and enhanced.

2.3 Waters covered by the policy

The policy covers all waters in the State including marine, estuarine and inland (surface and underground) waters but excludes (clause 4(1)):

- a) water within the pipes and closed tanks of a water reticulation system; and*
- b) water within a sewage disposal system or wastewater management system; and*
- c) water within a closed tank constructed of or lined with material impervious to water; and*
- d) water within a private or public swimming pool.*

These waters were excluded because they are essentially isolated from the environment and can involve some form of water treatment. However, once the water leaves these facilities it is covered by the policy.

Clause 4(2) excludes the discharge of clean stormwater into any waters from the application of the policy.

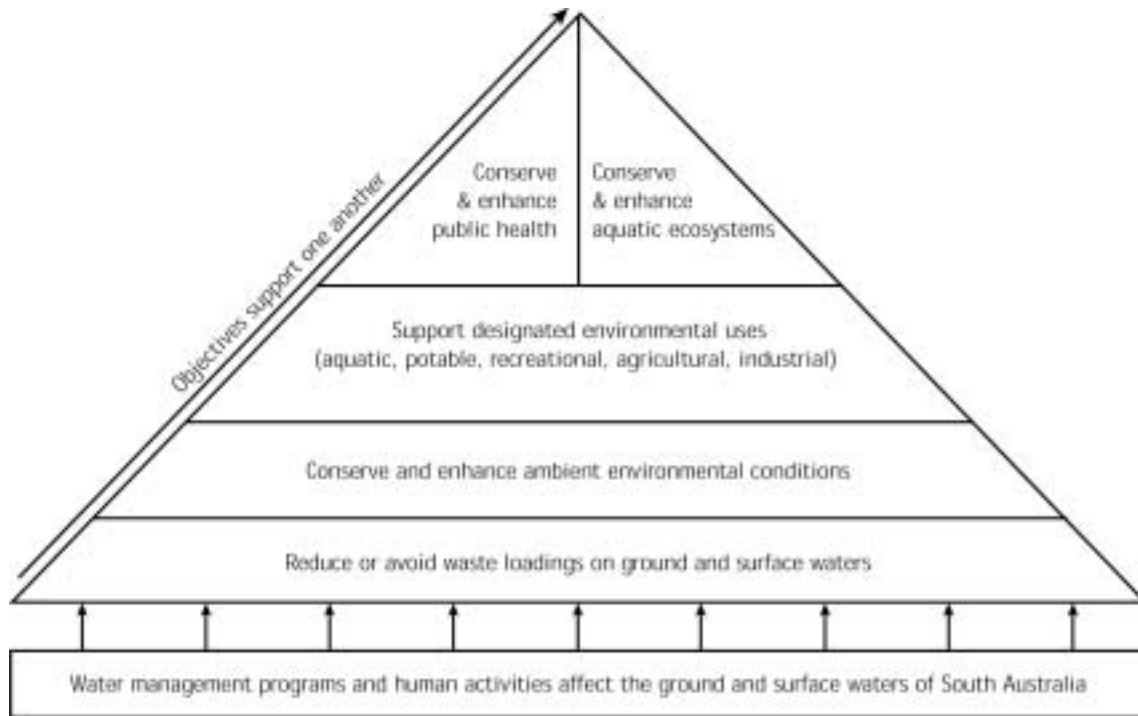


Figure 1 Supporting framework for the objectives of the policy

2.4 Part 3: Setting water quality objectives

Water quality objectives for water bodies are an important aspect of the Water Quality Policy. Setting these objectives involves a number of steps, the end result being a set of water quality values, or criteria, that must not be exceeded. It is an offence under the policy if the receiving water quality objectives are exceeded as a result of a discharge or, if the receiving water quality is already in excess of the objectives, for it to be further exceeded (clause 13). For some substances, such as dissolved oxygen, a minimum level must be maintained; for others, such as pH, the discharge must be within a specified range.

The steps involved in setting the water quality objectives entail:

- setting the environmental values that are required to be protected
- determining water quality characteristics that are important for these values
- setting criteria for each characteristic that adequately protect each environmental value
- choosing the most stringent set of criteria for the environmental values applicable to each water body.

This process is a key component of the National Water Quality Management Strategy (*Policy and Principles: A Reference Document*, 1994, ANZECC/ ARMCANZ).

The following subsections describe each of these steps.

2.4.1 Environmental values

Environmental values are particular values or uses of water that are conducive to a healthy ecosystem and also contribute to public benefit, welfare, safety and health. These environmental values require protection from the effects (both real and potential) of pollution, waste discharges and waste deposits if they are to be maintained.

In line with the National Water Quality Management Strategy, the policy recognises that the protected environmental values or uses are:

- Aquatic ecosystem (fresh waters and marine waters)
 The environmental value of aquatic ecosystems includes their ecological integrity and the associated native flora and fauna. Preserving these features involves protecting the ability of the water to support and maintain a balanced community of organisms comparable with that of a natural habitat.
- Potable use
 The environmental value of potable use is water intended for human consumption (drinking and domestic use).
- Recreation and aesthetics (primary contact, secondary contact and aesthetics)
 The environmental value of recreational water quality and aesthetics includes primary and secondary contact and visual use. Primary contact covers activities that involve full body contact with the water such as swimming, surfing, diving, and water skiing. Secondary contact involves partial body contact such as wading, paddling by children, boating and fishing where the probability of swallowing water is unlikely. Aesthetic (visual) use does not involve physical contact with the water but covers the visual appearance and enjoyment of the water.
- Agriculture/aquaculture (including irrigation, livestock)
 The environmental values of agriculture and aquaculture cover the quality of water required to support healthy and wholesome crops, livestock, and aquaculture (including fish and crustacea) that are grown for human consumption.
- Industrial use
 The environmental value of industrial use covers incorporation of water into any industrial process, such as bottled water or beverages, and includes activities such as cooling, heating, washing and evaporation (for example, salt production). This does not involve the discharge of waters, but rather their use.

The determination of environmental values for a particular water body or segment of the coast is an integral part of the Water Quality Policy. A given water body may have none, one, a number, or all of these values.

In the absence of specific values being set for a particular water body or segment of the coast, the Water Quality Policy sets protected environmental values for all surface and ground waters as shown in Table 1. These are known as default values because they apply initially until they are reviewed and replaced. This does not necessarily mean that these water bodies currently support the designated environmental value listed in Table 1.

The purpose of this classification is to protect all our water bodies from waste discharges containing toxic or pathogenic substances, not to restrict their legitimate use. If default protection did not apply initially, and each water body had to be assessed on its merits before protection applied, then waste discharges could cause contamination before an assessment was undertaken and thereby diminish the environmental values that might otherwise apply.

Table 1 Protected environmental values

Water body	Aquatic ecosystem		Recreation & aesthetics			Potable	Agriculture			Industrial
	fresh	marine	primary contact	secondary contact	aesthetic		irrigation	livestock	aquaculture	
Marine & estuarine waters		x	x	x	x				x	x
Inland surface waters	x		x	x	x	x	x	x	x	x
Ground waters	x		x		x	x	x	x	x	x

(x denotes a protected environmental value)

Changing protected environmental values

Having assigned default protection to water bodies in the State, it is important that a mechanism is established to allow the protected environmental values for particular water bodies or segments of the coast to be altered over time. There may be instances when the default protected environmental values may not be appropriate for particular waters (for example, a shipping port within the confines of a port facility).

The Water Quality Policy provides for the default protected environmental values to be changed where this is appropriate (clauses 8(2) and 6(1)(c)). Waters where the default criteria no longer apply are to be specified in Table 2 of Schedule 1 to the policy.

Once the policy comes into operation, it is anticipated that changes to protected environmental values will mainly be proposed by bodies other than the Environment Protection Authority, such as local or regional groups during or following the preparation of an integrated environmental management plan (for example, a Catchment Water Management Plan or a Natural Resource Management Plan). The policy provides for the values to be changed in accordance with the process described in clause 6(3). Under these circumstances, the EPA will have an evaluating role to ensure that changes are justified, community consultation has been adequate, changes will not impact on environmental values that have been set elsewhere and that statutory requirements have been met.

Consultation undertaken by a body other than the EPA may be recognised by the EPA and used to support any recommendations made to the Minister to amend the policy. A reasonable starting point for an environmental value to be changed could, for example, involve the preparation of a regional or locally based environmental management plan that has included extensive community based consultation. Such a plan would need to clearly:

- define the geographic area within which the environmental values are to be changed
- demonstrate a clear and transparent justification for the proposed changes
- indicate whether environmental values set elsewhere would be impacted by the proposed changes
- provide a detailed explanation of the consultation process that has occurred including consideration of the feedback resulting from the consultation
- provide other relevant documentation that would be sufficient to satisfy the EPA that a change to protected environmental values is justified.

Determining appropriate environmental values should be an open and transparent process involving statutory authorities, local and State agencies, industry groups, regional groups, the local community, interested parties and the EPA. It is envisaged that the default

environmental values will be a starting point for negotiations, with the environmental management plans the means by which the community and others are informed of proposed changes and are able to contribute to the process.

Endorsement of changes to protected environmental values by the EPA will be subject to the following considerations:

- all reasonable measures (including public consultation) having been taken to consult with agencies, organisations and the community affected by the change
- the proposed changes not conflicting with protected environmental values for other water bodies or segments of the coast which may be impacted in some way
- sufficient information being provided to justify a change to the protected environmental values.

When the EPA is satisfied that an amendment is justified, a recommendation will be made to the Minister to vary the protected environmental value by notification in the Government Gazette pursuant to section 32(1)(c) of the Act. The EPA cannot make a recommendation for amendment unless it has (clause 6(3)):

- developed a proposal for the amendment, taking into account, where relevant, the principles set out in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 published by ANZECC/ ARMCANZ, as in force from time to time, or in any guidelines substituted for those guidelines
- produced a written proposal, clearly setting out the purpose and likely impact of and reasons for the proposed amendment
- consulted with relevant organisations and industries and the community likely to be affected by the proposed amendment
- given consideration to and informed the Minister of the views expressed by those consulted.

Amended environmental values for the particular water bodies or segments of the coast specified will be listed in Table 2 of Schedule 1 of the policy and come into effect on the date specified in the Government Gazette.

2.4.2 Water quality characteristics and criteria

A water quality characteristic is a chemical, physical, microbiological or biological measure that can be used to describe the water quality condition. Examples of characteristics include pH, salinity, faecal coliforms, chlorophyll, colour, and turbidity.

Water quality criteria are values that have been set for each characteristic which, if not met, may prejudice the ability to achieve or maintain the designated environmental values. Criteria are usually set by national bodies after an exhaustive process of review of the scientific literature, followed by extensive public comment and consultation. Criteria have been established by these national bodies for many water quality characteristics covering all of the protected environmental values.

Table 1 of Schedule 2 of the Water Quality Policy lists water quality criteria for each environmental value. The criteria listed in this Table have been restricted to toxicants (including microbiological indicators of faecal contamination) and indicators of pollution and have been adopted from nationally accepted criteria. These criteria have been largely sourced from the following documents:

- *Australian Water Quality Guidelines for Fresh and Marine Waters*, ANZECC 1992;

- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, ANZECC/ARMCANZ, 2000;
- *Australian Drinking Water Guidelines*, NHMRC/ARMCANZ, 1996;
- *Australian Guidelines for Recreational Use of Waters*, NHMRC, 1990.

When these national criteria are reviewed and updated, the values listed in the table can be amended through notification by the Minister in the Government Gazette pursuant to section 32(1)(c) of the Act.

The National Water Quality Management Strategy stresses that, although these criteria are a useful starting point for the protection of each environmental value, site-specific information should be used to set appropriate criteria, which could be higher or lower than the national criteria.

Specifying particular criteria for specific water bodies

In some instances it may be appropriate to set criteria for certain characteristics for particular water bodies that are more or less stringent than those contained in Table 1 of Schedule 2 of the policy. This may be necessary to protect a particularly sensitive aquatic environment or to make allowances for local factors.

For example, water quality monitoring has shown that copper concentrations in marine and inland waters of South Australia are generally greater than the national criteria for the protection of aquatic ecosystems (0.005 mg/L) but less than 0.01 mg/L. For this reason the water quality criterion for copper has been set at this slightly higher value.

The policy makes provision for such changes to occur by listing the specific criteria for a particular water body in Table 2 of Schedule 2 of the policy. Where this occurs these criteria apply in place of those listed in Table 1 of Schedule 2.

The Minister may amend the criteria listed in Table 2 of Schedule 2 by notification in the Government Gazette pursuant to section 32(1)(c) of the Act. Recommendations to amend the criteria in Table 2 of the policy cannot be made by the EPA to the Minister unless certain requirements are met (clause 6(3)).

2.4.3 Discharge limits for listed activities (Schedule 3)

Whereas Table 2 of Schedule 2 allows the Minister to set specific criteria for a particular body of water, Clause 16 of the policy allows the discharge limits for an activity listed in Schedule 3 to be set in the schedule.

At present, there are no activities or criteria listed in the schedule. It is envisaged that this provision may be applied, for example, to protect particular water bodies from the accumulated impact from a number of discharges by restricting the amount that can be discharged from each source.

2.4.4 Water quality objectives

Water quality objectives are the most stringent water quality criteria that apply for each characteristic across each protected environmental value.

For example, suppose that the protected environmental values for a water body are potable use and protection of the aquatic ecosystems (fresh). The water quality objective for say, arsenic, would be 0.007 mg/L as this is the lower of the two criteria values for arsenic (0.050 mg/L for aquatic ecosystem protection and 0.007 mg/L for potable water use). The Water Quality Policy makes it an offence to discharge waste into the water body that results in the concentration of arsenic in the receiving water exceeding 0.007 mg/L. If the background

concentration was already in excess of this concentration, it is an offence to dispose of waste that results in the concentration in the receiving waters being increased.

2.5 Specific requirements and offences

The Water Quality Policy sets out specific obligations and requirements that must be complied with as mandatory provisions and may be enforced on people and businesses by authorised officers in several ways:

- by issuing an Environment Protection Order (EPO) to gain compliance with the policy
- by issuing an expiation notice (\$300) for a breach of a mandatory policy
- by issuing an EPO and also issuing an expiation notice for a breach of a mandatory policy
- on failure to comply with an EPO, by issuing an expiation notice
- by prosecuting through the Court (maximum penalty \$30,000).

Non-compliance with a mandatory provision is an offence. Depending on the seriousness of the offence the EPA may choose to prosecute through the court or take other options as listed above. Fines may apply if you have been shown to be negligent, even if the offence was accidental.

Failure to comply with specific requirements in a code of practice or guideline linked to the Water Quality Policy may result in the issuing of an EPO. An EPO may require that a person or agency take specified action within a specified period. Authorised officers under the policy include the Environment Protection Authority, local councils, and other regional government authorities including catchment water management boards.

2.6 Codes of Practice and Guidelines

An important feature of the Water Quality Policy is the link between the policy and relevant codes of practice or guidelines. The relationship between the Act, environment protection policies, and codes of practice or guidelines is shown schematically in Figure 2.

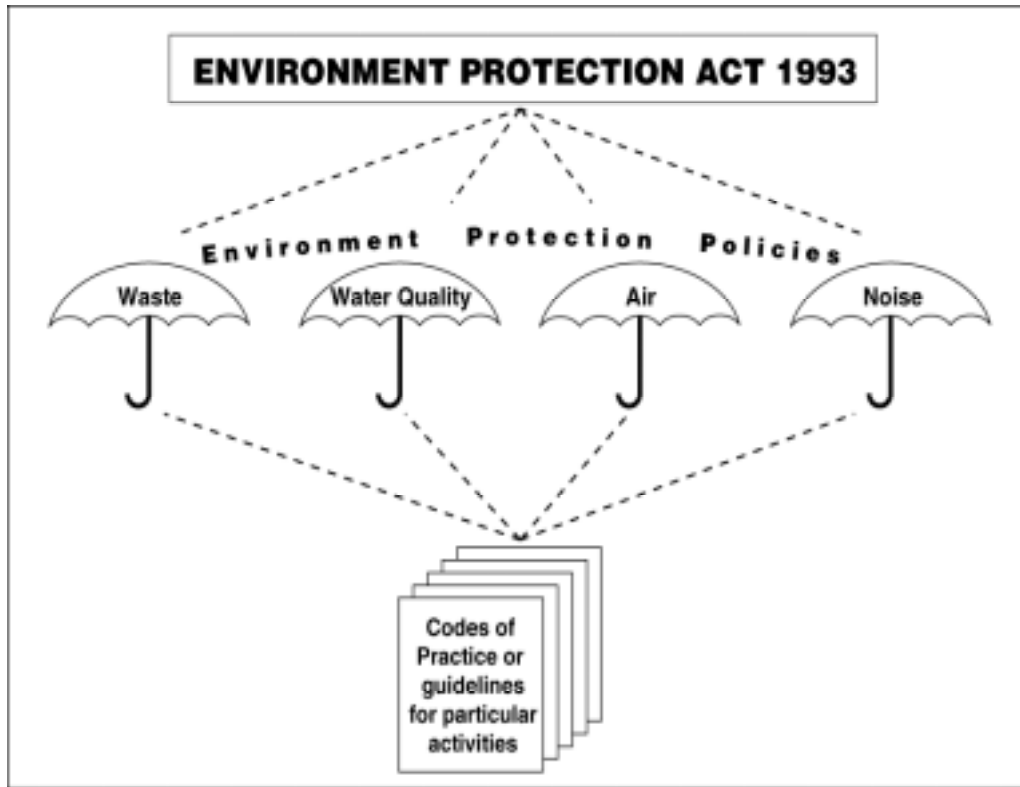


Figure 2 Relationship between the Environment Protection Act, environment protection policies and codes of practice or guidelines

The Water Quality Policy uses codes of practice or guidelines as a means of describing how a person undertaking a particular activity can comply with their general environmental duty. Failure to comply with a code listed in the policy is not an offence; however, compliance with specific requirements of a code can be enforced through the issuing of an Environment Protection Order.

Typically, a code of practice or guideline listed in the policy contains specific requirements, advice, and information. A code or guideline will not contain offence provisions.

The specific requirements in a code describe what a person undertaking a particular activity must or must not do in order to comply with the requirements of the Water Quality Policy (and other Environment Protection Policies as appropriate) and the Act generally. These specific requirements are usually outcome based and not prescriptive. For example, the policy states that a person responsible for a milking shed must not dispose of dairy waste into a watercourse. A milking shed code of practice may provide a number of options for alternative means of disposal. There may be many ways 'how to do it' and it may not be appropriate to specify a particular way so long as the outcome is achieved.

A code also provides advice and information on how a person undertaking a particular activity can meet the specific requirements and operate in a 'best environmental practice' manner. This may include, for example, advice on how to treat wastewater, with a description of different options that could be used. Using the advice provided should ensure that the specific requirements are met, but it is recognised that there may be instances where alternative approaches can be used to the same effect, or that circumstances may dictate that a higher level of care is required. For this reason, the advisory sections of a code or guideline are not intended to be enforceable provided the outcome is achieved.

The codes linked to the Water Quality Policy fall into three categories:

- codes that were translated from existing policies repealed by the Water Quality Policy (Milking Shed Effluent Policy and Vessels on Inland Waters Policy)
- those which are prepared by the EPA (in consultation with stakeholders)
- those which are prepared by other bodies (which may include input from the EPA but where the EPA is not specifically listed as joint publisher).

Part 5 of the Water Quality Policy (Management and control of diffuse sources of pollution) refers to a number of codes prepared and published by the EPA. In developing these codes, the EPA has undertaken comprehensive consultation with key stakeholders and the general community. Any amendments to these codes would also be subject to wide consultation. The codes and guidelines linked to the Water Quality Policy are listed in Table 2.

Table 2 Codes and guidelines linked to the Water Quality Policy, published by the Environment Protection Authority and other bodies

<p>Published by the Environment Protection Authority</p> <p><i>Code of Practice for Milking Shed Effluent, 2003, EPA</i></p> <p><i>Code of Practice for Vessels on Inland Waters, 2003, EPA</i></p> <p><i>Guidelines for the Establishment of Intensive Piggeries in South Australia, 1998, PIRSA/EPA, SAFF/MRDB.</i></p> <p><i>Guidelines for Establishment and Operation of Cattle Feedlots in South Australia, 1994, EPA/PIRSA.</i></p> <p><i>Guidelines for Major Solid Waste Landfill Depots, 1998, EPA</i></p> <p><i>South Australian Biosolids Guidelines for the Safe Handling, Reuse or Disposal of Biosolids, 1996, EPA</i></p> <p><i>South Australian Reclaimed Water Guidelines, 1999, EPA/DHS</i></p> <p><i>Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government Agencies, 1997, EPA</i></p> <p><i>Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry, 1999, EPA</i></p> <p>Published by other bodies</p> <p><i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 2000, ANZECC/ARMCANZ</i></p> <p><i>Code of Practice for Antifouling and In-Water Hull Cleaning and Maintenance, 1997, ANZECC</i></p>
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2.6.1 New codes and changes to existing codes

Codes and guidelines referred to in the policy can change from time to time as new technology becomes available, and new codes can be developed as the need arises. It is important that these changes or additions be incorporated into the policy in an effective manner. If the full process for modifying a policy were to be followed every time a code was changed or added, it would take 18 months or more, with very substantial resource implications, for the changes to be effected. This would be a very significant disincentive to make required changes.

Most of the codes or guidelines referred to in the policy apply to particular activities. The policy therefore allows codes or guidelines listed in Division 2 of Part 4 (Additional obligations relating to particular activities) to be changed, or new ones to be added, using the fast-track process as provided in section 32(1)(c) of the Act. In using this provision, however, the policy requires consultation with relevant organisations, industries, and the community likely to be affected by any change (clause 6(3)).

2.7 Point source pollution management and control

Part 4 of the Water Quality Policy deals with the management and control of point source pollution. This Part contains sections covering obligations to avoid:

- discharging waste into waters (clause 11)
- causing certain environmental damage (clause 12)
- contravening water quality criteria (clause 13)
- exceeding discharge limits fixed by the water quality EPP (clause 16)
- discharging or disposing of listed pollutants into waters or onto certain land (clause 17)
- discharging waste into bores, mine shafts, etc (clause 19).

There are clauses dealing with exemptions from meeting water quality criteria for surface water mixing zones (clause 14) and groundwater attenuation zones (clause 15). In addition, Part 4 contains requirements for wastewater storage lagoons (clause 18).

Part 4 also contains specific requirements with mandatory provisions for controlling point sources of pollution associated with particular activities (see 2.14).

2.8 Setting discharge limits

Clause 16 of the Water Quality Policy enables the EPA to set discharge limits for particular activities. This provision complements the setting of water quality objectives referred to earlier. Water quality objectives apply to the receiving waters, whereas this section applies to the discharge before it is diluted by receiving waters. Discharge limits can apply to all waters or particular water bodies.

The discharge limits can be in the form of a concentration or a rate—for example, the load in kilograms of material discharged in a year. Discharge limits can be used, for example, to control the discharge of heavy metals that can bio-accumulate up through the food chain, or to control the discharge of nutrients that can result in algal blooms but where the concentration in receiving waters is below water quality objectives.

Where discharge limits are set, they are listed in Schedule 3 of the policy. Amendments to Schedule 3 can be made by the Minister by notice in the Government Gazette (clause 6).

There are restrictions placed on the EPA to granting exemptions from this requirement of the policy if to do so would (clause 16(2)):

- prejudice the water quality objectives for waters inside or outside the area of water to which the proposed exemption would apply; or*
- be inconsistent with a plan adopted under Part 7 of the Water Resources Act 1997.*

2.9 Listed pollutants

Clause 17 of the Water Quality Policy makes it an offence to discharge or dispose of listed pollutants into waters. This includes discharge onto land where it is 'reasonably likely' the pollutants would be carried by natural processes—seepage, infiltration, wind or rain—into waters.

The pollutants are listed in Schedule 4 of the Water Quality Policy and include such things as engine coolant, paint and paint scrapings, sewage and timber preservatives.

Clause 17(2) clarifies under what circumstances certain pesticides or herbicides may be used in waters.

Amendments to Schedule 4 of the policy can be made by the Minister by notice in the Government Gazette (clause 6).

2.10 Surface water mixing zones

It is recognised that under some circumstances disposal of waste to a surface water body may be the only option available, or may represent a lower net environmental risk than other means of disposal. In these circumstances it may be appropriate to allow a discharge but only within a certain area or mixing zone.

A mixing zone is a defined area where water quality objectives for the receiving waters may not be met. The water quality objectives must, however, be met outside of the mixing zone. The EPA can grant an exemption from meeting water quality objectives within the mixing zone, but clause 14 of the Water Quality Policy places certain obligations on the EPA when granting these exemptions. For example, the EPA cannot grant a mixing zone if the water within the proposed mixing zone is regularly used to a significant extent for primary contact recreation (clause 14(2)(b)(i)).

2.11 Groundwater attenuation zones

In some cases the impact of certain ground water pollutants can be diminished over time due to natural processes within the aquifer. Chemical, physical and microbiological processes can occur to ameliorate the harm or potential harm caused by these pollutants.

Attenuation zones can apply in a similar way to that in which mixing zones apply to surface waters. Water quality objectives are not required to be met within the defined attenuation zone but would apply outside the attenuation zone. Clause 15 of the Water Quality Policy places certain obligations on the EPA when granting an attenuation zone. For example, the EPA cannot grant an attenuation zone if the zone's operation is unsustainable (Clause 15(2)(d)(i)).

2.12 Construction of new wastewater storage lagoons

The generally dry climate of South Australia means that high evaporation rates and opportunities to irrigate can be effective ways to reduce or reuse wastewater. Lagoons can be used for evaporation, or as a means of storage during wetter months of the year when reuse is perhaps not possible.

Wastewater storage lagoons can, however, cause problems. They can generate odours offensive to nearby residents. Problems can also occur if they are inundated or breached by flood waters, or if they leak or overflow.

The Water Quality Policy therefore places restrictions on the construction of new lagoons in Water Protection Areas (as proclaimed under the Environment Protection Act) and on the River Murray flood plain if the lagoon is to hold a major pollutant listed in Schedule 5 of the policy (clause 18). The restriction is in the form of the need to obtain an authorisation (exemption) from the EPA.

The requirements do not apply to existing wastewater storage lagoons or overhead tanks or devices that are used to collect, but not store, pollutants. Problems caused by existing wastewater storage lagoons will be dealt with in the same way as other wastewater discharges.

2.13 Discharge of waste into bores, mineshafts, etc.

Discharge of waste or pollutants listed in Schedule 4 into bores, mineshafts and other structures where it may enter underground waters and cause significant water quality problems is prohibited by clause 19 of the Water Quality EPP.

The Water Quality Policy does not explicitly deal with remediation issues associated with pollution of underground waters. These issues are often very complex and need to be tackled on a case-by-case basis in consultation with the Environment Protection Authority. The policy does provide some tools to assist with this process, such as the use of attenuation zones and changing the environmental values and water quality objectives that need to be met.

2.14 Additional obligations relating to particular activities

Division 2 of Part 4 of the policy contains a number of specific clauses that relate to activities likely to have a wastewater discharge and therefore regarded as environmentally significant. The activities covered are:

- abattoirs, slaughter houses and poultry processors
- applying antifoulants
- cattle feedlots
- composting works
- concrete batching works
- extractive industries
- fish processing works
- milking sheds
- milk processing works
- piggeries
- saleyards
- septic tank effluent disposal schemes
- septic tanks
- sewage treatment works
- tanneries and fellmongers
- vessels on inland waters
- waste depots
- wineries and distilleries.

These clauses vary from activity to activity, but generally require that the operator effectively manage wastewater and not discharge waste into waters, or onto land where it is reasonably likely to enter waters by seepage, infiltration or carriage by wind or rain.

Section 2.6 of this explanatory report explains how the policy is linked to industry-specific codes of practice or guidelines. These codes and guidelines are mandatory and provide advice on how the operator can meet their environmental obligations.

The onus is on the operator to ensure that wastewater does not enter any waters, whether from the operator's land or from other land where it has been lawfully deposited. To this end, the Water Quality Policy requires activities listed in this section to install a wastewater management system. However, for most of these operations the policy defers compliance with the prescribed requirements for one year from the date of commencement of the policy. This transitional period does not apply to activities such as milking sheds, which are currently subject to the regulation through the *Environment Protection (Milking Shed Effluent Management) Policy 1997*. Where a particular operator is experiencing difficulties in complying with the obligation within the prescribed time period, the operator may apply to the EPA for an exemption from the particular requirement for an additional period of time.

2.15 Diffuse source pollution management

It is recognised that diffuse sources of pollution can be a significant problem. Diffuse sources are, however, more difficult to deal with than point sources.

The policy aims to reduce and manage waste discharges from diffuse sources of pollution through the development and implementation of best practice environmental management. This will be done by the adoption of codes of practice or guidelines for a range of activities.

The EPA intends to progressively develop additional codes of practice or guidelines for particular activities, in conjunction with the stakeholders, where they can lead to improved outcomes for the environment.

2.16 Exemption conditions requiring monitoring and reporting

Part 6 of the Water Quality Policy requires the EPA to attach a condition that provides for a monitoring and reporting program for an exemption relating to the discharge of waste or pollutants into waters.

The EPA may also require independent checking and verification of the program.

Environment Protection Authority


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