



Victoria Government Gazette

No. S 107 Wednesday 4 June 2003
By Authority, Victorian Government Printer

SPECIAL

Environment Protection Act 1970 Act No. 8056/1970

VARIATION TO STATE ENVIRONMENT PROTECTION POLICY (WATERS OF VICTORIA)

Order in Council

The Lieutenant-Governor as the Governor's deputy, with the advice of the Executive Council, under section 16(2) of the **Environment Protection Act 1970** and on the recommendation of the Environment Protection Authority declares the variation to State environment protection policy (Waters of Victoria) contained in the Schedule to this Order.

Dated 3 June 2003

Responsible Minister
JOHN THWAITES MP
Minister for Environment

BRIAN TUKE
Acting Clerk of the Executive Council



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**Environment Protection Act 1970
Act No. 8056/1970**

**VARIATION TO STATE ENVIRONMENT PROTECTION POLICY
(WATERS OF VICTORIA)**

SCHEDULE TO THE ORDER IN COUNCIL

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 13. Revocation of State environment protection policy No. W – 28A (The Waters of the Dandenong Valley).
- PART 1 - PRELIMINARY**
2. **Purposes of this Order**
The purposes of this Order are to:
 - (1) vary the State environment protection policy *No. S-13 (Waters of Victoria)* 1988 by revoking clauses 1 to 54 and inserting revised clauses 1 - 58, annexes and Schedules A, B, F, F5, F6 and F7; and
 - (2) revoke the redundant Schedules A, B, C, D, E, F1, F2, F4 and G to the *State environment protection policy No. S-13 (Waters of Victoria)* 1988 and other identified redundant state environment protection policies.
 3. **Commencement**
This Order will come into operation upon publication in the Government Gazette.

PART 2 – INSERTION OF STATE ENVIRONMENT PROTECTION POLICY (WATERS OF VICTORIA)

4. Insertion of varied *State environment protection policy (Waters of Victoria)*, annexes and Schedules A, B, F, F5, F6 and F7.

The *State environment protection policy No. S-13 (Waters of Victoria)* 1988 is varied by inserting the following:

Preamble

Victoria's surface water environments form the basis of life and prosperity. Healthy water environments provide food and shelter for aquatic plants and animals, enable simple pleasures such as swimming and fishing and provide necessities such as water for drinking, agriculture and industry. They also enable continued indigenous and non-indigenous cultural and spiritual practices associated with water. Without healthy water environments, these uses and values that Victorians want, are at risk.

To secure a sustainable future for Victorians, we need to protect and rehabilitate the aquatic habitats of our rivers, lakes, wetlands, estuaries, bays and oceans, and the social and economic values they support. To do so, we need to continuously reduce our impact on surface water environments, by using land and water resources within their capabilities, and by avoiding and re-using wastes, particularly those generated from everyday activities.

This Policy provides a legal framework for State and local government agencies, businesses and communities to work together to protect and rehabilitate Victoria's surface water environments. Importantly, it supports Victoria's catchment and coastal management processes and associated community decision-making they support. This support is essential, as we all play a direct role in protecting our environment for our future.

PART I - PRELIMINARY

1. Title

This Policy may be cited as the *State environment protection policy (Waters of Victoria)* and is referred to below as 'the Policy'.

2. Context

The Policy:

- (1) applies to all businesses, non-government agencies, community groups, individuals and State and local government agencies that use, plan, manage or derive benefit from Victoria's surface waters;
- (2) applies to each person responsible for making legal decisions in relation to Victoria's surface waters; and
- (3) is an instrument of the **Environment Protection Act 1970**, and is administered by the Environment Protection Authority, which is responsible for ensuring its overall implementation.

3. Definitions

In the Policy, unless inconsistent with the context or subject matter, or with the definitions of the **Environment Protection Act 1970**:

“**Aquatic ecosystem**” means the community of organisms living within or immediately adjacent to water (including riparian and foreshore zones).

“**Artificial**” means an asset such as a waste treatment system, wetland, channel or drain that has been constructed for a specific purpose. An artificial asset does not include an asset that has resulted from the modification of surface water environments.

“**Audit**” means the definition of 'environmental audit' in the **Environment Protection Act 1970**.

“**Australian and New Zealand Guidelines for Fresh and Marine Water Quality**” (2000) means the guidelines developed by the Australian and New Zealand

Environment Conservation Council and the Agricultural and Resource Management Council of Australia and New Zealand.

“**Background level**” means the level of an indicator in surface waters or their aquatic ecosystem, outside the influence of any waste containing a measurable level of that indicator.

“**Best practice**” means the best combination of techniques, methods, processes or technology used in an industry sector or activity that demonstrably minimises the environmental impact of that industry sector or activity.

“**Beneficial use**” means a use of the environment which is conducive to public benefit, welfare, safety, health or aesthetic enjoyment and which requires protection from the effects of waste discharges. A full definition is listed in the **Environment Protection Act 1970**.

“**Floodplain**” means an area of land inundated with an average flood recurrence interval of one hundred years.

“**Indicator**” means a measurement that provides information on the environmental quality of an environment.

“**Intensive agricultural industry**” means an operation where animals are concentrated for the purpose of agricultural production (including piggeries, poultry farms, feedlots and feedpads, fish farms and aquaculture, milking sheds and associated stock yards and laneways), and intensive horticultural operations (including plant nurseries and market gardens).

“**Largely un-modified ecosystem**” means an aquatic ecosystem where human activity has had a minimal impact and consequently it is largely undisturbed.

“**Highly modified ecosystem**” means an aquatic ecosystem which has been significantly disturbed as a result of human activity.

“**Minimise**” means the adoption of measures (including those listed in the waste hierarchy), which reduce to the maximum extent practicable the impact of an activity or waste on beneficial uses.

“**Mixing zone**” means an area contiguous to a licensed waste discharge point and specified in that licence, where the receiving environmental quality objectives otherwise applicable under the Policy do not apply to certain indicators as specified in the licence. This means that some or all beneficial uses may not be protected in the mixing zone.

“**Objective**” means the concentration or level of an indicator that describes the environmental quality required to protect designated beneficial uses.

“**Protection agency**” means the definition of ‘protection agency’ in the **Environment Protection Act 1970**.

“**Regional catchment strategy**” means the definition of ‘regional catchment strategy’ in the **Catchment and Land Protection Act 1994** and includes Government endorsed sub-strategies and plans.

“**Riparian**” means inhabiting or situated on a river or stream bank or where vegetation interacts with surface waters.

“**Slightly to moderately modified ecosystem**” means an aquatic ecosystem where human activity has caused a measurable disturbance;

“**Surface water**” means the definition of ‘water’ in the **Environment Protection Act 1970**. For the purposes of this Policy, surface waters excludes groundwaters and waters within tanks, artificial waste treatment systems, reticulated water supply distribution systems, off-stream private dams, and piped and underground drains.

“**Waste**” means the definition of ‘waste’ in the **Environment Protection Act 1970**.

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PART II: POLICY PURPOSE, PRINCIPLES AND INTENT

5. Policy purpose

The purpose of the Policy is to help achieve sustainable surface waters by:

- (1) setting out the environmental values and beneficial uses of water that Victorians want, and the environmental quality required to protect them; and
- (2) setting, within a 10 year timeframe, goals for protection agencies, businesses and communities and means by which they can be met.

6. Policy principles

The following principles form the basis of the Policy and should be used to guide decisions about the protection and management of Victoria's surface waters.

- (1) *Principle of integration of economic, social and environmental considerations.*
 - (a) Sound environmental practices and procedures should be adopted as a basis for ecologically sustainable development for the benefit of all human beings and the environment.
 - (b) This requires the effective integration of economic, social and environmental considerations in decision-making processes with the need to improve community well-being and the benefit of future generations.
 - (c) The measures adopted should be cost-effective and in proportion to the significance of the environmental problems being addressed.
- (2) *The precautionary principle.*
 - (a) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
 - (b) Decision making should be guided by—
 - (i) a careful evaluation to avoid serious or irreversible damage to the environment wherever practicable; and
 - (ii) an assessment of the risk-weighted consequences of various options.
- (3) *Principle of intergenerational equity.* The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- (4) *Principle of conservation of biological diversity and ecological integrity.* The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making.
- (5) *Principle of improved valuation, pricing and incentive mechanisms.*
 - (a) Environmental factors should be included in the valuation of assets and services.
 - (b) Persons who generate pollution and waste should bear the cost of containment, avoidance and abatement.
 - (c) Users of goods and services should pay prices based on the full life cycle costs of providing the goods and services, including costs relating to the use of natural resources and the ultimate disposal of wastes.
 - (d) Established environmental goals should be pursued in the most cost effective way by establishing incentive structures, including market mechanisms, which enable persons best placed to maximise benefits or minimise costs to develop solutions and responses to environmental problems.
- (6) *Principle of shared responsibility.*
 - (a) Protection of the environment is a responsibility shared by all levels of government and industry, business, communities and the people of Victoria.
 - (b) Producers of goods and services should produce competitively priced goods and services that satisfy human needs and improve quality of life while progressively reducing ecological degradation and resource intensity throughout the full life cycle of the goods and services to a level consistent with the sustainability of biodiversity and ecological systems.

- (4) has been developed to reflect relevant national, Murray Darling Basin and State legislation and policies, and provide further guidance to the catchment and coastal management processes;
- (5) clarifies the responsibilities of Victorian State and local government agencies, businesses and communities in achieving these outcomes; and
- (6) provides an agreed structure for the implementation of the **Environment Protection Act 1970**, as it applies to surface water environments, including the use of regulation and other statutory and non-statutory tools.

PART III: POLICY AREA AND SEGMENTS

8. Policy area

The policy area is represented in Figure 1 and includes all Victorian surface waters and the catchments that supply them.

For the purpose of the Policy, surface waters excludes groundwaters and waters within artificial wastewater treatment systems, reticulated water supply distribution systems, off-stream private dams, and piped or underground drains.

While the Policy's beneficial uses and environmental quality objectives apply to surface waters, the provisions of the attainment program apply to both surface waters and their catchments, and to activities undertaken within them that may impact on surface waters.

Unless otherwise stated in a State environment protection policy, the provisions of this Policy must be observed throughout the policy area.

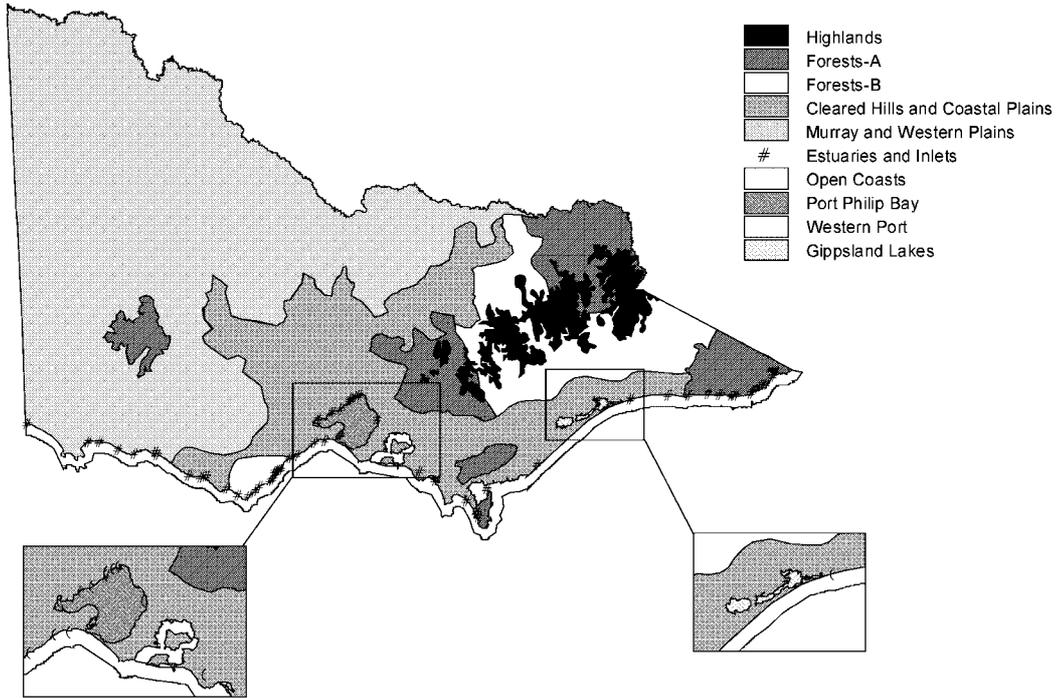
9. Segments

The following segments of the surface water environment are outlined in the policy area and are represented in Figure 1 and described in Annex A.

- (1) Aquatic Reserves segment;
- (2) Wetlands and Lakes segment;
- (3) Rivers and Streams segments –
 - (a) Highlands;
 - (b) Forests A;
 - (c) Forests B;
 - (d) Cleared Hills and Coastal Plains; and
 - (e) Murray and Western Plains.
- (4) Marine and Estuarine segments –
 - (a) Estuaries and Inlets;
 - (b) Open Coasts;
 - (c) Port Phillip Bay;
 - (d) Western Port; and
 - (e) Gippsland Lakes.

The Environment Protection Authority will determine to which segment any surface water belongs and will provide information to stakeholders on the precise location of any segment boundary.

Figure 1: Boundaries of the policy area and segments.



PART IV: BENEFICIAL USES**10. Beneficial uses**

A beneficial use is defined in the **Environment Protection Act 1970** and includes a current or future environmental value or use of surface waters that communities want to protect. A beneficial use does not prohibit or permit the use of surface waters for any particular purpose, but requires surface waters to be of a suitable quality and quantity to support that use or value.

Beneficial uses for each segment of the water environment are listed in Table 1 and marked with a "✓".

The variation of environmental quality of surface waters on a state-wide scale will mean that:

- (1) some beneficial uses are currently protected and will remain protected;
- (2) some beneficial uses may not be fully attained in all segments within the 10-year lifetime of the Policy. In these cases, the regional catchment and coastal management processes will set regional targets to be achieved over the Policy's life, as provided for in clauses 15, 16 and 24;
- (3) some beneficial uses in some surface waters may not be fully attained due to extensive environmental modification. This should be taken into account when developing and prioritising actions to improve environmental quality.

Beneficial uses are protected except:

- (1) in circumstances where the background level would not provide for their protection;
- (2) in artificial stormwater drains, artificial agricultural drains, artificial irrigation channels and drains or artificial wetlands (see clauses 46 and 51). These artificial environments need to be managed for the purposes for which they were constructed and must be designed and managed so that they are not harmful to humans or have unacceptable impacts on animals, and so that their impact on surface waters is minimised. Although beneficial uses are not protected in these artificial environments, it is not acceptable to dump or illegally discharge wastes into them.
- (3) where otherwise specified in the Policy (see clause 48).

Table 1: Beneficial uses to be protected.

BENEFICIAL USES	Aquatic Reserves	Wetlands and Lakes	RIVERS & STREAMS					MARINE & ESTUARINE					
			Highlands	Forests-A	Forests-B	Cleared Hills & Coastal Plains	Murray & Western Plains	Estuaries & Inlets	Open Coasts	Port Phillip Bay	Western Port	Gippsland Lakes	
Aquatic ecosystems that are:													
largely unmodified	✓		✓	✓	✓				✓		F6	F8	F3
slightly to moderately modified		✓				✓	✓	✓					
highly modified													
Water suitable for:													
primary contact recreation	✓	✓	✓	✓	✓	✓	✓	✓	✓				
secondary contact recreation	✓	✓	✓	✓	✓	✓	✓	✓	✓				
aesthetic enjoyment	✓	✓	✓	✓	✓	✓	✓	✓	✓				
indigenous cultural and spiritual values	✓	✓	✓	✓	✓	✓	✓	✓	✓				
non-indigenous cultural and spiritual values	✓	✓	✓	✓	✓	✓	✓	✓	✓				
agriculture and irrigation		✓	✓	✓	✓	✓	✓	✓	✓				
aquaculture		✓	✓	✓	✓	✓	✓	✓	✓				
industrial and commercial use			✓	✓	✓	✓	✓	✓	✓				
human consumption after appropriate treatment		✓	✓	✓	✓	✓	✓	✓					
fish, crustacea & molluscs for human consumption		✓	✓	✓	✓	✓	✓	✓	✓				

F6 means refer to the beneficial uses set in the *SEPP (Waters of Victoria) – Schedule F6. Waters of Port Phillip Bay.*
 F8 means refer to the beneficial uses in the *SEPP (Waters of Victoria) – Schedule F8. Waters of Western Port and Catchment.*
 F3 means refer to the beneficial uses in the *SEPP (Waters of Victoria) – Schedule F3. Gippsland Lakes and Catchment.*

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PART V: ENVIRONMENTAL QUALITY OBJECTIVES AND INDICATORS**11. Environmental quality objectives and indicators**

Surface waters and their aquatic ecosystems need to be free of any substance at a level, or human impact, that would pose a risk to beneficial uses. Risks would be manifested, for example, through human health impacts, the increased occurrence of fish kills and algal blooms, excessive growth of aquatic plants, sedimentation, loss of biodiversity and environmental flows, loss of cultural and spiritual values, objectionable odours, colours, taints, visible floating material, foam, oil or grease or dirty water.

The environmental quality objectives describe the level of environmental quality needed, in most surface waters, to avoid risks to beneficial uses and to protect them. If an objective is not attained, the beneficial uses are likely to be at risk. The non-attainment of an objective will trigger further investigation to assess risks to beneficial uses. If a risk is posed to beneficial uses, mitigating actions (that are consistent with the attainment program) need to be implemented.

Environmental quality objectives and indicators specific to the policy area are described in Schedule A.

Although environmental quality objectives need to be attained as soon as practicable, the variation of environmental quality of surface waters on a State-wide scale will mean that:

- (1) the environmental quality of some surface waters will be better than the environmental quality objectives. In these cases, environmental quality should remain as close as practicable to background levels;
- (2) the environmental quality objectives for some surface waters may not be attained due to natural variation. In these cases, the background level becomes the environmental quality objective;
- (3) the environmental quality objectives may not be attained in all segments within the 10 year lifetime of the Policy. In these cases, regional targets need to be set for environmental rehabilitation (as outlined in clause 24);
- (4) the environmental quality objectives for some surface waters may not be attained due to extensive environmental modification. This should be taken into account when developing and prioritising actions to improve environmental quality and protect beneficial uses.

PART VI: ATTAINMENT PROGRAM**12. Practicability**

Over the lifetime of the Policy, environment management practices that effectively minimise environmental risks to beneficial uses need to be implemented for a range of activities. These may include the implementation of best practice if required to ensure effective environmental management.

This attainment program provides a series of environment management practices and actions that protection agencies, businesses and communities need to implement to improve environmental quality and help protect beneficial uses. Practices and actions included in the Policy need to be implemented on a priority basis to the extent practicable over its 10 year life, taking into account environmental, social and economic considerations.

KEY RESPONSIBILITIES FOR IMPLEMENTING THE POLICY

Communities, businesses and protection agencies, including catchment management authorities, regional coastal boards, water authorities, municipal councils and relevant State government agencies, have responsibilities to plan or manage Victoria's surface waters, and activities that impact on them, in an ecologically sustainable manner. To guide the protection of beneficial uses, clause 13 identifies general responsibilities for implementing the Policy and clauses 14 to 23 identify key responsibilities and goals that the Environment Protection Authority, key protection agencies, industries and communities should aim for over the 10 year lifetime of the Policy.

14 *S 107 4 June 2003**Victoria Government Gazette***13. General responsibilities for implementing the Policy**

While the Environment Protection Authority is responsible for ensuring the overall implementation of the Policy, its implementation on a daily basis is the shared responsibility of protection agencies, businesses and communities. Given this shared responsibility, EPA will work with protection agencies to, by January 2004, agree on State-wide priority programs to implement the Policy and improve environmental quality. The Policy's implementation on a regional basis will be primarily planned for through regional catchment strategies and, where relevant, coastal action plans.

To implement the Policy:

- (1) protection agencies need to ensure that statutory and strategic planning tools and decisions are consistent with the Policy;
- (2) protection agencies need to work with one another, and with businesses and communities to implement agreed environment improvement programs and actions;
- (3) relevant protection agencies and relevant businesses need to ensure the coordinated and quality controlled monitoring of ambient environmental quality and the impact of wastewater discharges on surface waters;
- (4) protection agencies and businesses need to include in their annual reporting processes actions taken to implement the Policy, so that the Environment Protection Authority can report to the Victorian community on policy implementation and its effectiveness in protecting beneficial uses;
- (5) protection agencies and businesses need to ensure that actions they take to implement the Policy are reviewed and periodically independently audited;
- (6) protection agencies and academic institutions need to ensure that research is undertaken to increase the understanding of environmental quality, and actions to protect beneficial uses. In particular, research needs to focus on:
 - (a) developing specific beneficial uses and environmental quality objectives for lakes, estuaries and wetlands, suspended sediments, environmental flows and aquatic habitats; and
 - (b) improved environment monitoring and assessment tools.
- (7) protection agencies need to provide information to Victorians on the impacts of human activities on surface waters and actions to minimise these impacts.

14. Environment Protection Authority

The Environment Protection Authority has a responsibility to enable the protection of the beneficial uses of Victoria's environment through employing a range of measures consistent with its responsibilities under the **Environment Protection Act 1970**. In carrying out these responsibilities, it is important that the Environment Protection Authority provides support to communities, businesses and protection agencies to ensure the implementation of the Policy.

During the lifetime of the Policy, a goal of the Environment Protection Authority will be to work with protection agencies, businesses and communities to:

- (1) assist catchment management authorities, regional coastal boards and regional communities to develop Government approved regional catchment strategies and plans, which identify the regional environmental, social and economic values of surface waters and, after careful consideration of environmental, social and economic needs, set appropriate goals, priorities and environmental targets for catchment and coastal environments;

- (2) use Victoria's statutory environmental audit system to enable independent audits of the progress towards implementing the Policy, attainment of the environmental quality objectives and regional targets, and the protection of beneficial uses. This needs to be undertaken within the context of monitoring and evaluating the use of Victoria's natural resources (see clauses 19, 41, 51 and 55).
- (3) report to the Victorian community on the progress towards implementing the Policy, attainment of the environmental quality objectives and regional targets, and the protection of beneficial uses;
- (4) ensure the development of the environmental quality objectives as listed in clause 11;
- (5) provide reliable information to Victorians on waste avoidance and reuse, pollution control, cleaner production and eco-efficiency;
- (6) provide tools for measuring and reducing environmental impacts; and
- (7) focus on providing guidance, and use partnership, audit, regulatory and enforcement tools, to minimise the impact of:
 - (a) wastewater discharges;
 - (b) urban stormwater runoff;
 - (c) intensive agriculture;
 - (d) aquaculture;
 - (e) water extractions;
 - (f) port, marina and vessel operations.

15. **Catchment management authorities**

Catchment management authorities have a responsibility to coordinate the ecologically sustainable development and use of catchments, floodplains and waterways, and where relevant estuaries and coasts, through many mechanisms, including the protection and rehabilitation of water quality, flow and aquatic habitats. In carrying out these responsibilities, it is important that catchment management authorities work with protection agencies, regional communities and businesses to develop Government approved regional catchment strategies and plans, which identify the regional environmental, social and economic values of surface waters and, after careful consideration of environmental, social and economic needs, set appropriate goals, priorities and environmental targets for catchment and coastal environments.

During the lifetime of the Policy, a goal of catchment management authorities will be to work with the Department of Sustainability and Environment, the Department of Primary Industries, regional resource managers, municipal councils and industry sectors to assist urban and rural landholders to use land sustainably and to reduce the impact of catchment activities on surface waters.

In the Port Phillip and Western Port catchments, the Port Phillip and Western Port Catchment Management Authority, in consultation with stakeholders, needs to set priority programs and regional targets for catchment management. In the same region, Melbourne Water and the Port Phillip and Western Port Catchment Management Authority need to work in partnership and in consultation with stakeholders, to set priority programs and targets for waterway management.

16. **Regional coastal boards**

Regional coastal boards have a responsibility to provide advice on, and undertake, strategic planning to enable the ecologically sustainable development of coastal environments. In carrying out these responsibilities, it is important that regional coastal boards work with catchment management authorities to include in regional catchment strategies and, where relevant, in coastal action plans priority programs and regional targets aimed at achieving the protection of beneficial uses. As regional coastal boards are advisory bodies, they should set priority actions in conjunction with relevant protection agencies.

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During the lifetime of the Policy, a goal of regional coastal boards will be to work with catchment management authorities, the Department of Sustainability and Environment, Parks Victoria and municipal councils to ensure an integrated approach to protecting estuarine beneficial uses. This could be achieved through including in their coastal action plans, management actions, monitoring, reporting and research provisions to protect and rehabilitate estuaries.

17. Municipal councils

Municipal councils have a range of responsibilities which impact on surface waters, including the planning and approval of sustainable land use, domestic wastewater management, urban stormwater, and where relevant, floodplain management. In carrying out these responsibilities, it is important that municipal councils work with the Environment Protection Authority, catchment management authorities and other protection agencies to ensure their municipal planning schemes, statutory approvals and municipal programs are consistent with the Policy and regional catchment strategies, and help to protect beneficial uses.

During the lifetime of the Policy, a goal of municipal councils will be to ensure that land use planning decisions and approvals consider the capability of land to sustain the use, that stormwater and domestic wastewater management is improved and, where relevant, that sediment runoff from unsealed roads is reduced.

18. Water authorities

Water authorities have various responsibilities to provide water and wastewater services in an ecologically sustainable manner. In carrying out relevant responsibilities, it is important that water authorities work with catchment management authorities and other protection agencies to develop and implement relevant priority actions.

During the lifetime of the Policy, a goal of relevant water authorities will be to:

- (1) work with the Department of Sustainability and Environment, Department of Primary Industries, catchment management authorities and landholders to minimise the impact of irrigation drains and agricultural drains on beneficial uses;
- (2) provide environmental flows as required under the **Water Act 1989**;
- (3) work with the Environment Protection Authority and the Department of Sustainability and Environment to improve the management of trade wastes and to minimise the impact of wastewater on beneficial uses.

19. Department of Sustainability and Environment

The Department of Sustainability and Environment is responsible for overseeing sustainable catchment, coastal and water management. In carrying out its responsibilities in respect of catchment and water management, it is important that the Department of Sustainability and Environment continues to work with catchment management authorities, regional coastal boards, water authorities and other protection agencies, to assist in the development and implementation of regional priority programs and regional targets. By January 2004, the Department will work with the Environment Protection Authority, catchment management authorities and other protection agencies to develop a framework for monitoring and evaluating the implementation of regional catchment strategies including priority programs, regional targets, the attainment of environmental quality objectives and the protection of beneficial uses. This framework will outline the role of independent auditing within the context of monitoring and evaluation.

During the lifetime of the Policy, a goal of the Department of Sustainability and Environment will be to continue its work in developing State-wide strategies, supporting planning and guiding investment in sustainable natural resource management and developing management tools, including market mechanisms and incentives, to guide

sustainable use of our natural resources. The Department will also continue to provide information on protecting and rehabilitating rivers, wetlands, lakes, estuaries and marine environments and their beneficial uses.

20. Department of Primary Industries

The role of the Department of Primary Industries is to facilitate the sustainable development of Victoria's primary industries to achieve strong economic activity, a high quality natural resource base in the long term, and resilient industries and communities. During the lifetime of the Policy, a goal of the Department of Primary Industries will be to develop partnerships with industry, communities, and government departments and agencies to promote the sustainable use of natural resources.

21. Parks Victoria

Parks Victoria provides services to the Department of Sustainability and Environment to conserve, protect and enhance Victoria's national, state, marine, regional and metropolitan parks and conservation reserves, and related water environments. In carrying out these responsibilities, it is important that Parks Victoria ensures that its activities are consistent with the Policy and help to protect beneficial uses.

During the lifetime of the Policy, a goal of Parks Victoria will be to work with catchment management authorities, regional coastal boards, the Department of Sustainability and Environment, municipal councils and communities to ensure that a priority is placed on protecting the beneficial uses of the aquatic ecosystem, spiritual and cultural values and where relevant, recreation, in rivers, wetlands and estuaries of high conservation value.

22. Industry sectors

To protect beneficial uses, the potential impacts of existing and future human activities need to be minimised. Industry sectors, incorporating peak bodies, producers, manufacturers and service providers, can play a significant role in this by developing environment management systems aimed at increasing the eco-efficiency and reducing the environmental impacts and resource intensity of their industries. The Environment Protection Authority will provide guidance to industries to assist them to develop environment management systems.

Industry peak bodies and representatives need to negotiate implementation programs with their members and suppliers, and with protection agencies, that include incentives, effective environmental management practices, implementation targets, reporting, monitoring, evaluation and independent audit provisions and cleaner production measures.

During the lifetime of the Policy, a goal of industry bodies and representatives will be to work with their members and suppliers to account for all costs associated with producing goods and services, including those associated with natural resource use and environmental impacts.

23. Communities

Community members have responsibilities to protect the beneficial uses of Victoria's surface waters. These include a responsibility to manage their activities to minimise direct impacts on surface waters and to efficiently use natural resources to avoid the generation of waste and wastewater.

In carrying out these responsibilities, it is important that community members (including indigenous groups) support and feed into the regional planning processes of catchment management authorities, regional coastal boards and municipal councils, to identify beneficial uses they value and actions aimed at achieving their protection. This is important not only to ensure that communities help protect beneficial uses, but also to ensure indigenous and non-indigenous cultural and spiritual values are incorporated into regional catchment strategies and regional coastal plans.

GUIDANCE**24. Regional target setting**

It is recognised that not all beneficial uses will be able to be fully protected, and not all environmental quality objectives will be met, within the lifetime of the Policy. In these cases, targets to drive the progressive rehabilitation of environmental quality need to be developed.

The regional target setting process needs to include:

- (1) regional aspirational targets that are based on maximising the protection of beneficial uses and the attainment of the Policy's environmental quality objectives;
- (2) regional resource condition targets that provide measurable and time-bound progress towards the attainment of regional aspirational targets by taking into account regional environmental, social and economic values;
- (3) regional management action targets that are set to assess the implementation of rehabilitation actions that will lead to the achievement of regional resource condition targets.

Targets need to be set through regional catchment strategies and plans and where relevant, coastal action plans, led by catchment management authorities and regional coastal boards, as outlined in clauses 15 and 16. It is important that these regional targets are set through considering both State and regional environmental, social and economic values and result in the best overall outcome for regional and Victorian communities. It is also important that regional targets are set according to priorities for environmental protection and rehabilitation as determined through regional catchment and coastal planning processes, with priority given to maintaining beneficial uses in areas of high conservation value and maintaining beneficial uses that are currently protected.

The Environment Protection Authority and the Department of Sustainability and Environment will work with catchment management authorities and regional coastal boards to establish a process and timelines for development of targets.

25. Guidance on environmental management

The Environment Protection Authority and protection agencies will provide guidance to stakeholders to assist in implementing the Policy and in reducing the impact of specific activities and industries on surface waters. This guidance may include guidelines and protocols for environmental management, as provided for by the **Environment Protection Act 1970**, which will be publicly developed and approved by the Environment Protection Authority.

- (1) In particular, the Environment Protection Authority will work with protection agencies, businesses and communities to develop guidance on:
 - (a) the application of an environmental risk assessment framework;
 - (b) wastewater management, including mixing zones, on-site domestic wastewater management, wastewater reuse and offsets;
 - (c) the use of Victoria's statutory environmental audit system; and
 - (d) use and storage of biocides and fertilisers in and near surface waters.
- (2) To help reduce the impact of current and future activities on surface waters, this guidance needs to be incorporated into planning and approvals processes, including environmental improvement plans or management systems, and needs to be implemented by stakeholders in accordance with a program negotiated with industry sectors or protection agencies.

26. Off-set measures

The Environment Protection Authority may approve, for a specified period, a discharge of a lower quality from a premises than would otherwise be acceptable if the occupier of the premises agrees to, in consultation with the community, implement and maintain any off-set measures that offer either equivalent or greater protection of beneficial uses within the affected segment or segments. Continuation of these arrangements will be conditional on the Environment Protection Authority being satisfied that the off-set continues to offer either equivalent or greater protection of beneficial uses according to the agreed plan and does not result in unacceptable local impacts. To provide greater clarity on off-set measures, the Environment Protection Authority will work with protection agencies, businesses and communities to provide guidance on developing and approving off-set measures.

WASTE AND WASTEWATER MANAGEMENT**27. Management of discharges to surface waters**

To protect beneficial uses, the discharge of wastes and wastewater from licensed and unlicensed premises and activities to surface waters must be managed in accordance with the waste hierarchy, with priority given to avoiding the generation of wastewater.

In licensing a wastewater discharge, the Environment Protection Authority will:

- (1) consider the existing environmental quality of surface waters and protection of beneficial uses, and the potential impacts of future wastewater discharges on beneficial uses;
- (2) require licence holders to implement effective wastewater management practices that minimise environmental risks to beneficial uses. The Environment Protection Authority will provide guidance on wastewater management practices;
- (3) only approve wastewater management practices, including disinfection, that will not increase the toxicity of the wastewater discharge; and
- (4) not approve a wastewater discharge that, according to toxicity tests approved by the Environment Protection Authority, displays acute lethality at the point of discharge or causes chronic impacts outside any declared mixing zone, except that a waste discharge containing a non-persistent substance that degrades within any declared mixing zone may be approved.

28. New wastewater discharges

The potential impact of new wastewater discharges needs to be minimised to protect beneficial uses. To enable this:

- (1) the Environment Protection Authority:
 - (a) will require applicants for works approvals to incorporate measures that avoid, re-use and recycle wastewater;
 - (b) will, where a discharge can not be avoided, re-used and recycled, require applicants of works approvals to incorporate effective wastewater management practices to avoid the discharge resulting in the exceedance of environmental quality objectives in surface waters;
 - (c) may approve a mixing zone as part of a discharge licence where a discharge can not practicably be avoided, reused and recycled, and where wastewater management practices are not effective in fully protecting beneficial uses;
- (2) the Environment Protection Authority will, if a licence is approved, ensure that it is consistent with the Policy and includes an environment improvement plan to progressively reduce the impacts of wastewater discharges on beneficial uses, and

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a monitoring program to assess the impact of the wastewater discharge on beneficial uses; and

- (3) will not approve any new discharges:
 - (a) to the Aquatic Reserves, Wetlands and Lakes or Estuaries and Inlets segments or to waters in areas of high conservation significance, including those listed in Schedule B, except in accordance with the provisions of clause 31;
 - (b) to waters in special water supply catchments or where a discharge will impact on authorised potable supplies;
 - (c) where a discharge would pose an environmental risk to beneficial uses and best management practice has not been adopted.

29. Existing wastewater discharges

To protect beneficial uses, the discharge of wastewater to surface waters needs to be managed to minimise environmental risks to beneficial uses. To enable this, the Environment Protection Authority:

- (1) will revise existing licences to ensure they are consistent with the Policy and include a monitoring program to assess the impact of wastewater discharges on beneficial uses;
- (2) will require licence holders to assess options to maximise the implementation of the waste hierarchy and develop environment improvement plans to implement preferred options and to progressively reduce the impacts of wastewater discharges on beneficial uses; and
- (3) may approve a mixing zone as part of a discharge licence where a discharge can not practicably be avoided, re-used and recycled, and where wastewater management practices are not effective in fully protecting beneficial uses.

In particular, a priority needs to be placed on the avoidance, re-use, recycling and management of wastewater that is currently discharged to the Aquatic Reserves, Wetlands and Lakes or Estuaries and Inlets segments, unless that wastewater is managed in accordance with the provisions of clause 31. Where a discharge cannot be avoided, it must be below the low water mark and should be beyond the surf zone.

30. Mixing zones

In issuing a licence, the Environment Protection Authority may approve a mixing zone where it is not practicable to avoid, re-use, recycle and effectively manage wastewater. Within a mixing zone, designated environmental quality objectives do not need to be met and therefore beneficial uses may not be protected. The Environment Protection Authority:

- (1) will not approve a mixing zone if it will result in:
 - (a) environmental risks to beneficial uses outside the mixing zone;
 - (b) harm to humans, unacceptable impacts on plants and animals or where it will cause a loss of aesthetic enjoyment or an objectionable odour;
- (2) will require affected licence holders to develop and implement an environment improvement plan that includes effective management practices aimed at continuously reducing the size of the mixing zone and preferably achieving its complete elimination;
- (3) will regularly review mixing zones and the implementation of environment improvement plans, to ensure that the size of mixing zones is minimised;
- (4) will provide guidance on criteria for establishing an acceptable mixing zone, including requirements for community and stakeholder consultation.

31. Management of wastewater re-use and recycling

It is important that the re-use and recycling of wastewater is sustainable and does not pose an environmental risk to the beneficial uses of surface waters and groundwaters. To enable this, wastewater re-use and recycling needs to be consistent with guidance from the Environment Protection Authority, including that provided in the *Guidelines for Environmental Management – Use of Reclaimed Water (2002)*, as amended.

If the Environment Protection Authority is satisfied that wastewater can be treated and managed to a level that will protect beneficial uses, the discharge of that wastewater to surface waters to provide water for the environment or other uses, is an acceptable form of re-use. The delivery of this water should consider such factors as seasonality, temperature and discharge rate.

32. On-site domestic wastewater management

On-site domestic wastewater needs to be managed to prevent the transport of nutrients, pathogens and other pollutants to surface waters and to prevent any impacts on groundwater beneficial uses. To enable this:

- (1) occupiers of premises with an on-site domestic wastewater system need to manage that system in accordance with permit conditions and the *Code of Practice – Septic Tanks On-site Domestic Wastewater Management (2003)*, as amended. Occupiers also need to regularly assess the performance of their system against permit conditions.
- (2) municipal councils need to:
 - (a) prior to approving a development, assess the suitability of land for on-site domestic wastewater systems. To assist in this, the Environment Protection Authority will provide guidance including that in *Land Capability Assessment for Onsite Domestic Wastewater Management (2001)*, as amended;
 - (b) ensure that sewerage is provided at the time of sub-division, if the use of on-site domestic wastewater systems would result in wastewater being discharged beyond allotment boundaries or would impact on groundwater beneficial uses;
 - (c) ensure that permits are consistent with guidance provided by the Environment Protection Authority, including that provided in the *Code Of Practice – Septic Tanks On-Site Domestic Wastewater Management (2003)*, as amended;
 - (d) work with the Environment Protection Authority to identify existing unsewered allotments which are not capable of preventing the discharge of wastewater beyond allotment boundaries, or preventing impacts on groundwater beneficial uses; and
 - (e) where relevant, develop and implement a domestic wastewater management plan, in conjunction with water authorities and communities, that:
 - (i) reviews land capability assessments and available domestic wastewater management options to prevent the discharge of wastewater beyond allotment boundaries and prevent impacts on groundwater beneficial uses;
 - (ii) identifies the preferred options, together with costs, funding needs, timelines and priorities; and
 - (iii) provides for the assessment of compliance of on-site domestic wastewater systems with permit conditions.

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33. Sewerage planning

If reticulated sewerage is identified in a domestic wastewater management plan as the preferred option for improved domestic wastewater management, water authorities or water companies, in conjunction with the Environment Protection Authority and municipal councils, and in consultation with the local community, need to develop and submit to Government a sewerage management plan that:

- (1) reviews available wastewater management options;
- (2) identifies the preferred types and levels of sewerage services to be provided, together with costs and funding options;
- (3) identifies priorities and possible timelines for the provision of services;
- (4) identifies how the wastewater collected will be sustainably managed in accordance with the waste hierarchy; and
- (5) provides for a three yearly review of the plan and priority areas for sewerage.

34. Connection to sewerage

Where sewerage is provided, premises must be connected to the sewerage system, unless wastewater is re-used in accordance with guidance provided by the Environment Protection Authority and is retained on-site. Where sewerage is provided, and upon written advice from the Environment Protection Authority, relevant water authorities or companies will be responsible to ensure that premises that can not retain wastewater on-site, are connected to sewerage.

35. Sewerage management

Losses of wastewater through sewer overflows, leakages and collapses need to be avoided to protect beneficial uses. Where these cannot be avoided, they must be minimised and controlled. To enable this, the Environment Protection Authority will:

- (1) provide guidance to relevant water authorities on sewerage system performance requirements. Sewerage infrastructure needs to contain flows associated with a 1-in-5-year rainfall event or a comparable design standard that avoids losses of wastewater;
- (2) ensure that new sewerage treatment works are not constructed on floodplains; and
- (3) ensure existing sewerage treatment and pumping works on floodplains are managed in a manner that prevents entry of floodwater and avoids impacts on beneficial uses.

36. Saline discharges

The discharge of saline wastewater, including discharges from groundwater pumping and irrigation drains, should not pose an environmental risk to beneficial uses. To enable this, relevant protection agencies, in particular water authorities, the Department of Primary Industries, the Department of Sustainability and Environment, and relevant businesses need to implement the waste hierarchy to maximise the avoidance, re-use and recycling of saline wastewater before discharging it to surface waters. Where saline wastewater cannot be practicably avoided, re-used and recycled, its impact on surface waters needs to be minimised by discharging saline wastewater to artificial drains or evaporation basins or through treatment, including dilution, to minimise environmental risks posed to beneficial uses. Any discharge of saline water to surface waters needs to be in accordance with Government approved salinity plans and strategies and the Murray Darling Basin Agreement.

37. Chemical management

Chemicals including biocides, fertilisers, oil and fuel, other hazardous substances and prescribed industrial wastes need to be managed to minimise environmental risks to beneficial uses. To ensure this:

- (1) chemicals and hazardous substances must not be stored in or adjacent to surface waters, drainage lines or floodplains, unless the storage facilities prevent them from coming into contact with surface waters;
- (2) protection agencies and businesses that use, store or transport chemicals and hazardous substances must develop and maintain plans for the avoidance of spills, leakages or breakdowns. Contingency plans need to include emergency holding and clean up measures, actions to minimise environmental risks to beneficial uses, methods for disposal of spilled materials and staff training in operating and emergency response procedures;
- (3) the Environment Protection Authority will work with protection agencies, businesses and communities to develop guidance for the use and storage of biocides and fertilisers in or near surface waters. Instream and riparian chemical spraying practices need to be consistent with guidance approved by the Environment Protection Authority. In particular, instream and riparian spraying needs to be avoided in the Aquatic Reserves and Highlands segments.

38. Spills, illegal discharges and dumping of waste

Protection agencies and businesses must undertake measures to prevent the spillage of chemicals, oil, grease, oily mixtures or other hazardous substances into surface waters.

- (1) In the case of marine spills or illegal discharges or dumping of waste, it is the responsibility of Marine Safety Victoria to ensure that response arrangements are conducted in accordance with the *National Plan to Combat Pollution of the Sea by Oil and other Noxious Substances*, the *Victorian Marine Pollution Contingency Plan* and any other relevant State or regional marine pollution contingency plans. In carrying out these responsibilities, Marine Safety Victoria needs to ensure that:
 - (a) port managers and industries in ports and port waters provide and maintain adequate spill response capabilities and, when required, respond to marine spills or illegal discharges;
 - (b) spills are physically reclaimed or where reclamation is not practicable, clean-up methods that pose the least risk to the aquatic ecosystem are used; and
 - (c) a protocol for use of dispersants in marine waters is developed, and includes provisions for the avoidance of dispersant use where practicable. This protocol must be approved by the Environment Protection Authority.
- (2) In the case of inland spills, or illegal discharges and dumping of waste, the Environment Protection Authority will work with protection agencies, particularly relevant surface water managers and relevant municipal councils to enable them to implement response and clean-up arrangements;
- (3) Where a spill occurs, the Environment Protection Authority will undertake enforcement consistent with its responsibilities under the **Environment Protection Act 1970**, the **Pollution of Waters by Oil and Noxious Substances Act 1986** and its *Enforcement Policy*.

39. Animal wastes

Animal wastes must not be dumped into surface waters and the runoff of animal wastes to surface waters needs to be minimised. To enable this:

- (1) the Department of Primary Industries, the Department of Sustainability and Environment, Parks Victoria and catchment management authorities need to encourage landholders and occupiers of Crown land to restrict stock access to surface waters; and
- (2) municipal councils need to encourage animal owners to collect animal wastes from public areas.

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WATER MANAGEMENT**40. Water conservation**

The protection of beneficial uses requires water of adequate quality and quantity. To conserve the use of potable water and ensure a sustainable water supply for all beneficial uses:

- (1) protection agencies, particularly water authorities and municipal councils, need to work with communities and businesses to implement water saving practices and measures, particularly for new developments; and
- (2) the Environment Protection Authority needs to work with protection agencies, communities and businesses to ensure that re-use and recycling of wastewater is maximised.

41. Water allocations and environmental flows

To protect aquatic ecosystems, adequate environmental flows need to be provided to waterways, wetlands, lakes and estuaries. To enable this:

- (1) relevant protection agencies, particularly relevant water authorities, the Department of Sustainability and Environment and catchment management authorities need to work with other protection agencies, businesses and communities to develop and implement measures to provide environmental flows;
- (2) no increased allocation from any river, stream, lake, wetland or estuary should be approved unless it is consistent with the **Water Act 1989** and is subject to a process which is designed to provide environmental flows;
- (3) the Department of Sustainability and Environment will work with catchment management authorities, relevant water authorities and the Environment Protection Authority to develop a program to review and periodically independently audit the provision of environmental flows and their effectiveness in protecting beneficial uses.

42. Releases from water storages

Releases of flow from water storages to surface waters need to be managed to provide flows of a suitable quality, quantity and seasonal pattern to protect beneficial uses. To ensure this, relevant water authorities and other water storage operators need to assess if releases from water storages pose an environmental risk to beneficial uses through altered flow patterns or variations of sediment, salt, nutrients, temperature, dissolved oxygen or other pollutants from downstream levels. If a risk is detected, relevant water authorities and other storage operators need to work with affected communities and stakeholders to implement measures to minimise these risks, monitor impacts on downstream surface waters and report impacts of water releases on beneficial uses to affected communities and stakeholders.

43. Surface water management and works

Works on or adjacent to surface waters need to be managed to minimise environmental risks posed to the aquatic ecosystem and to protect other beneficial uses. To enable this, surface water managers need to:

- (1) ensure that works within or adjacent to surface waters are managed so that unnatural erosion, sediment re-suspension and other environmental risks to aquatic habitats are minimised; and
- (2) ensure that existing and new in-situ structures do not pose a barrier to native fish movement.

44. Dredging and desilting management

Dredging and desilting activities, including estuary openings, need to be managed to minimise the re-suspension and transport of sediments or other pollutants that pose an environmental risk to beneficial uses. To enable this, those who undertake dredging and desilting activities need to use effective management practices as adopted by the Environment Protection Authority, including those outlined in the *Best Practice Environmental Management Guidelines for Dredging (2001)*, as amended.

45. Groundwater management

In accordance with the *State environment protection policy (Groundwaters of Victoria)*, catchment activities should not pose an environmental risk to groundwater beneficial uses. Conversely, groundwater managers and those who use groundwater need to ensure that their activities do not pose an environmental risk to surface water beneficial uses, particularly through the excessive extraction of water and the subsequent prevention of surface water environmental flows, and through reducing the quality of adjoining surface waters.

46. Urban stormwater

Artificial stormwater drains and artificial stormwater management wetlands need to be managed for the purposes for which they were constructed (see clause 10). They need to be designed and managed so that their waters are not harmful to humans or have unacceptable impacts on animals, and so that the impacts of flow, sediments, nutrients, toxicants, litter and other pollutants on surface waters are minimised. To enable this, the Environment Protection Authority and relevant protection agencies will:

- (1) support municipal councils in developing stormwater management plans and in implementing effective management practices to minimise the generation and transport of pollutants, particularly from new developments and drainage systems;
- (2) provide guidance on practices to minimise the impacts of urban stormwater including that provided in the *Best practice environmental management guidelines for urban stormwater (1999)* as amended;
- (3) work with municipal councils, businesses and communities to prevent wastewater discharges to stormwater drains;
- (4) assist municipal councils to monitor and report to the community and relevant stakeholders on the impact of stormwater drains on surface waters, on a priority basis as identified through stormwater management plans;
- (5) work with municipal councils and the Department of Infrastructure to ensure new developments include effective practices to manage stormwater runoff volumes and minimise runoff of pollutants in stormwater; and
- (6) assist municipal councils to provide to communities and businesses, education and awareness raising material on stormwater management and pollution avoidance measures.

47. Ports, marinas and vessels

Port, marina and vessel operation and maintenance activities need to be managed to minimise environmental risks to beneficial uses. To enable this:

- (1) operators of vessels must not discharge to surface waters sewage, oil, garbage, sediment, litter or other wastes that pose an environmental risk to beneficial uses. To help achieve this, operators of vessels need to install effective waste containment facilities on board, to enable the transfer of wastes to approved treatment or disposal facilities. In particular, a priority needs to be placed on containing sewage waste from vessels with toilet or overnight accommodation facilities;

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- (2) the Environment Protection Authority, the Department of Infrastructure and Marine Safety Victoria will work with other relevant protection agencies, port and marina managers, and shipping and boating industries to develop and implement programs to manage sewage, oil, garbage, sediment, litter or other wastes, on vessels;
- (3) port owners or managers need to develop and implement environment improvement or management plans, in conjunction with operators of businesses in ports and port waters and local communities. These plans need to include effective management practices for port and port related activities, including, where relevant, the provision of vessel waste reception facilities, ballast water management, stormwater management, vessel loading and unloading, and containment of wastes from vessel maintenance. The provisions of these plans need to be incorporated into the operations of businesses in ports or port waters.
- (4) marina owners or managers need to develop and implement environment improvement or management plans that are consistent with guidance from protection agencies including that provided or adopted by the Environment Protection Authority in the *Cleaner marinas: EPA guidelines for protecting Victoria's marinas (1998)*, as amended and the *Best Practice Guidelines for Waste Reception Facilities At Ports, Marinas And Boat Harbours In Australia and New Zealand (1997)*, as amended.

48. Aquaculture activities

Aquaculture activities need to be managed so that environmental risks to beneficial uses, particularly those posed by inputs of nutrients, pathogens and aquatic pests, are minimised. To enable this, the Environment Protection Authority, the Department of Primary Industries and the Department of Sustainability and Environment will:

- (1) ensure that aquaculture operators implement effective environmental management practices and appropriate environmental monitoring systems;
- (2) provide guidance on effective management practices and environmental monitoring requirements to managers of aquaculture operations.

The beneficial use of aquaculture is only protected in areas where the environmental quality is suitable and where it has been approved by the Government in accordance with the **Fisheries Act 1995**.

49. Aquatic pests

Activities associated with the introduction and spread of aquatic pests, including ballast water discharge, hull fouling and the release of exotic species, need to be managed to minimise the environmental risks of their introduction and spread. To enable this:

- (1) the Environment Protection Authority, the Department of Sustainability and Environment, the Department of Primary Industries and the Department of Infrastructure will work with businesses and communities to develop and implement measures to minimise the risks of the introduction of aquatic pests; and
- (2) the Department of Primary Industries, the Department of Sustainability and Environment, Parks Victoria and where relevant, catchment management authorities, need to continue to develop and implement strategies and programs for the control and management of the impacts of marine and freshwater pests.

CATCHMENT MANAGEMENT**50. Agricultural activities**

Effective agricultural management practices need to be implemented by landholders to minimise the runoff of pollutants such as sediment, nutrients, salt, biocides, pathogens and

litter to surface waters. To achieve this, the Department of Primary Industries, Department of Sustainability and Environment, catchment management authorities and industry sectors need to enable landholders to develop and implement effective management practices aimed at:

- (1) utilising land sustainably and within its capability;
- (2) minimising nutrient and fertiliser runoff;
- (3) minimising toxicant runoff through appropriate use of biocides;
- (4) minimising sediment runoff through the implementation of soil conservation and erosion control measures, including the control of stock access to surface waters and runoff from areas of high stock concentration and farm roads;
- (5) minimising sediment, toxicant, saline and nutrient runoff from irrigated land to irrigation drains by using efficient irrigation practices and reuse; and
- (6) minimising the runoff of sediments, nutrients, litter and other pollutants to agricultural drains.

It is important that farm management practices aim to implement relevant environment management systems and cleaner production and eco-efficient practices developed by or for their industry sector.

51. Irrigation channels and drains

Artificial irrigation channels and artificial irrigation drains need to be managed for the purposes for which they were constructed (see clause 10). They must be designed and managed so that their waters are not harmful to humans or have unacceptable impacts on animals, and so that the impact of their flow, sediments, nutrients, salt and other pollutants on surface water and groundwater is minimised. To enable this:

- (1) the Department of Primary Industries, the Department of Sustainability and Environment, the Environment Protection Authority, catchment management authorities, relevant water authorities and industry sectors need to work together to minimise pollutants entering irrigation drains by:
 - (a) developing and implementing Government endorsed land and water management plans;
 - (b) working with irrigators to implement efficient irrigation and water re-use practices for existing irrigation schemes;
 - (c) ensuring that new developments incorporate efficient irrigation and water re-use practices;
 - (d) facilitating research into efficient irrigation practices; and
 - (e) benchmarking irrigation water delivery and use efficiency, and monitoring, reviewing and independently auditing against this benchmark and best management irrigation practice.
- (2) Relevant water authorities need to:
 - (a) implement practices to minimise pollutants generated within irrigation channels and drains and to minimise the impact of discharges from irrigation channels and drains on surface waters;
 - (b) monitor, on a priority basis, the impact of discharges from irrigation channels and drains on surface waters; and
 - (c) work with the Department of Sustainability and Environment, the Department of Primary Industries, the Environment Protection Authority and catchment management authorities to identify a credible, independent audit system and use it to audit the impact of irrigation drain discharges on surface waters.

28 *S 107 4 June 2003**Victoria Government Gazette***52. Intensive agricultural industries**

Wastes and wastewater from intensive agricultural industries must not be discharged to surface waters. To enable this, managers of intensive agricultural operations need to implement effective management practices that are consistent with guidance from protection agencies, including where relevant, that provided in approved protocols, guidelines and codes of practice.

The Environment Protection Authority and the Department of Primary Industries will work together to provide guidance to managers of intensive agricultural activities on cleaner production and waste minimisation measures.

53. Vegetation protection and rehabilitation

Aquatic, riparian and coastal vegetation needs to be protected and rehabilitated, to achieve the goal of net gain in extent and quality of coastal, aquatic and riparian vegetation over the lifetime of the Policy. To achieve this, relevant protection agencies, particularly the Department of Sustainability and Environment, Parks Victoria, catchment management authorities, regional coastal boards and municipal councils, need to work with communities to minimise the removal of, and rehabilitate, native vegetation within or adjacent to surface waters.

54. Recreational activities

Recreation activities need to be managed and undertaken so they do not pose an environmental risk to beneficial uses. To enable this, protection agencies:

- (1) in particular the Department of Sustainability and Environment, Parks Victoria and municipal councils need to prohibit or control recreational activities where required to protect beneficial uses; and
- (2) need to manage the use of powerboats and other activities in surface waters where the resulting wave or propeller action may result in a level of erosion or sediment dispersal that poses an environmental risk to beneficial uses.

55. Forestry activities

Forestry activities, on both public and private land, need to be managed to minimise land disturbance and the runoff of pollutants, particularly sediments, to surface waters. To enable this, forestry managers and operators need to implement effective management practices for forestry activities. Management practices need to comply with the *Code of Forest Practices for Timber Production (1996)*, as amended, (the Code). It is important that the compliance of forestry activities with the Code is periodically independently audited. As a priority, the Environment Protection Authority will ensure that independent audits of forestry activities on public land are conducted, to assess compliance with the Code. This will be done using Victoria's statutory environmental audit system.

The Environment Protection Authority and the Department of Sustainability and Environment and municipal councils will provide guidance on minimising sediment runoff from forestry activities.

56. Construction activities

Construction works need to be managed to minimise land disturbance, soil erosion and the discharge of sediments and other pollutants to surface waters. To enable this, construction managers need to implement effective management practices that are consistent with guidance from the Environment Protection Authority, including that provided in the *Environmental Guidelines for Major Construction Sites (1996)*, as amended and *Construction Techniques for Sediment Pollution Control (1991)*, as amended. Where construction activities adjoin or cross surface waters, construction managers need to monitor affected surface waters, to assess if beneficial uses are being protected.

57. Roads

Road managers, including municipal councils and VicRoads, need to maintain and, where relevant, manage roads and infrastructure to minimise erosion and sediment and pollutant transport, particularly along urban, unsealed and forestry roads. A priority for managers of unsealed roads should be to maintain and, where relevant, upgrade those roads that adjoin or cross surface waters to minimise sediment runoff. A further priority for managers of forested roads and roads in areas of high conservation value is to close roads that are no longer needed. A priority of managers of sealed roads should be to manage contaminated stormwater runoff from roads.

58. Extractive industries

Operators of extractive industries such as mines and quarries need to manage their operations so that sediment and other pollutants in runoff to surface waters and groundwater are minimised. To enable this, the Environment Protection Authority will ensure that all wastewater discharges from extractive industries are licensed and that environmental risks posed to beneficial uses are minimised.

PART VII – ANNEXES**ANNEX A – SEGMENT DEFINITIONS**

- (1) Aquatic reserves segment consists of the surface waters in conservation reserves reserved or approved by Government for reservation, for the purposes of the conservation of their natural values under the **Crown Land (Reserves) Act 1978**, State Wildlife Reserves under the **Wildlife Act 1975**, areas proclaimed under the **Reference Areas Act 1978**, and areas listed in the Schedules of the **National Parks Act 1975**.
- (2) Wetlands and Lakes segment consists of surface waters in reservoirs, alpine bogs, large open lakes, inland hyper-saline lakes, floodplains and billabongs, swamps, mudflats and other water bodies, with the characteristic of being wet on a regular or semi-regular basis but not included in other segments.
- (3) Rivers and streams segments include the following but exclude rivers and streams included in the Aquatic Reserves segment:
 - (a) Highlands segment consists of the mountain river and stream reaches in the Upper Murray, Mitta Mitta, Kiewa, Ovens, Goulburn, Yarra, Latrobe, Thomson, Macalister, Mitchell, Tambo and Snowy catchments. This segment is largely natural, with alpine and sub-alpine environments and is generally above 1,000 metres in altitude.
 - (b) Forests-A segment consists of the upland river and stream reaches in the Upper Murray, Mitta Mitta, Kiewa, Goulburn, Yarra, Latrobe and Thomson catchments, and river and stream reaches in the Grampians, Strzelecki Ranges, Wilsons Promontory and far East Gippsland. This segment has minor disturbance, is mostly forested and is generally above 400 metres in altitude but also includes some coastal areas.
 - (c) Forests-B segment consists of the upland river and stream reaches in the Ovens, Broken, Goulburn, Macalister, Mitchell, Tambo and Snowy catchments, and river and stream reaches in the Otway Ranges. This segment has minor disturbance, is mostly forested and is generally above 400 metres in altitude.
 - (d) Cleared Hills and Coastal Plains segment consists of the upper river and stream reaches in the Campaspe, Loddon, Avoca, Wimmera and Hopkins catchments, mid river and stream reaches in the Ovens, Broken and Goulburn catchments, lowland river and stream reaches and their catchments in the Barwon, Yarra, Latrobe, Thomson, Macalister, Mitchell, Tambo, Gellibrand and Snowy catchments, river and stream reaches in the Curdies, Moorabool, Werribee, Maribyrnong and

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Western Port catchments, and river and stream reaches in South Gippsland. This segment has a high level of disturbance, is generally extensively cleared, with some isolated remnant native forests and substantial urban centres. The cleared hills are generally above 200 metres in altitude and the coastal plains are below 200 metres in altitude.

- (e) Murray and Western Plains segment consists of lowland river and stream reaches in the Kiewa, Ovens, Broken, Goulburn, Campaspe, Loddon, Avoca, Wimmera, Glenelg, and Hopkins catchments, and the river and stream reaches in the Mallee, Portland, Corangamite and Millicent Coast Basins. This segment has a high level of disturbance, is almost entirely cleared and under grazing, cropping or horticulture and is generally below 200 metres in altitude.
- (4) Marine and estuarine segments:
- (a) Estuaries and Inlets Segment consists of surface waters, other than Port Phillip Bay, Western Port and Gippsland Lakes, where marine intrusion into freshwater occurs.
 - (b) Port Phillip Bay Segment consists of the marine and estuarine segments identified in the *State environment protection policy (Waters of Victoria) - Schedule F6. Waters of Port Phillip Bay*;
 - (c) Western Port Segment consists of the marine and estuarine segments identified in the *State environment protection policy (Waters of Victoria) - Schedule F8. Waters of Western Port and Catchment*;
 - (d) Gippsland Lakes Segment consists of the marine and estuarine segments identified in the *State environment protection policy (Waters of Victoria) - Schedule F3. Gippsland Lakes and Catchment*;
 - (e) Open Coasts Segment consists of surface waters lying within 3 nautical miles of Victoria's territorial baseline.

PART VIII SCHEDULES

SCHEDULE A – ENVIRONMENTAL QUALITY OBJECTIVES AND INDICATORS

A1. Environmental quality objectives and indicators

- (1) Unless specific objectives are described in the Policy, the environmental quality objectives are those values specified in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)* (the *Guidelines*). Unless otherwise stated, the level of ecosystem protection in the Guidelines that needs to be used to determine the objective is:
 - (a) 99% for largely unmodified aquatic ecosystems;
 - (b) 95% for slightly to moderately modified aquatic ecosystems;
 - (c) 90% for highly modified aquatic ecosystems.

As defined in table 3.4.1 denoted as level of ecosystem protection (% species).
- (2) Environmental quality objectives specific to the Policy are described in Tables A1 to A6.
- (3) For the purpose of the Aquatic Reserves segment, environmental quality needs to remain at background levels.
- (4) Environmental quality objectives must be assessed using monitoring protocols approved by, or guidance provided by the Environment Protection Authority.
- (5) For the purposes of Tables A1 to A6, where referenced:
 - (a) 'T' is the value listed in the *Guidelines*.
 - (b) median and 75th/25th percentiles need to be calculated from a minimum of 11 data points collected from monthly monitoring over one year.

- (c) 'urban' includes surface waters that have a catchment area that is greater than 15% urbanised and the urban population is greater than 3,000.
 - (d) 'highland' means greater than 1000 metres in altitude;
 - (e) 'upland' means between 200 and 1000 metres in altitude.
 - (f) 'lowland' means less than 200 metres in altitude.
 - (g) F6 means refer to the objective set for Port Phillip Bay in the *State environment protection policy (Waters of Victoria) – Schedule F6. Waters of Port Phillip Bay*.
 - (h) F8 means refer to the objective set for Western Port in the *State environment protection policy (Waters of Victoria) – Schedule F8. Waters of Western Port and Catchment*;
 - (i) F3 means refer to the objectives set for the Gippsland Lakes in the *State environment protection policy (Waters of Victoria) – Schedule F3. Gippsland Lakes and Catchment*.
 - (j) ISQG low refers to the values in the *Guidelines* in table 3.5.1, denoted as ISQG-low;
 - (k) ISQG-High refers to the values in the *Guidelines* in table 3.5.1, denoted as ISQG-high;
 - (l) T 95% refers to the values in the *Guidelines* in table 3.4.1, denoted as level of ecosystem protection (% species) – 95%;
 - (m) R75 and R25 means that a single objective value could not be specified due a lack of data or variability of data collected in a segment. For these areas, the objective needs to be calculated and is the 75th and 25th percentile of data collected at reference sites. Reference sites are sites within segments that characterise background (or natural) levels, desirable conditions or the best available sites in that segment.
- (6) For the purpose of tables A2 and A3:
- (a) SIGNAL means Stream Invertebrate Grade Number – Average Level, which is an index of water pollution based on tolerance or intolerance of biota to pollution.
 - (b) "AUSRIVAS" means Australian Rivers Assessment System, which consists of a predictive mathematical model for comparing the similarity of the invertebrate community of a sampled site to minimally disturbed reference sites.
 - (c) EPT means Ephemeroptera, Plecoptera and Trichoptera, which are the pollution sensitive invertebrate orders commonly used as indicators.
 - (d) O/E score means observed to expected ratio of macro-invertebrate families.
 - (e) Bands means the division of the O/E scores into different levels of biological condition.
 - (f) Key families means the presence of a proportion of listed families which are indicative of good habitat and water quality.
 - (g) Biological sampling must be undertaken:
 - (i) using collection methods described in the *Rapid bioassessment of Victorian streams: The approach and methods of the Environment Protection Authority (1998)*, as amended.
 - (ii) in two seasons, spring and autumn, and from both riffle and pool habitats if present.

Table A1: Environmental quality objectives for rivers and streams – water quality

SEGMENT	INDICATOR							
	Total phosphorus (µg/L)	Total nitrogen (µg/L)	Dissolved oxygen % saturation		Turbidity (NTU)	Electrical conductivity (µS/cm)	pH (pH units)	
	75 th percentile	75 th percentile	25 th percentile	maximum	75 th percentile	75 th percentile	25 th percentile	75 th percentile
Highlands								
• all areas	≤20	≤150	≥95	110	≤5	≤100	≥6.4	≤7.7
Forests – A								
• Wilsons Promontory, Strzelecki Ranges & East Gippsland Coast	≤25	≤500	≥90	110	≤5	≤500	≥6.4	≤7.7
• upper Murray, Kiewa & Mitta Mitta catchments	≤25	≤350	≥90	110	≤5	≤100	≥6.4	≤7.7
• the Grampians	≤25	≤350	≥90	110	≤5	≤500	≥6.4	≤7.7
• all other areas	≤25	≤500	≥90	110	≤5	≤100	≥6.4	≤7.7
Forests – B								
• Otway Ranges	≤25	≤350	≥90	110	≤5	≤500	≥6.4	≤7.7
• all other areas	≤25	≤350	≥90	110	≤5	≤100	≥6.4	≤7.7
Cleared Hills and Coastal Plains								
• lowlands of Barwon, Moorabool, Werribee, Maribyrnong, Curdies & Gellibrand catchments	≤45	≤600	≥85	110	≤10	≤1500	≥6.5	≤8.3
• lowlands of Yarra, Western Port, Latrobe, Mitchell, Tambo, Snowy, Thomson & Macalister catchments	≤45	≤600	≥85	110	≤10	≤500	≥6.4	≤7.7
• uplands of Moorabool, Werribee, Maribyrnong, Campaspe, Loddon, Avoca, Wimmera and Hopkins catchments	≤25	≤600	≥85	110	≤10	≤500	≥6.5	≤8.3

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Table A1: Environmental quality objectives for rivers and streams - water quality... continued

SEGMENT	INDICATOR							
	Total phosphorus (µg/L)	Total nitrogen (µg/L)	Dissolved oxygen % saturation		Turbidity (NTU)	Electrical conductivity (µS/cm)	pH (pH units)	
	75 th percentile	75 th percentile	25 th percentile	maximum	75 th percentile	75 th percentile	25 th percentile	75 th percentile
• mid-reaches of Ovens, Goulburn and Broken catchments	≤25	≤600	≥85	110	≤10	≤500	≥6.4	≤7.7
Murray and Western Plains								
• lowlands of Kiewa, Ovens, Goulburn & Broken catchments	≤45	≤900	≥85	110	≤30	≤500	≥6.4	≤7.7
• lowlands of Campaspe, Loddon & Avoca catchments	≤45	≤900	≥80	110	≤30	≤1500	≥6.5	≤8.3
• lowlands of Wimmera catchment & Mallee Basin	≤40	≤900	≥80	110	≤10	≤1500	≥6.5	≤8.3
• lowlands of Glenelg & Hopkins catchments, & Portland, Corangamite and Millicent Coast Basins	≤40	≤900	≥85	110	≤10	≤1500	≥6.5	≤8.3

Table A2: Environmental quality objectives for rivers and streams - biological

SEGMENT	INDICATOR					
	Number of families	SIGNAL index score	EPT index score	AUSRIVAS		Key families combined habitat score
				O/E score	Band	
Highlands						
all areas						
• riffle	22	5.8	10	n/a	n/a	18
• edge	13	6.2	4	n/a	n/a	
Forests – A						
urban areas						
• riffle	18	5.6	6	0.61	B	18
• edge	18	5.4	5	0.57	B	
all other areas						
• riffle	21	6.0	9	0.87	A	22
• edge	22	5.7	7	0.86	A	
Forests – B						
urban areas						
• riffle	20	5.8	8	0.6	B	24
• edge	21	5.6	7	0.61	B	
all other areas						
• riffle	23	6.0	10	0.87	A	26
• edge	24	5.8	9	0.87	A	
Cleared Hills and coastal plains						
urban areas						
• riffle	21	5.3	n/a	0.47	B	20
• edge	23	5.3	n/a	0.55	B	
all other areas						
• riffle	23	5.5	n/a	0.82	A	22
• edge	26	5.5	n/a	0.85	A	

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Table A2: Environmental quality objectives for rivers and streams - biological....continued

SEGMENT	INDICATOR					
	Number of families	SIGNAL index score	EPT index score	AUSRIVAS		Key families combined habitat score
				O/E score	Band	
Murray and Western Plains						
urban areas						
• edge	22	5.0	n/a	0.61	B	16
all other areas						
• edge	23	5.3	n/a	0.87	A	21

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Table A3: Lists of key families

SEGMENT				
Highlands	Forests A	Forests B	Cleared Hills and coastal plains	Murray and Western Plains
Aeschnidae	Aeschnidae	Aeschnidae	Aeschnidae	Aeschnidae
Acarina	Acarina	Acarina	Acarina	Acarina
Aphroteniinae	Ameletopsidae	Ameletopsidae	Ancylidae	Ancylidae
Austroperlidae	Ancylidae	Ancylidae	Atyidae	Atyidae
Baetidae	Athericidae	Athericidae	Baetidae	Baetidae
Blepharoceridae	Austroperlidae	Atriplectidae	Caenidae	Caenidae
Calocidae	Baetidae	Atyidae	Calamoceratidae	Calamoceratidae
Ceratopogonidae	Blepharoceridae	Austroperlidae	Ceinidae	Ceinidae
Chironominae	Caenidae	Baetidae	Ceratopogonidae	Ceratopogonidae
Coloburiscidae	Calocidae	Caenidae	Chironominae	Chironominae
Conoesucidae	Ceratopogonidae	Calamoceratidae	Coenagrionidae	Coenagrionidae
Dixidae	Chironominae	Calocidae	Conoesucidae	Corbiculidae
Dugesiiidae	Coloburiscidae	Ceinidae	Corixidae	Cordylophora
Elmidae	Conoesucidae	Ceratopogonidae	Dixidae	Corixidae
Eusiridae	Corduliidae	Chironominae	Dugesiiidae	Culicidae
Eustheniidae	Corixidae	Coenagrionidae	Dytiscidae	Dytiscidae
Gripopterygidae	Corydalidae	Coloburiscidae	Ecnomidae	Ecnomidae
Helicophidae	Dixidae	Conoesucidae	Elmidae	Gerridae
Hydrobiosidae	Dugesiiidae	Corduliidae	Gomphidae	Gomphidae
Hydropsychidae	Dytiscidae	Corixidae	Gripopterygidae	Gripopterygidae
Hydroptilidae	Ecnomidae	Corydalidae	Gyrinidae	Gyrinidae
Leptoceridae	Elmidae	Dixidae	Hydrobiidae	Hydrobiidae
Leptophlebiidae	Empididae	Dolichopodidae	Hydrobiosidae	Hydrometridae
Limnephilidae	Eusiridae	Dugesiiidae	Hydrometridae	Hydrophilidae
Nannochoristidae	Eustheniidae	Dytiscidae	Hydrophilidae	Hydroptilidae
Neoniphargidae	Glossosomatidae	Ecnomidae	Hydropsychidae	Hyriidae
Notonemouridae	Gomphidae	Elmidae	Hydroptilidae	Janiridae
Oligochaeta	Gripopterygidae	Empididae	Leptoceridae	Leptoceridae

Table A3: Lists of key families ... continued

SEGMENT				
Highlands	Forests A	Forests B	Cleared Hills and coastal plains	Murray and Western Plains
Orthoclaadiinae	Gyrinidae	Gerridae	Leptophlebiidae	Leptophlebiidae
Philopotamidae	Helicophidae	Glossosomatidae	Mesoveliidae	Mesoveliidae
Philorheithridae	Helicopsychidae	Gomphidae	Nepidae	Naucoridae
Psephenidae	Hydrobiosidae	Gripopterygidae	Notonectidae	Nepidae
Scirtidae	Hydrophilidae	Gyrinidae	Oligochaeta	Notonectidae
Simuliidae	Hydropsychidae	Helicophidae	Orthoclaadiinae	Oligochaeta
Siphonuridae	Leptoceridae	Helicopsychidae	Parastacidae	Orthoclaadiinae
Tanypodinae	Leptophlebiidae	Hydrobiidae	Physidae	Parastacidae
Tipulidae	Limnephilidae	Hydrobiosidae	Psephenidae	Physidae
	Notonemouridae	Hydrophilidae	Pyralidae	Planorbidae
	Oligochaeta	Hydropsychidae	Scirtidae	Pleidae
	Oniscigastridae	Hydroptilidae	Simuliidae	Pyralidae
	Orthoclaadiinae	Leptoceridae	Stratiomyidae	Simuliidae
	Philopotamidae	Leptophlebiidae	Tanypodinae	Stratiomyidae
	Philorheithridae	Mesoveliidae	Tipulidae	Tanypodinae
	Polycentropodidae	Notonectidae	Veliidae	Veliidae
	Psephenidae	Odontoceridae		
	Ptilodactylidae	Oligochaeta		
	Scirtidae	Oniscigastridae		
	Simuliidae	Orthoclaadiinae		
	Tanypodinae	Parastacidae		
	Tipulidae	Philopotamidae		
	Veliidae	Philorheithridae		
		Physidae		
		Planorbidae		
		Polycentropodidae		
		Psephenidae		
		Ptilodactylidae		

Table A3: Lists of key families ... continued

SEGMENT				
Highlands	Forests A	Forests B	Cleared Hills and coastal plains	Murray and Western Plains
		Scirtidae		
		Simuliidae		
		Stratiomyidae		
		Synlestidae		
		Tanypodinae		
		Temnocephalidea		
		Tipulidae		
		Veliidae		

Table A4: Environmental quality objectives for rivers and streams and estuarine and marine segments - toxicants in water column and sediments.

SEGMENT	INDICATOR				
	Metals	Non-metals	Ammonia	Sulphide	Sediment toxicants
	Maximum	maximum	maximum	maximum	maximum
Highlands	T (99%)	T (99%)	T (99%)	T (99%)	ISQG-low
Forests – A	T (99%)	T (99%)	T (99%)	T (99%)	ISQG-low
Forests – B	T (99%)	T (99%)	T (99%)	T (99%)	ISQG-low
Cleared Hills and coastal plains					
• urban areas	T (95%)	T (95%)	T (95%)	T (95%)	ISQG-high
• all other areas	T (95%)	T (99%)	T (95%)	T (95%)	ISQG-low
Murray and Western Plains					
• urban areas	T (95%)	T (95%)	T (95%)	T (95%)	ISQG-high
• all other areas	T (95%)	T (99%)	T (95%)	T (95%)	ISQG-low
Open Coasts	T (99%)	T (99%)	T (99%)	T (95%)	ISQG-low
Port Phillip Bay	F6				
Western Port	F8				
Gippsland Lakes	F3				
Estuaries and inlets	T (99%)	T (99%)	T (99%)	T(95%)	ISQG-low

Table A5: Environmental quality objectives for marine and estuarine segments - nutrients status and water clarity indicators.

SEGMENT	INDICATOR									
	Total phosphorus	Dissolved Inorganic Phosphorus	Total Nitrogen	Dissolved Inorganic Nitrogen	Chlorophyll <i>a</i>	Dissolved oxygen		Transparency/ PAR Attenuation	Suspended Solids	Turbidity
	µg/L	µg/L	µg/L	µg/L	µg/L	%		m	µg/L	NTU
	75 th percentile	75 th percentile	75 th percentile	75 th percentile	75 th percentile	Annual minimum	Annual maximum	25 th percentile	75 th percentile	75 th percentile
Open Coasts	≤25	≤10	≤120	≤20	≤1	90	110	≥R25	≤R75	≤R75
Western Port	F8									
Port Phillip Bay	F6									
Gippsland Lakes	F3									
Estuaries and Inlets	≤30	≤5	≤300	≤30	≤4	80	110	≥R25	≤R75	≤R75

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Table A6: *E coli* indicators for water used for primary contact recreation and aquaculture

BENEFICIAL USE	INDICATOR		
	<i>E. coli</i> (orgs/ 100ml)	<i>Enterococci</i> (orgs/100 ml) (marine and estuarine segments only)	
	median of 5 samples at regular intervals within 30 days	median of 5 samples taken at regular intervals within 30 days	75 th percentile of 11 samples taken at regular intervals within at least 60 days
• Shellfish harvesting and aquaculture	≤14		
• Primary contact recreation	≤150	≤35	≤150
• Secondary contact	≤1000	≤230	

Guidelines values are based on both ANZECC (2000) - Guidelines for Recreational Water Quality and Aesthetics, and WHO (2001) - Bathing Water Quality and Human Health.

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SCHEDULE B – AREAS OF HIGH CONSERVATION VALUE**B1. Areas of high conservation value**

Areas of high conservation value include those areas in the Aquatic Reserve segment and:

- (1) high value wetlands including wetlands of international importance listed under the Convention on Wetlands (Ramsar, Iran, 1971) and listed in *A Directory of Important Wetlands in Australia* (Environment Australia 2001);
- (2) Fisheries Reserves declared for conservation purposes under Section 88(2)(b)(i) and (ii) of the **Fisheries Act 1995**;
- (3) areas of significance for spawning, nursery, breeding, roosting and feeding areas of aquatic species and fauna listed under the China –Australia Migratory Bird Agreement and Japan – Australia Migratory Bird Agreement, the Convention on Migratory Species of Wild Animals (Bonn, Germany, 1979) and under the **Flora and Fauna Guarantee Act 1988**, and where waste discharge would create barriers to the passage of migratory species

PART 3 – VARIATION TO SCHEDULES OF STATE ENVIRONMENT PROTECTION POLICY (WATERS OF VICTORIA)**SCHEDULE F – POLICY VARIATIONS****5. Variation of Schedule F**

Schedule F is varied by replacing it with the following words:

“The Policy is varied to the extent detailed in any Schedule to the Policy. The Environment Protection Authority will keep a record of all variations to the Policy.”

6. Variation of Schedules F5, F6, and F7

- (1) The following Schedules are varied:
 - (a) *State environment protection policy (Waters of Victoria) Schedule F5 (Waters of the Latrobe and Thomson River Basins and Merriman Creek Catchment)*;
 - (b) *State environment protection policy (Waters of Victoria) Schedule F6 (Waters of Port Phillip Bay)*; and
 - (c) *State environment protection policy (Waters of Victoria) Schedule F7 (Waters of the Yarra Catchment)*

by replacing 0.2T and 0.5T, where they exist, with T in Table 3.4.1 of the *Australian and New Zealand Water Quality Guidelines for Fresh and Marine Water Quality (2000)*. In addition to replacing the objective, the decision and assessment process outlined in the Principle Policy is triggered if the T value is exceeded.

Any reference to “clause 6 of the Principle Policy does not apply to the schedule area” is replaced by “clause 9 of the Policy does not apply to the schedule area”.

Any reference to “clause 7 of the Principle Policy does not apply to the schedule area” is replaced by “clause 10 of the Policy does not apply to the schedule area”.

Any reference to “clause 8 and 9 of the Principle Policy do not apply to the schedule area” is replaced by “clause 11 of the Policy does not apply to the schedule area”.

Any reference to “Clauses 10 to 54 (the Attainment Program) of the Principle Policy, apply in addition to this part for the Schedule area” with “clauses 12 to 58 (the Attainment Program) of the Policy, shall apply to the schedule area”.

- (2) Where the *Australian Water Quality Guidelines for Fresh and Marine Waters* has been referenced, the 2000 version needs to be used. The level of ecosystem protection that needs to be used to determine the objective is:

- (a) 99% for “largely unmodified”, “natural” and “substantially natural” aquatic ecosystems;
 - (b) 95% for “modified” ecosystems;
 - (c) 90% for “highly” or “largely modified” aquatic ecosystems.
- as defined in table 3.4.1 denoted as level of ecosystem protection (% species).
- (3) The following Schedules:
 - (a) *State environment protection policy (Waters of Victoria) Schedule F8 (Waters of Western Port and Catchment)*;
 - (b) *State environment protection policy (Waters of Victoria) Schedule F3 (Gippsland Lakes and Catchment)*;
 are unvaried and remain Schedules to the Policy.

PART 4 – REVOCATION OF REDUNDANT STATE ENVIRONMENT PROTECTION POLICIES

- 7. **Revocation of State environment protection policy No. S-13 (Waters of Victoria) 1988 Clauses 1 to 54 and Schedules A, B, C, D, E F1, F2, F4 and G.**
 The *State environment protection policy (Waters of Victoria) No. S-13*:
 - (1) Clauses 1 to 54;
 - (2) Schedule A;
 - (3) Schedule B - Water quality indicators and objectives;
 - (4) Schedule C - Steam and stream-side spraying of pesticides and herbicides;
 - (5) Schedule D - Minimum control requirements for classes of discharge;
 - (6) Schedule E - Emission limits for waste discharges to water;
 - (7) Schedule F1 - Waters of the Werribee and Little River Catchments;
 - (8) Schedule F2 - Waters of the Maribyrnong River and Tributaries;
 - (9) Schedule F4 - Waters of the Western Metropolitan Region; and
 - (10) Schedule G**are revoked.**
- 8. **Revocation of State environment protection policy No. W – 15A (The Waters of the Wimmera River and Catchment).**
 The *State environment protection policy No. W – 15A (The Waters of the Wimmera River and Catchment)* **is revoked.**
- 9. **Revocation of State environment protection policy No. W – 21 (The Waters of Far East Gippsland).**
 The *State environment protection policy No. W – 21 (The Waters of Far East Gippsland)* **is revoked.**
- 10. **Revocation of State environment protection policy No. W – 34A (The Waters of Lake Colac and Catchment).**
 The *State environment protection policy No. W – 34A (The Waters of Lake Colac and Catchment)* **is revoked.**
- 11. **Revocation of State environment protection policy No. W – 34B (The Waters of the Western District Lakes).**
 The *State environment protection policy No. W – 34B (The Waters of the Western District Lakes)* **is revoked.**
- 12. **Revocation of State environment protection policy No. W – 36A (The Waters of Lake Burrumbeet and Catchment).**
 The *State environment protection policy No. W - 36A (The Waters of Lake Burrumbeet and Catchment)* **is revoked.**

44 *S 107 4 June 2003**Victoria Government Gazette***13. Revocation of State environment protection policy No. S - 12 (The Waters of the Dandenong Valley).**

The *State environment protection policy No. S - 12 (The Waters of the Dandenong Valley)* is revoked.

State environment protection policy (Waters of Victoria)*Explanatory Notes***BACKGROUND****Purpose of State Environment Protection Policies**

State Environment Protection Policies (SEPPs) are declared by the Governor in Council under section 16(1) of the **Environment Protection Act 1970**. SEPPs provide a statutory framework for the protection of the uses and values of Victoria's environments. SEPPs include:

- the uses and values of the environment that the community and government want to protect – these are called **beneficial uses**;
- the **objectives and indicators** which describe the environmental quality required to protect beneficial uses;
- guidance for communities, industries, local government and government agencies on their responsibilities, under the **Environment Protection Act 1970**, to protect and rehabilitate the environment in order to protect beneficial uses – this is called the **attainment program**.

SEPPs set a framework for environmental decision-making and a clear set of publicly agreed environmental objectives that all sections of the community must work together to achieve. Environment protection programs in Victoria are developed within this broad framework.

Policy Impact Assessment

Policy Impact Assessments (PIAs) and supporting background papers provide an explanatory and resource document for future users of State environment protection policies. Copies of the PIA and Policy Background Papers for this SEPP are available from the EPA Information Centre, tel. (03) 9695 2722, and also from the EPA website, www.epa.vic.gov.au.

SEPP (Waters of Victoria) review

The first *State Environment Protection Policy (Waters of Victoria)* was made in 1988. However, while the original SEPP (WoV) recognised both point and diffuse sources, the implementation priority has been on point sources of pollution (e.g. industrial and sewage discharges). As the management of such point sources has significantly improved since 1988, an updated SEPP needs to provide an effective implementation framework to enable the control of the diffuse sources of pollutants now threatening the social, economic and environmental values. Since 1988, there have been many changes to environment protection approaches including the establishment of new bodies for coastal and catchment management and the emphasis on addressing diffuse sources of pollution. New scientific information on the health of water environments has been developed through investigations across the State based on many years of science and data. The revised SEPP has been developed in consultation with all key stakeholders to provide Victorians with an updated statutory framework for the next 10 years to protect Victoria's water environments.

EXPLANATORY NOTES FOR THE POLICY**The Order in Council**

The Policy is preceded by the necessary legal preamble for an Order in Council.

The Purposes of the Order

The purpose of the Order is to replace the SEPP *No. S-13 (Waters of Victoria)* 1988 with this Policy. To do so, clauses 1 to 54 of the 1988 SEPP and Schedules A, B, C, D, E, F1, F2, F4 and G will be replaced with this Policy. In addition, the Order also revokes other redundant regional state environment protection policies that were developed in or before 1988. The revised Policy provides

a more modern and appropriate mechanism for protecting the uses and values of the waterways previously covered by the regional SEPPs. The revised Policy also explicitly endorses the robust catchment and coastal planning processes undertaken to protect these regional waters.

The order commences upon publication in the Government Gazette.

PART I - PRELIMINARY

Title

Clause 1 gives the title of the new Policy – the State environment protection policy (*Waters of Victoria*).

Context

Clause 2 details the context of the Policy. This section seeks to describe who the Policy applies to.

Definitions

Clause 3 provides specific definitions of various words and terms used throughout the Policy. The purpose of these definitions is not to provide a glossary of technical terms but to give a specific meaning to a phrase that may be limited or otherwise different to the meaning currently accepted in every-day language.

Contents

Clause 4 outlines the eight parts to the Policy.

PART II – PURPOSE, PRINCIPLES AND INTENT

Purpose

Clause 5 sets out the purpose of the Policy.

Principles

Clause 6 sets out the principles upon which the Policy is based. They are principles of the **Environment Protection Act 1970**, which clearly enunciate sustainability principles specific to environment protection aims.

Intent

Clause 7 builds on the policy purpose and principles by describing why the Policy was developed and the way we should go about protecting Victoria's surface waters.

PART III – POLICY AREA

Policy area

Clause 8 defines the area of surface waters to which the Policy applies, and explains the surface waters that are excluded from the Policy. The Policy area is represented in Figure 1. Segment definitions are provided in Annex A of the Policy.

Segments

Clause 9 defines segments of the policy area. The policy area was divided into four major segments based on common features in terms of environmental condition, aquatic ecosystem type and a range of current and future beneficial uses.

PART IV – BENEFICIAL USES

Beneficial uses

Beneficial uses are those uses and values of surface waters that are dependent on clean water and need to be protected now and into the future. They are identified and listed in Table 1 of the Policy. The beneficial uses of the Port Phillip Bay, Western Port and Gippsland Lakes segments of the Policy are identified in Schedules F6, F8 and F3 respectively.

PART V – ENVIRONMENTAL QUALITY OBJECTIVES AND INDICATORS

Environmental quality objectives and indicators

Clause 11 describes the level of environmental quality required to protect the beneficial uses and values identified in clause 10, and how this is to be assessed. This clause links to Schedule A of the Policy, which describes a set of physical, chemical and biological indicators that describe the environmental quality needed to protect beneficial uses (listed in Table A1 – A6 of the Policy).

Unless specific objectives are listed in the Policy, the environmental quality objectives are those values specified in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (the Guidelines). The Policy also adopts the Guidelines' risk-based approach for determining if a beneficial use is at risk. Non-attainment of an environmental quality objective will trigger an investigation process to assess risks to beneficial uses and identify actions to address the risks.

The focus of this clause is on maintaining the environmental quality of surface waters that meet (or are better than) the environmental quality objectives, and gradually improving the environmental quality of surface waters where environmental quality objectives are not attained. Environmental quality objectives should be attained as soon as practicable by implementing the actions described in the Attainment Program.

PART VI – ATTAINMENT PROGRAM

The attainment program provides a 10-year framework to protect, maintain and improve the environmental quality of surface waters. In particular the attainment program:

- identifies clear roles and responsibilities for environment protection and rehabilitation; and
- identifies strategic actions and tools to address activities that pose a risk to Victoria's water environments.

The strategic measures in the attainment program support, are integrated with, and build upon Victoria's existing environmental management arrangements (such as regional catchment and coastal planning and management processes).

Practicability

The focus of clause 12 is on making planning and management decisions, and undertaking actions to implement the Policy in the context of environmental, social and economic considerations. This clause also introduces best practice as a way of ensuring effective environmental management and reducing the impacts of activities on surface waters. Practicability and best practice should be applied when implementing the Policy and apply to each clause in the attainment program.

KEY RESPONSIBILITIES FOR IMPLEMENTING THE POLICY

General responsibilities for implementing the Policy

Clause 13 describes the general responsibilities for implementing the Policy. It covers a full management cycle for implementing the Policy by identifying planning, (including prioritisation and target setting), monitoring, evaluation, review, independent audit, reporting and research needs and responsibilities.

Key Responsibilities

Clauses 14 to 23 identify broad responsibilities for Policy implementation, and goals that the Environment Protection Authority, government agencies, local government, catchment and coastal management organisations, water authorities, industries and communities should aim for over the 10 year lifetime of the Policy. In addition, specific responsibilities for implementing key actions identified in the Policy are identified throughout the attainment program.

GUIDANCE

Regional target setting

Clause 24 outlines a process for developing targets to drive the priority driven and progressive rehabilitation of environmental quality. The target setting process was developed in recognition that not all beneficial uses will be protected and not all environmental quality objectives will be attained within the lifetime of the Policy. To protect beneficial uses over the long term, interim goals (i.e. targets) need to be developed to drive environmental improvement. Targets will be set through regional catchment and coastal planning processes.

Guidance on environmental management

Clause 25 sets out the specific guidance documents that will be developed by EPA in conjunction with relevant protection agencies, businesses and communities. All guidance documents will be publicly developed and approved by EPA.

Off-set measures

Clause 26 provides for the implementation of off-set measures, which involve the establishment of a legally binding agreement between a wastewater discharger and the Environment Protection Authority. The clause requires the Environment Protection Authority to develop further guidance for communities and industries on the process and requirements for the development and approval of off-set measures.

Management of discharges to surface waters

Clause 27 is a broad over-arching waste management clause requiring the discharge of wastes and wastewater to surface waters to be managed in accordance with the waste hierarchy to minimise the impact on beneficial uses. In doing so, priority should be given to avoiding the generation of wastewater. The clause also specifies the Environment Protection Authority's responsibilities in licensing a wastewater discharge. Further clauses are included in the Policy to provide more specific requirements for the management of wastewater.

New wastewater discharges

Clause 28 adds to the requirements of clause 27 by setting out requirements for applicants of licenses and works approvals to manage and progressively reduce new wastewater discharges to surface waters in order to minimise threats to beneficial uses. This clause sets out circumstances where Environment Protection Authority will not approve a wastewater discharge and these include areas where a discharge will pose significant environmental or public health risks.

Existing wastewater discharges

Clause 29 adds to the requirements of clause 27 by reflecting the Environment Protection Authority's responsibility for reviewing its licences to ensure compliance with the Policy, with a focus on implementing the waste hierarchy and planning to gradually reduce the impacts of wastewater discharges on beneficial uses.

Mixing zones

Clause 30 allows for the declaration of a mixing zone as part of a licence issued by the Environment Protection Authority if, after all practicable steps are taken, a wastewater discharge will result in the environmental quality objectives being exceeded. This clause ensures flexibility in Policy implementation while still ensuring the protection of beneficial uses.

Management of wastewater re-use and recycling

Clause 31 supports the re-use and recycling of wastewater which has a range of environmental, social and economic benefits. The clause requires re-use and recycling activities to be carried out in a sustainable manner in accordance with guidance provided by the Environment Protection Authority.

On-site domestic wastewater management

Clause 32 requires that domestic wastewater is treated and retained on site in areas where sewerage is not provided. The clause will ensure that the Environment Protection Authority and municipal councils work together to ensure that domestic wastewater permits are consistent with the Policy, and that on-site domestic wastewater management systems are well planned for, managed, maintained and regularly assessed for compliance against permit conditions so that they do not impact on beneficial uses.

Sewerage planning

Clause 33 requires that where reticulated sewerage is required, it must be well planned to minimise the cost to the community and to protect the beneficial uses of surface waters. Water authorities need to engage in sewerage management planning to ensure this.

Connection to sewerage

Clause 34 requires that wherever sewerage is available, premises must connect to sewer unless all wastewater can be treated and contained on-site. Water authorities are responsible for the implementation of this clause.

Sewerage management

Sewerage infrastructure must be designed and managed to appropriate standards to minimise the risk to beneficial uses from sewage spills and overflows. Clause 35 states that the Environment Protection Authority is responsible for providing advice to water authorities on these matters and for ensuring that sewerage treatment works are not constructed on floodplains.

Saline discharges

Increasing surface water salinity threatens the aquatic ecosystem and the usefulness of water for drinking and agriculture. Clause 36 therefore requires that discharge of saline wastewater is managed in accordance with the principle of the waste hierarchy and in accordance with the relevant approved salinity plans and strategies.

Chemical management

Clause 37 requires that potentially hazardous chemicals are used and stored in such a way that minimises the environmental risk to beneficial uses. Further guidance will be developed in consultation with relevant protection agencies and stakeholders to assist in the implementation of this clause.

Spills, illegal discharges and dumping of waste

The discharge of oil and other noxious substances into surface waters presents a risk to the aquatic ecology and dependent industries, and is costly to clean up. Clause 38 therefore requires that all practicable steps need to be taken to minimise the risk of spills, illegal discharges and dumping of waste. This clause reflects current national, statewide and regional response and clean-up arrangements for marine spills. It also sets out a process for the identification and implementation of response and clean-up measures for inland spills (including the responsibilities of surface water managers and where relevant municipal councils). This clause also outlines the Environment Protection Authority's responsibilities for enforcement under the relevant Acts of Parliament.

Animal wastes

The entry of animal wastes to surface waters can cause elevated nutrient and pathogen levels, which may result in water becoming unsafe for swimming, fishing and aquaculture. Clause 39 requires that steps be taken to prevent animal wastes from entering surface waters and outlines the responsibilities of protection agencies to assist the implementation of this clause.

WATER MANAGEMENT**Water conservation**

Water conservation is essential to ensure the availability of water of adequate quality and quantity for future generations and to protect beneficial uses. Clause 40 outlines the role of protection agencies, businesses and communities in the implementation of water conservation measures.

Water allocations and environmental flows

Clause 41 sets out measures to ensure that adequate environmental flows are provided to waterways, wetlands, lakes and estuaries and that water allocations are made in accordance with the appropriate process and legislation. In addition, this clause identifies the Department of Sustainability and Environment as responsible for the development of a program to review and periodically independently audit the provision of environmental flows and their effectiveness in protecting beneficial uses.

Releases from water storages

Clause 42 outlines the responsibilities of relevant water authorities and other water storage operators in monitoring, managing and responding to the risks and impacts of releases from water storages.

Surface water management and works

The undertaking of works in and near surface waters can pose a risk to beneficial uses, particularly from excessive sedimentation of streams. Clause 43 identifies the responsibilities of surface water managers in taking precautions to minimise this risk.

Dredging and desilting management

Dredging and desilting works need to be undertaken in such a way that the risk to the aquatic ecosystem, in particular, is minimised. Clause 44 states that such works be undertaken in accordance with best practice guidelines as issued by the Environment Protection Authority.

Groundwater management

Clause 45 requires that surface water quality must not impact on the beneficial uses of groundwater, and that groundwater quality must not impact on the beneficial uses of surface waters. The SEPP (Groundwaters of Victoria) sets out beneficial uses and environmental quality objectives for groundwater.

Urban stormwater

Urban stormwater runoff can have significant impacts on receiving surface waters. Clause 46 outlines roles and responsibilities for ensuring that practicable measures are undertaken to minimise these impacts.

Ports, marinas and vessels

Port, marina and vessel operation and maintenance activities need to be managed to minimise environmental risks to beneficial uses. In particular Clause 47 prohibits the discharge to surface waters of sewage, oil, garbage, sediment, litter or other wastes from these activities. This clause sets out the specific roles and responsibilities of the relevant parties.

Aquaculture activities

Aquaculture operations can have impacts on beneficial uses if not well managed. Clause 48 sets out the requirements of the Environment Protection Authority, the Department of Primary Industries, Department of Sustainability and Environment and aquaculture operators for ensuring that are well managed, (through implementation of environmental management systems and monitoring programs) to avoid impacts on the beneficial uses. Aquaculture operations need to be located in areas where the environmental quality is sufficient to sustain the operation.

Aquatic pests

The introduction and spread of marine and freshwater pests can have serious impacts on aquatic ecosystems and consequently on social and economic uses of water. Clause 49 outlines and supports activities which prevent the introduction of aquatic pests, and also encourages management of ongoing impacts of existing aquatic pests.

CATCHMENT MANAGEMENT**Agricultural activities**

The extent of agricultural land across the state means that it is a critical source of potential pollutants of surface water. Agricultural activities therefore need to be managed to minimise impacts on surface waters. In particular, clause 50 outlines responsibilities of landholders and protection agencies to develop and implement practicable actions by using the appropriate planning and management tools (e.g. environment management systems, cleaner protection and eco-efficient practices) as agreed in regional planning and target-setting processes (e.g. regional catchment strategies) to decrease the impacts of activities and move towards attainment of environmental quality objectives.

Irrigation channels and drains

The discharge of irrigation drainage can have a significant impact on Victorian rivers, lakes and wetlands. Clause 51 therefore requires that artificial irrigation channels and artificial irrigation drains must be designed and managed so that their impacts on surface water and groundwater is minimised, and so that their waters are not harmful to humans or have unacceptable impacts on animals. The clause outlines the responsibilities of relevant protection agencies and industries to develop and implement measures (such as best practice) to minimise pollutants entering drains and to monitor and audit the impacts of irrigation drain discharges on surface waters.

Intensive agricultural industries

Intensive agricultural industries can be a significant threat to beneficial uses if not well managed. Clause 52 therefore prohibits the discharge of waste and wastewater from intensive agricultural industries (as defined in clause 3) to surface waters. It also requires that further guidance for industry on the management of wastewater from intensive agricultural industries is developed by the Environment Protection Authority and the Department of Primary Industries.

Vegetation protection and rehabilitation

The protection and rehabilitation of native vegetation can have significant positive effects on the beneficial uses of waters. Clause 53 requires communities and government to work together, through regional planning and target-setting processes, to protect and rehabilitate native vegetation. The clause supports a goal of net gain in extent and quality of native vegetation.

Recreational activities

Recreational activities involving inland and coastal waters depend on healthy waters, but at the same time these activities can impact on beneficial uses. Clause 54 states that recreational users of surface waters and managers of recreational activities need to take precautions to minimise their impact on beneficial uses.

Forestry activities

Forestry activities can impact on beneficial uses of surface waters, particularly through runoff of sediment. Clause 55 states that the Environment Protection Authority and the Department of Sustainability and Environment need to develop guidance on minimising the impacts of sediment runoff from forestry activities, and in particular makes provision for independent auditing of forestry activities.

Construction activities

Construction practices that fail to control pollution can cause damage to waterways and wetlands. Clause 56 states that construction activities need to be conducted so that impacts on surface waters are minimised. Guidance provided by the Environment Protection Authority can assist in minimising impacts.

Roads

Roads, particularly unsealed roads, can impact on waterways through the runoff of sediment and other pollutants. Clause 57 requires roads to be managed to minimise the risk of impact on surface waters. A particular priority is placed on the closure of roads that are no longer needed.

Extractive industries

If not managed appropriately, extractive industries, such as mines and quarries, can have major environmental impacts on both surface waters and groundwaters. Clause 58 requires the EPA and operators of extractive industries to take responsibility for minimising the impact of extractive industries on waters. In particular, EPA needs to license discharges of wastewater from extractive industries.

PART VIII - ANNEXES**Segment Definitions**

Annex A provides a definition of each segment.

PART IX – SCHEDULES**Environmental quality objectives and indicators**

Schedule A provides environmental quality objectives and indicators, as referenced in the Policy.

Areas of high conservation value

Schedule B provides a list of areas of high conservation areas, as referenced in the Policy (in particular clause 28).

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Gazette Services

The *Victoria Government Gazette* (VGG) is published by The Craftsman Press Pty. Ltd. for the State of Victoria and is produced in three editions.

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The *Victoria Government Gazette* is available by three subscription services:

General and Special — \$198.00 each year

General, Special and Periodical — \$264.00 each year

Periodical — \$132.00 each year.

All prices include GST.

Subscriptions are payable in advance and accepted for a period of one year. All subscriptions are on a firm basis and refunds will not be given.

All payments should be made payable to

The Craftsman Press Pty. Ltd.

Subscription enquiries:

The Craftsman Press Pty. Ltd.

125 Highbury Road, Burwood Vic 3125

Telephone: (03) 9926 1233

Fax (03) 9926 1292

The *Victoria Government Gazette* is published by The Craftsman Press Pty. Ltd. with the authority of the Government Printer for the State of Victoria

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ISSN 0819-5471

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Government Printer for the State of Victoria
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Melbourne 3002
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Subscriptions

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125 Highbury Road, Burwood

Victoria, Australia 3125

Telephone enquiries: (03) 9926 1233

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Price Code D