



Victorian Chapter: Australian Coastal Society Submission

Draft State Environment Protection Policy SEPP [Waters] February 2018

1. Introduction

The Australian Coastal Society (ACS) is a national organisation comprising professionals, individuals, businesses and groups with expertise and/or interest in coastal planning and management. The ACS is dedicated to achieving healthy coastal ecosystems, vibrant coastal communities and the sustainable use of natural resources. The concept of Integrated Coastal Zone Management (ICZM) is central to our objectives.

The Victorian Chapter (ACS Vic) appreciates the opportunity to contribute to this Draft Policy, SEPP [Waters], which aims to provide a framework to protect and improve the quality of Victoria's waters for the next ten years, having regard to the principles of environment protection set out in the *Environment Protection Act 1979*.

To that end we provide both general and specific comments.

2. General comments

We strongly support:

[a] the combination of the SEPP [Waters of Victoria]; the five regional schedules, the *SEPP [Groundwaters of Victoria]* and the territorial sea adjacent to the State into a new single policy. We note that it will cover surface waters, marine waters and estuarine waters, providing an integrated and connected "whole of life" water cycle.

[b] the incorporation of new science and national guidelines and the amalgamation of location-specific schedules [including surface water and groundwater] to apply state-wide. We expect that this will lead to improved standards.

[c] We note the possibility that elements of the new SEPP [Waters] will be strengthened by moving them into core legislation, regulation, and relevant codes of practice or referenced in the *Victoria Planning Provisions*. [Draft Implementation Plan for Consultation p16]. We consider these to be vital actions and strongly recommend that this be given a high priority.

[d] We note the reviews and updates identified within the Draft Implementation Plan for Consultation September 2017 and especially support these. eg [Ensure Ministerial Guidelines for preparation of a Safety & Environmental Management Plan p23] to guide wastes and wastewaters from ports, marines and vessels.

3. Concerns and additional recommendations

[a] Plastics [including micro plastics] must be included as a specific “new” high risk threat to water quality and beneficial uses.

[b] Stormwater and sewerage systems must be improved to reduce sewerage overflow into surface waters and inland flooding caused by increased storm events and climate change.

[c] SEPP [Waters] wording. Whilst recognising the existence and benefits of organisational partnerships and expectations, we have concerns from the compliance aspect regarding the strength and intent of the wording of the “practicality” section. We also have concerns on the qualifications stated regarding resources. [SEPP Waters p.12].

[d] Consideration and Implications of Coastal Acid Sulphate Soils

[a] Plastics, [including micro plastics ie pieces of plastic smaller than five millimetres in diameter] must be included as a specific “new” high risk threat to water quality and beneficial uses.

“Litter” is already listed as a pollutant [SEPP Waters p.7] and regarded as having potential to impact on water quality and subsequent beneficial uses. Due to recent research both internationally and locally, [*Clean Bay Blueprint Microplastics Report Port Phillip EcoCentre 2018*] plastic should now be included as either a subsection under “litter” or within its own category.

Plastics are a “contamination that is a human induced change that is producing a noticeable or measurable change in our water quality characteristics.” [SEPP Waters p.5]. It has the potential to impact on beneficial uses including ecosystem condition, marine species, primary contact human recreation, their enjoyment of amenity and appreciation of aesthetic values. It also has the potential to impact on human health through the eating of fish and other marine species which have ingested plastic.

The Australia Senate Inquiry 2015-16 recognised threats posed by microplastics on marine ecosystems. It recommended active support for research into the threats and extent of pollution.

Worldwide, a strong body of scientific evidence has now highlighted the potential for plastics to harm aquatic life in waterways and coastal and marine ecosystems. Over six hundred and ninety species [including listed threatened species] have encountered plastic pollution. (Gall and Thompson, 2015). Ingestion of plastic, can lead to injury, and death through blocking of the digestive tract and organ rupture. (Lavers et al., 2014). Just this month [June 2018] overseas, a pilot whale has died, with the autopsy revealing the cause to be the ingestion of plastic which had continually built up within the digestive system.

Given the importance of Australia’s endemic species, plastics must be included as a new threat. Laboratory research on toxic chemicals associated with plastic ingestion has identified that they bio accumulate and biomagnify up the food chain. This increasing concentration of toxic chemicals in the tissues of organisms at successively higher levels in a food chain has been linked to disease and death in several top predators (Gall and Thompson, 2015). Additional laboratory based research suggests that these impacts could affect human health if affected fish or other aquatic species are eaten. (Brillant and MacDonald, 2000); (Browne et al., 2008), (Murray and Cowie, 2011) (Browne et al., 2013), (Rochman et al., 2013).

More locally, recent studies in the Port Phillip Bay catchment have found increased plastic litter to be entering coastal and marine areas. [*Pilot study to identify the extent of micro plastics in the Maribyrnong and Yarra Rivers and Port Phillip Bay -July 2014*] [*Clean Bay Blueprint Microplastics Report*] (2017-2020). This research also determined that microplastics are “mostly parts of broken up larger plastic products.”

Specifically, *the Clean Bay Blueprint Microplastics Report* highlighted the existence and dispersion of over eight hundred and twenty – eight million litter items that flowed into Port Phillip Bay annually from the Maribyrnong and Yarra rivers’ surface waters. In addition, over six hundred and twelve million (74%) of these items were microplastics and formed the bulk of the litter.

Given this evidence, we request that appropriate quantitative and qualitative reduction targets be introduced to better record the occurrence of plastics and microplastics within the “litter” section of the SEPP Policy and Implementation Plan.

Specifically it should be included in Schedule 3: Environmental Quality Indicators and Objectives – Table 1 as the table does not contain an indicator relating to plastic, both micro and macro. The table includes indicators such as Toxicants Water and Toxicants Sediment, however these do not adequately address the problem of plastics in water. The table should include indicators for acceptable levels of micro plastics and macro plastics within the waterways.

We recommend that Government also provide additional funds to responsible authorities to initiate this program.

[b] Stormwater and sewerage systems must be improved to reduce sewerage overflow into surface waters and inland flooding caused by increased storm events and climate change.

Whilst noting and strongly supporting Critical Actions 3: “managing urban stormwater and sewerage” and 4: “managing wastewater discharge” [Draft Implementation Plan for Consultation p.12,] we query whether adequate consideration of future climate projections [Bureau of Meteorology], population growth and land use change have been adequately considered.

Stormwater and sewerage infrastructure:

With predictions of sea level rise, combined with storm surge and increased catchment flows from storm based events, we are concerned that this infrastructure will be unable to manage both increased water flows into the pipes and the potential blockages of pipe outlets. For example, in 2007, Lakes Entrance experienced flooding from such an event causing the outlet pipes at the coast to be blocked by the sea. This precluded storm water from passing through the piping system to the respective outlet. Inland flooding occurred because of the rain event but was exacerbated because the storm water system was blocked.

Given climate change predictions and population growth we consider that the current 1: 5 rule for sewerage overflow needs reviewing.

Legacy issues with relevant infrastructure to adequately manage discharges to land buffers are of concern.

Industrial Legacies and impact on surface and groundwater:

Some existing industrial areas are not able to adequately manage their discharges, often due to a rain event or sea surge. [The Draft Moolap coastal strategic PLAN 2017 DELWP]. Whilst their industrial locations were considered reasonable when initially developed, higher rainfall intensities and location near coasts impacts on their effective waste discharge management. Whilst buffer areas identified originally may have sufficed, the Moolap example highlights that these buffer areas are no longer effective. Hence discharges may impact on surface and /or groundwater.

“Existing industries north of Portarlinton Road, including Buckley Grove and Hays Road provide over 450 direct jobs with many requiring separation distances to sensitive land uses. The 60 hectare industrial estate to the south of Portarlinton Road has over 300 individual owners, is well occupied, but subject to flooding and potential contamination, and therefore is not suitable for alternative uses.” [The Draft Moolap coastal strategic framework Plan DELWP p.20]

and

“The former saltworks/wetlands are already subject to inundation. Predicted sea level rise at year 2100 shows the majority of the saltworks to be inundated and Portarlinton Road to be over-washed. The interrelationship between the drainage outflow through the saltworks, the existing sea wall, the salt ponds and predicted sea level rise is dynamic and complex. The Government’s preferred strategy is to allow for natural coastal process (coastal retreat) with low lying areas being permanently inundated as this has been found to be more environmentally responsive and cost effective than construction of defence structures”. [The Draft Moolap coastal strategic framework PLAN 2017 DELWP]

Improved authorising conditions and outcomes are necessary to maintain and improve water quality and beneficial uses. Hence we strongly support DELWP and the EPA to undertake a detailed assessment to determine if regulations would be better suited to address impacts for wastewater management and urban stormwater management.

[c] Policy wording of the SEPP [Waters] document.

We recommend that the wording be more definitive, more robust, and, where applicable, should provide more information to guide and ensure that action is taken.

We consider that the current wording within SEPP [Waters] may weaken policy outcomes and objectives and create difficulties for responsible authorities to negotiate with or prosecute offenders.

We provide specific comment below on SEPP [Waters]:

Section 24. Use of offset measures to protect beneficial uses

The Authority may approve an application to discharge wastewater of a lower quality than would otherwise be acceptable, for a specified period, if the occupier of the premises agrees to, in consultation with the community and the relevant waterway manager, implement and maintain offset measures that offer equivalent or greater protection of beneficial uses within the affected catchment or segment.

Comment:

The policy needs to be more definitive, more robust, and should include more detailed information

to guide this process.

We question what qualifies as an acceptable offset measure and whether this may be amended over time as has occurred within the Victorian native vegetation offset policies. The Draft Implementation Plan gives little guidance on what role, if any, the community has and whether they are a consultee.

Section 32. Planning schemes and permits

(1) If relevant, planning authorities must have regard to this Policy when developing and amending planning schemes under the Planning and Environment Act 1987.

(2) If a planning permit is required by a planning scheme the responsible authority may where appropriate, consider this Policy.

Comment:

The policy needs to be more definitive and robust to ensure action is taken. Part 2 should be reworded to either:

(2) If a planning permit is required by a planning scheme the responsible authority, where appropriate, must consider this Policy.

(2) If a planning permit is required by a planning scheme the responsible authority, where the development or use would result in an impact on Victoria's Waters, must consider this Policy.

Section 34. Urban Stormwater

(1) Stormwater must be managed in order to avoid or minimise risks posed to beneficial uses by minimising the impacts of flow, sediments, nutrients, pathogens, toxicants, litter and other pollutants in surface waters.

(2) Councils must ensure all new developments meet the objectives for environmental management of stormwater as set out in the Best Practice Environmental Management Guidelines for Urban Stormwater to—

(a) minimise the quantity of stormwater leaving the property boundary and to hold or use it as close to where it is generated as possible; and

(b) minimise the pollution of stormwater.

(3) Owners and managers of assets created to protect water quality, including constructed sediment ponds and wetlands, must ensure assets are—

(a) maintained for the purposes for which they were constructed; and

(b) designed and managed so they are not harmful to humans or have unacceptable impacts on animals; and

(c) managed so that their impact on beneficial uses in receiving waters is minimised; and

(d) renewed or replaced with substitute assets, so that discharges from these assets meet equivalent environmental quality objectives.

(4) Councils must, in consultation with the Authority, catchment management authorities established under the Catchment and Land Protection Act 1994, water corporations, landowners and the community, develop and implement stormwater management or equivalent plans that—

(a) identify potential adverse impacts of stormwater; and

(b) identify options to prevent the generation and transport of pollutants in stormwater; and

(c) identify options to minimise the generation, velocity and volume of stormwater flows; and

(d) identify the options for stormwater reuse; and

(e) identify preferred options, together with costs, funding needs, timelines and priorities; and

(f) outline a monitoring, reporting and evaluation program.

Comment:

As discussed earlier, Part 1 should be updated to include plastics. Plastics [including microplastics] are not referenced in the policy and their presence within Victoria's waters is a significant issue that needs to be singled out as a priority to be addressed.

Part 2 should be reworded as:

Councils must ensure all new developments meet the objectives for environmental management of stormwater as set out in the *Best Practice Environmental Management Guidelines for Urban Stormwater* (or as superseded by an updated document) to—

We question whether Part 3 puts an enforcement responsibility on the EPA for assets and whether this includes all raingardens and stormwater assets within private developments.

We note generally that resourcing actions will be via existing funding arrangements [Draft Implementation Plan for Consultation], however, with increased responsibilities and enforcement we recommend increased funding for implementation of this new identified threat.

Section 39. Minimising runoff of pollutants from agricultural activities

(1) An occupier of premises used for agricultural activities must, so far as practicable, implement measures to minimise runoff of pollutants from that premises to waters.

(2) For the purposes of subclause (1), measures may include—

(a) reducing runoff of animal wastes by—

(i) collecting and safe disposal of animal wastes; and

(ii) managing stock access to surface waters;

(b) reducing toxicant runoff through appropriate use of agricultural and veterinary chemicals;

(c) controlling nutrient and fertiliser use near waters;

(d) reducing sediment runoff through the implementation of soil conservation and erosion control measures, including the management of stock access to surface waters and runoff from areas of high stock concentration and farm roads;

(e) reducing sediment, toxicant, saline and nutrient runoff from irrigated land to irrigation drains by using efficient irrigation practices;

(f) implementation of the wastes hierarchy.

Comment:

We are concerned with use of the wording such as “so far as practicable” as it provides little ability for the EPA or other authorities to enforce this section.

We question this section of the policy as in our opinion it relies heavily on voluntary action with little incentive to comply and little deterrence where it is not complied with.

Whilst recognising improved farming practices via industry programs and grants, we question how this policy will implement further change in farming practices and thus maintain / improve water quality. Many farming businesses are intensifying to improve profit, [eg dairy in Western Victoria], whilst others are aggregating smaller farms into large businesses. [eg raised bed cropping]. Best Practice Guidelines were developed over ten years ago, however, new owners [some international] may not be aware of Victoria’s policies.

We suggest that measurable targets be identified and directly actioned through the implementation plan in conjunction with industry and organisations.

We note that according to Keeney and Hatfield [*“The Nitrogen Cycle, Historical Perspective and Current and Potential Future Concerns”*2001], solutions will ‘involve looking beyond the edge of effects to redesigning agriculture that will tighten up the Nitrogen cycle’, and ‘policies will need to be developed that assure the farmer and the public that such measures will not cost productivity, and that a redesigned agriculture can provide for future food needs’...

And that In Denmark, ‘a fairly strict regulatory regime has resulted in almost a 50 per cent reduction in nitrogen leaching since the mid-80s’ (Ref: <http://www.edowa.org.au/tag/diffuse-source-water-pollution/>)

Section 45. Native vegetation protection and rehabilitation

(1) For the purposes of section 60(1)(f) of the Planning and Environment Act 1987, if an application is for the removal of native vegetation, the responsible authority is to consider the impact on water quality from the proposed removal, and the role of native vegetation in protecting water quality and waterway and riparian ecosystems.

(2) Relevant protection agencies must coordinate the rehabilitation of riparian and instream vegetation, native coastal vegetation and marine vegetation identified through annual business planning and regional native vegetation waterway management plans.

Comment:

Part 1 includes a mistake in the reference to the P & E Act. The Section in the Act should read as: 60(1 A) (f) of the Planning and Environment Act 1987.

ACS Vic is aware that native vegetation is not protected in all Planning Schemes and thus a planning permit is not always required for its removal. An example of this is Moreland City Council. Therefore,

the Council may not be aware and may not have any power to act on this provision. Thus the benefit to Victoria's Waters of retaining native vegetation may not be fully captured.

We suggest that DELWP work with Councils' to implement Vegetation Protection Overlay's across all land within Victoria. The benefits of retaining vegetation are wider than water quality; it also assists with climate change and the Urban Heat Island Effect.

Section 50. Dredging and desilting management

(1) A person that undertakes dredging and desilting activities must manage their activities to minimise impacts on beneficial uses of waters.

(2) To achieve this a person must, so far as practicable, adopt the environmental management practices as outlined in the Best Practice Environmental Management Guidelines for Dredging.

Comment:

We query to what extent must impacts on beneficial uses of waters be minimised and in regard to Part 1, how must these persons undertake the activities to meet this target.

Again we are concerned that the use of the wording "so far as practicable" provides little ability for the EPA or other authorities to enforce this section.

This section of the policy relies heavily on voluntary action with little incentive to comply and little deterrence where it is not complied with.

We are also concerned on how this section of the policy is enforced and how measurable targets are to be set.

Section 52. Aquatic Pests

Vessel owners and operators should implement effective maintenance practices to prevent the introduction and spread of aquatic pests from biofouling on vessels.

Comment:

ACS Vic note that an effective maintenance practice together with measurable targets have not been identified. The latter is important to enable enforcement where required. We recognise earlier voluntary actions for this sector and query whether stronger legislation is required to minimise the introduction and spread of aquatic pests.

Schedule 1. Clause 3 Segment definitions - Explanatory Notes

The Urban segment extends the previous Urban Waterway segment in the Yarra catchment to include the broader metropolitan area of Melbourne. This segment has been included so that environmental quality objectives that are more reflective of modified environments can be applied. Objectives for this segment are based on reference sites in modified agricultural areas, so represent a condition for urban waterways that are largely free of urban impacts and therefore are still a target

for improvement. The Urban segment also excludes the main stem of the Yarra, Maribyrnong and Werribee rivers to protect the better water quality of these waterways.

Schedule 3: Clause 2. Inland Waters

(5) For the purposes of the Urban segment, the objectives identified in Table 1 apply, except for the areas of the main stem of the Yarra, Maribyrnong and Werribee rivers, which apply the objectives of the Central Foothills and Coastal Plains segment.

Comment:

The Urban Segment excludes the main stem of the Yarra, Maribyrnong and Werribee Rivers to protect their water quality. More stringent environmental quality indicators and objectives are applied to the main stem of these rivers when located within the urban segment, as compared to all other waterways within the urban area. However, there are many waterways, such as the Merri Creek which is one of the Yarra's main tributaries, which feed directly into the main stem of these rivers. Therefore, lower environmental quality thresholds within other waterways that feed into the main rivers will directly impact on the quality achieved in the three main rivers listed.

The policy should be amended to provide for improved water quality within all urban environments and thus improved water quality within the bays/ocean at which these waterways discharge.

Schedule 3: Environmental Quality Indicators and Objectives – Table 1

Comment:

As noted in the above section on plastics, the table does not contain an indicator relating to plastic, both micro and macro. The table includes indicators such as Toxicants Water and Toxicants Sediment, however these do not adequately address the problem of plastics in water. The table should include indicators for acceptable levels of microplastics and macroplastics within the waterways.

[d] Consideration of Coastal Acid Sulphate Soils [CASS]

We note that the SEPP [Waters] does not appear to mention coastal acid sulphate soils. We encourage you to refer to the Victorian Coastal Acid Sulphate Soils Strategy 2008 and associated Best Practice Guidelines.

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Thank you for the opportunity to provide comment and recommendations on the Draft SEPP [Waters].

Should you require more information or clarification on this submission please contact me.

Best wishes

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A Voice for the Coast

