



Draft EPA Urban Stormwater Management Guidance

Submission

December 2020

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“MAV Submission – Draft EPA Urban Stormwater Management Guidance” has been prepared by the MAV for discussion with member councils, and the State Government on urban stormwater management.

While this paper aims to broadly reflect the views of local government in Victoria, individual councils will also respond to issues specific to, and on behalf of, their communities. The MAV thanks and acknowledges the contribution of those who have provided their comments and advice in the development of this submission.

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1 Executive summary

We welcome the release of the EPA's Draft Urban Stormwater Management Guidance and its collation of scientific and technical insights that will enable stormwater management practices to better meet pollution reduction objectives and insights shared across the development, land-use and infrastructure sectors. It is a timely reminder of the urgent need for continued improvements to be made to the way urban stormwater is managed to minimise the risk of harm to human health and the environment, through informed advice.

Predictions that the total area of impervious surfaces will almost double over the next 30 years, and that urban growth is likely to generate 80GL of stormwater every year across Melbourne (equivalent to 32,000 Olympic size swimming pools), are salutary warnings that action and planning on stormwater management now is vital to maintain the liveability of Melbourne and Victoria's regional towns and cities. Increased flood risks to life and property will need to continue to be appropriately mitigated.

A key feature of Victoria's economic recovery from the COVID-19 pandemic will be the significant construction and housing developments being planned over the next few years as a result of Federal and State Government stimulus policies. It remains as important as ever that this new infrastructure has regard for the opportunities water-sensitive urban design creates in reducing heat island effects, maintaining environmental values and utilising all water sources to their maximum potential.

The liveability of local places achieved through increased water sensitive urban design is also critical if towns and cities are to continue to provide places where communities want to live and work, and attract new residents, visitors and other business investors.

Incorporating this document as a statutory requirement in all planning schemes as soon as possible is important to locking in the long-term outcomes from development. Built form lasts for many years, so commencing the consultative steps to replace the current guidance cited in planning schemes now is vital. The current Urban Stormwater Best Practice Environmental Management (BPEM) guidelines have not been updated since 1999.

We also welcome the EPA's clarification that councils' obligations under the SEPP Waters 2018 will continue to operate until 2023, to enable an orderly transition and development of relevant instruments that will assist them manage their General Environmental Duty in their capacity as land and infrastructure managers.

Funding support from DELWP will be required to enable councils, their communities and the development industry meet the imperatives generated by this new 'state of knowledge'.

In respect of the guidance content, we are concerned that one particular proprietary modelling tool is being recommended by EPA. We suggest this reference be removed from this document given there are a range of tools available and there are opportunities for new ones to emerge more quickly than this document is likely to be updated. The guidance document would be more useful if it outlined the ingredients that would be useful to be factored into modelling tools so that users can more easily understand the information being generated.

Significant improvements for stormwater management can be achieved by the actions of many delivering a cumulative large effect. State government support to update and support the ongoing provision of the STORM tool will particularly assist many small-scale landowners consider and demonstrate they are meeting optimal stormwater management requirements when they apply for planning permits.

We provide the following suggestions for changes to the guidance document:

- Clearer articulation of the target audiences and how they can use this document. This will enable greater clarity for the various audiences using the document, including small and large-scale developers and a variety of regulatory authorities and government agencies, including councils, water authorities, the Victorian Planning Authority, Victorian Building Authority, Department of Transport, VicTrack, etc.
- Delete references to specific commercial software modelling offerings in the guidance document, and instead develop protocols outlining what constitutes an appropriate tool for demonstrating compliance with the new Urban Stormwater Management Guidance

Transforming the science collated in this guidance document into action will require supporting actions that will need investment from the Victorian Government if they are to be expedited quickly. These include:

- Immediately commencing the process to incorporate the EPAs urban stormwater guidance into all Victorian planning schemes.
- Providing \$10 million for a two-year funding program from 1 July 2021 to support councils review and develop template municipal stormwater management plans, including incorporating sub-catchment and regional scale approaches to enable efficient allocation of management effort and development of the appropriate regulatory instruments that may be required when the SEPP Waters
- Committing to ongoing provision of planning tools by DELWP to assist and expedite small to medium-sized landowners understand how they can meet optimum stormwater management standards from their developments. Upgrading and providing ongoing support for the STORM tool is particularly important in reducing compliance costs for small-scale developments.

We note that a number of our proposed recommendations will be relevant for DELWP as the policy lead rather than EPA. These are identified where relevant.

2 Introduction

The MAV welcomes the opportunity to provide comments on the EPA Draft Urban Stormwater Management Guidance.

Councils are integrally involved in the management of urban stormwater, with multiple roles and interests in stormwater, including as a:

- *Responsible authority and planning authority*
Councils issue permits for use and development of land which have to comply with the relevant planning scheme. Planning schemes reference standards in the SEPP Waters and the Best Practice Environmental Management for Urban Stormwater (BPEM). Councils develop and implement local planning policies, such as Environmentally Sustainable Development Local Planning Policies which include water efficiency objectives and requirements.
- *Infrastructure manager of public stormwater assets*
Sections 198-201 of the Local Government Act 1989 provide authorizing powers for councils to manage public drainage within their municipal area. The 38 councils in the Melbourne Water service area take responsibility for drainage, outfall and stormwater infrastructure under 60 hectares in scale and volume, with Melbourne Water being responsible for assets over 60 hectares.

Collectively, Victorian councils manage approximately 35,000 kilometres of drainage pipes and 1.4 million stormwater pits with estimated replacement costs being many billions of dollars. Some also manage outfalls directly to Westernport and Port Phillip Bay and oceans. Councils are a road authority under the Road Management Act 2004. They maintain the drainage required to protect the operation of the roads for which they are responsible.

Under the SEPP Waters councils are required to have stormwater management plans, developed in consultation with water authorities and local communities.

- *Community advocate and public place manager*
Councils have a significant role in shaping their local communities and creating places that are safe and livable.

The commencement of the new environment protection regime on 1 July 2021 will introduce new Environmental Reference Standards and a new General Environmental Duty (GED) on all land and infrastructure managers not to pollute. The MAV has signaled the importance of the EPA working with councils to consider the transition from the cessation of the urban stormwater SEPP Waters Clauses in 2023, and the replacement statutory instruments that will be required to enable them to manage their GED responsibly and practicably.

This submission builds on comments about urban stormwater which we have provided in the past, including the MAV's responses to the [Environment Protection Regulations and other regulatory instruments \(2019\)](#), [Improving Stormwater Management Ministerial Advisory Committee \(2018\)](#) and [Draft SEPP Waters \(2018\)](#).

3 MAV comments

Victoria's 79 councils are committed to achieving the outcomes that improved management of stormwater can bring for their communities, both from a social, environment and economic perspective. Retaining liveability for Victoria's cities and towns is vital to attracting people to live in metropolitan and regional centres, protecting the environment. Managing stormwater efficiently where actions are most effective will also drive greater levels of efficiency, which in turn reduce costs for residential and business landholders.

The EPA's stormwater management guidance is therefore timely in informing the technical standards that will assist regulators and land-use developers better manage stormwater. Considerable advances in knowledge have occurred since the last Urban Stormwater Best Practice for Environmental Practice was released in 1999, particularly the insights and awareness of the problems flows of water cause. The document's focus on technical standards is also useful, with implementation better dealt with through our powers and instruments.

Melbourne Water's Healthy Waterways Strategy for greater Melbourne suggests that urban growth could generate 80GL of stormwater (equivalent to 32,000 Olympic swimming pools) every year, with these increased flows adding to the scouring, polluting and degradation of the waterways communities rely on for local liveability, tourism and maintenance of the environment and biodiversity.

Despite the short-term reductions in Victoria's population growth in 2020 and 2021 due to the restrictions imposed by the COVID-19 pandemic, Federal and State Budget expectations continue to be that Victoria will experience population growth over the next 50-year period. Projections before COVID-19 were that the population of Melbourne is expected to exceed eight million by 2051¹. Modelling by DELWP suggests that if this urban growth is accommodated in the same way it has been until now, by 2051 the total area of impervious surfaces and stormwater runoff will almost double². Every time new buildings, roads and carparks are built, the total impervious area increases.

Population and increasing impervious surfaces in urban centres are also increasing in regional Victoria, with its population expected to increase to over 2 million people by 2051.

The cumulative impact of these projections is that committed and urgent attention remains vital to enable Victoria's urban centres accommodate development growth well, while preserving environmental and public health standards.

Stormwater management is complex and diffuse, with the actions of many parties impacting how rainfall flows from impervious surfaces are dealt with, and the scale of the problem generated from pollutants entering drainage systems which spill out water and scour waterways, bays and oceans with the pollutants and debris collected from many sources along the way.

This submission focusses on the role of councils managing urban stormwater as a planning authority, and as a manager of public land supporting activities and towns across the state achieve community connection (parks and gardens, public precincts, footpaths, streets and roads) from infrastructure provided in the public realm. It does not comment on the technical aspects of the guidance, given the reliance of councils on EPA to undertake the detailed investigate and scientific research that will

¹ "Victoria in Future 2016 Population and household projections to 2051", DELWP

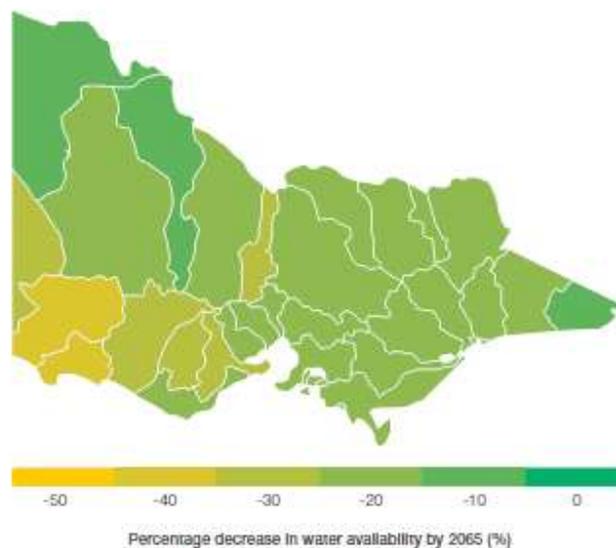
² "Improving Stormwater Management Advisory Committee Final Report", p13

assist regulators and developers take the necessary steps to prevent harm to the environment which are practicable as well as sustainable.

Councils also many manage tens of thousands of kilometres of drainage infrastructure under cities and towns which is the conduit for stormwater flowing away from source, often ending up in waterways, bays and oceans.

The recently released Infrastructure Victoria Draft 30-Year Strategy illustrates the urgency for all parts of the water-cycle system to be managed and utilised effectively now. Figure 2 illustrates the scale of the task across the state, with some regions expected to have declines in water availability of more than 50%. Current projections indicate a 20% decrease in water availability by 2065. Combined with a growing population, water shortages are expected in a range of Victorian settings, with mid-range scenarios seeing shortages in the next 10-20 years.

Figure 2: Water availability scenarios



Source: Hope, P. et al, A Synthesis of Findings from the Victorian Climate Initiative (VicCI), Australian, Bureau of Meteorology, 2017, pp. 37-45.

Source: *Infrastructure Victoria Draft 30-Year Strategy*, p52

Living Melbourne and the Victorian Planning Authority’s draft precinct structure plan guidelines also require efficient use of water resources to green and cool Melbourne and Victoria’s other cities and towns. Best practice tools, resources and training will be required for planners, policy makers and practitioners to ensure that widespread and effective WSUD practice is achieved.

A one-size-fits-all approach will not be relevant in all settings. The comments in the following sections focus on recommendations for amendments to be made to the guidance document, the intersection with planning schemes and municipal-scale urban stormwater planning.

3.1 Proposed amendments to the guidance document

Document refinements:

The 'how to use this guide' section would benefit from being clearer about the intended audience and providing clearer markers for how it can be used to inform design and engineering plans. Small to medium-scale developers may find this guidance daunting as currently presented. Provision of tools that enable them to understand what they need to do to meet the standards is vital.

The scenarios would benefit from wording being included which direct developers to relevant water authority and council requirements, as these differ between jurisdictions. Stronger guidance on the need for developers to communicate with local authorities early in the process would be very beneficial to minimise issues that may arise later in the application approval process.

Scenarios should also be developed for other types of developments which will be commonly built over the immediate period, including townhouses, apartments, non-residential and commercial developments.

References to commercial modelling tools:

We question the appropriateness for EPA's guidance to recommend a proprietary tool (eg, Paragraph 3, p7 refers) which has not been through a rigorous industry review or been developed through an industry process. While it may be useful for EPA to provide links to providers who can assist developers consider how they might meet these guidelines by other means, we do not consider that this should be included in EPA's official guidance document.

Instead, we strongly recommend that EPA removes these references in the guidance document itself, and replaces these with an outline of the ingredients developers should be looking for when considering the tools they can use to demonstrate compliance with the new Urban Stormwater Management Guidance. In raising this issue, please note that the MAV is not commenting on the quality of the particular provider; our point is about the endorsement process and apparent promotion of a particular provider in official guidance.

3.2 Status/interaction with planning schemes

We recommend that this document be considered for incorporation into all planning schemes to significantly improve the implementation of measures which can reduce and re-use stormwater. In particular it could be used as the updated reference to Standard A6 and B9 of Clauses 54 and 55 respectively. This change would enable councils to put measures in place in their planning schedules under permeability to require developments to reduce and re-use stormwater.

We note again for the record, in the event that planning schemes are amended, that the definition of stormwater should be revised so that it is the same as that used in the SEPP Waters and the new Environment Reference Standards that will come into effect on 1 July 2021. We acknowledge that while this is outside the scope of this guidance development, it would make sense for definitions to be aligned across regulatory instruments.

Currently planning schemes have a different definition to that used in the SEPP Waters and proposed Environmental Reference standards. We recommend that the definition of stormwater in the proposed Environmental Reference Standards is used as the key reference point. The greater levels of detail

contained in the current planning scheme definition would be better outlined in a Practice Note detailing the specific issues development applications need to have regard for in relation to their management of stormwater.

Developers having regard for this new guidance will be important in having all new developments implement measures as soon as possible. Built structures can last for many years, so the sooner standards are introduced, the better this will be for bringing forward the benefits better management of urban stormwater provides.

State Government supports for small-scale development assessments

Harnessing effective stormwater management treatments by the many small-scale developments will result in meaningful cumulative impact for the water-cycle system as a whole. To facilitate and speed up the opportunities these present, we support DELWP's commitment to support the upgrade and review of the ongoing maintenance of the STORM tool to assist small-scale landowners understand how they can meet stormwater requirements of the planning system. Smaller regional and rural councils would also appreciate the support such a tool this would provide to assist them better consider local permit applications.

Ongoing funding being provided by DELWP would assist expedite this task, and remove the lack of clarity that currently exists about the appropriate provision of this tool. MAV will continue to liaise with DELWP about possible options.

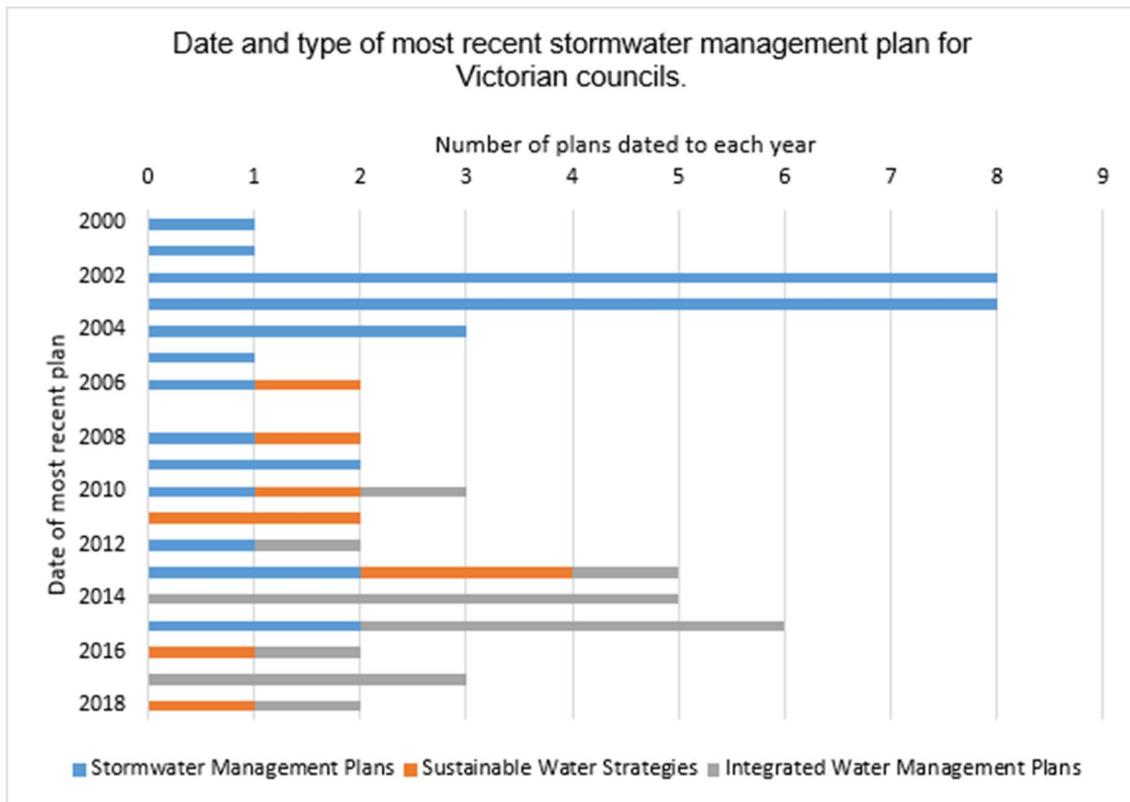
3.3 Municipal-scale urban stormwater management planning

We support the direction the EPA is taking in developing guidance which focusses on technical requirements which land-use developments need to achieve, rather than mixing these with other implementation issues and roles and responsibilities of different agencies. On the assumption that the current BPEM guidelines will eventually be replaced by a hybrid model of EPA guidance and relevant statutory instruments under the new Environment Protection Amendment Act 2018, we take this opportunity to alert the EPA and DELWP that further consideration will be required in 2021 for a municipal stormwater management planning audit and review program.

Currently municipal-scale stormwater planning varies across the state. According to a desk-top review of council websites undertaken by the MAV in 2019, 28 of the 79 Victorian councils have stormwater plans that have not been updated in over ten years. Many more would benefit from being reviewed with an integrated water management lens.

Figure 1 illustrates the diversity of practice across the sector, with a number of councils (mainly in metropolitan Melbourne) having updated and comprehensive integrated water management plans. Many still have stormwater management plans which will have been based on the template plans introduced following the development of the 1999 Urban stormwater best practice environmental management guidelines (BPEM).

Figure 1 - Council stormwater management plan status



Source: MAV desktop review of stormwater and IWM plans available on council websites, June 2019

A funded program would support councils review and develop template municipal stormwater management plans, and provide the opportunity to bring catchment and regional scale approaches to municipal planning. It would also enable consideration for more efficient allocation of management effort and development of the appropriate regulatory instruments. We recommended that \$10 million be provided for a two-year funding program from 1 July 2021.

Reviewing stormwater management planning guidance for councils would also enable better alignment to other key targets relating to water quality protection and public health which are contained in other state policy documents, such as Living Melbourne, the Westernport and Port Phillip Bay Environmental Management Plan and the Victorian Marine and Coastal Policy.

4. Conclusion

MAV welcomes the publication of this draft guidance and having the opportunity to provide comment. Due to capacity limitations imposed by responding to the ongoing COVID-19 emergency, we have not had the opportunity to consult in detail with councils. As a result, we will be seeking to continuing to work with the EPA to improve the management of urban stormwater ongoing, to enable local insights inform the continued development of state-level policies.

We will also welcome collaboration with the EPA about urban stormwater planning at the municipal scale and the necessary subordinate legislation or other instruments that may be required to support councils as they adjust to the new environment protection regime that will commence from 1 July 2021. This will be particularly relevant as the SEPP Waters is phased out and new regulatory instruments explored to enable councils manage their land and infrastructure responsibilities in the period to 2023.

Recommendations from the Melbourne Urban Stormwater Institutional Arrangements Review (60 hectare) (MUSIA) Review considering the delineation of the responsibilities between Melbourne Water and the 38 councils in its service region will also be important to incorporate into this future work program.

Capacity building projects to disseminate technical knowledge and good practices for regional and rural councils continue to be important. We recommend continuation of funding being provided by DELWP for initiatives such as the Clearwater program being available state-wide contribute to greater consistency in approach by councils across the state. They also build peer learning and insights of the benefits water-sensitive urban design and innovations to better manage urban stormwater.