



10 December 2021

Department of Environment, Land, Water and Planning
8 Nicholson Street
Melbourne VIC 3000

Dear Sir/Madam,

RE: Central and Gippsland Sustainable Water Strategy

Thank you for the opportunity to provide feedback on the Draft Central and Gippsland Sustainable Water Strategy (referred to in this paper as “the SWS”), released on 8th October 2021. The release of the 2021 draft is an important milestone and represents a critical piece of work in setting the path for long-term planning for sustainable and secure water supply, and as such, Stormwater Victoria commends DELWP on the progress and leadership demonstrated from building on the 2006 Sustainable Water Strategy,.

As the key body representing organisations and individuals involved in stormwater management, Stormwater Victoria seeks to be an active leader in the water industry, giving an independent voice on stormwater issues which represent the views, interest and concerns of its members. In taking up this role, Stormwater Victoria held a member engagement session on the 30th of November, 2021 to determine the priorities and challenges around the SWS and stormwater management more broadly. Through this invitation we were able to solicit feedback on the objectives and strategies set out by the SWS, which has informed this submission and the attached paper.

Stormwater Victoria strongly advocates for the inclusion and recognition of stormwater as an important component within the portfolio of sources to be utilised to achieve water security, adapting to a changing climate and meeting the contemporary needs of the environment. In this respect, stormwater harvesting provides the opportunity to achieve multiple outcomes by reducing excess outflow to receiving waterways while concurrently reducing demand on the potable water system, or indeed complementing this portfolio.

Stormwater Victoria is pleased to provide further feedback on the draft SWS, to better strengthen and improve this important policy to achieve the desires of the industry, community and broader *Water For Victoria* policy outcomes. We look forward to continuing to work with DELWP and the industry on the development and implementation of effective, sustainable and transformational stormwater management and welcome any further discussion or to provide additional clarity on these items as needed.

Kind regards,

A handwritten signature in black ink, appearing to read "Sarah Watkins", is positioned above the printed name.

Sarah Watkins.

President, Stormwater Victoria

Stormwater Victoria is the pre-eminent body in Victoria representing organisations and individuals involved in stormwater flow, environmental quality and use, adopting an integrated approach to stormwater management by encouraging interaction between the many disciplines and parties engaged in our industry.

Stormwater Victoria provides leadership, professional support, and technical guidance on niche issues specific to stormwater management, and advocate to ensure sustainable stormwater management is fully integrated into broader discussions around water management and urban development at a state and national level through our links to Stormwater Australia and the network of state-based stormwater associations.

Stormwater Victoria represents 279 members, who are diverse, knowledgeable and committed professionals working across government, industry and academia from a range of technical and professional backgrounds, including engineering, landscape architecture, urban planning, education, environmental management, policy, sustainability and community engagement. Collectively, they bring a desire to support positive change for improved stormwater management and supports Stormwater Victoria's shared vision:

Stormwater is an invaluable resource, and it is our vision that stormwater is integrated into holistic water management creating sustainable communities, connecting built and natural environments.

As an active leader in the water and urban development industries, Stormwater Victoria plays a central role in bringing together government, industry, and practitioners to affect sustainable and holistic management of stormwater in order to progress four key goals:

- **Stormwater as a resource** – stormwater is managed holistically to achieve greater water security, through harvesting and reuse
- **Ecosystem protection** – the impact of stormwater on receiving waterways and ecosystems is managed to maintain healthy waterways, and protect natural assets
- **Flood management** – stormwater infrastructure protects communities and assets from the impacts of flooding
- **Liveability** – stormwater supports cool, green and connected communities and spaces

Finally, as the peak body for the stormwater industry, this submission represents the interests of our members for improved management of stormwater. In doing so, it advocates for robust regulatory frameworks that promote industry best practice, reflect well-established science, and are supported by the necessary compliance and implementation mechanisms to enable the required paradigm shift towards achieving water security, environmental protection and liveability for Victoria of the future.

1. Purpose and background

This paper details Stormwater Victoria's submission on the Draft Central and Gippsland Sustainable Water Strategy (referred to in this paper as "the SWS"), released on 8th October 2021.

2. Stormwater as a valuable resource

Stormwater Victoria welcomes the objective of incorporating all sources of water into the Sustainable Water Strategy (SWS) in particular highlighting the value of stormwater within the integrated water cycle management cycle and promoting it as part of the strategy. Stormwater Victoria believes that stormwater is a vital, yet currently under-recognised resource that should play a key role in this strategy.

In Chapter 2: Water Sources it is noted that in 2018-19 approximately 400GL of stormwater was generated across Greater Melbourne and only 2GL re-used; this is compared to roughly 450GL of recycled water in the same period. On this basis, stormwater should be given greater emphasis in the SWS and its contribution to water security should be seen in line with manufactured water (desal & recycled water).

Recommendation: The definition of manufactured water be expanded to consistently include both recycled water and stormwater, with clear directions to ensure stormwater is increasingly seen as a valued resource contributing to our long term water security.

At present, the majority of large alternative water projects are recycled water. Without proactive policy and commitment in the SWS targeted at addressing the current barriers to stormwater uptake the benefits of stormwater as a resource will continue to go unrealised. Stormwater Victoria notes that the majority of references to stormwater opportunities are qualified by the challenges met with cost benefit analysis which is counterproductive to realising a successful change where all sources of water are contributing to water security. Instead, the SWS should look to stormwater as an opportunity and identify enabling actions.

In doing so, the SWS should also revisit the priority given to rainwater tanks and its supporting actions. It is unclear on what basis rainwater tanks are given a higher prominence than other stormwater management measures, such as regional scale stormwater harvesting. This approach acts to downplay the role of stormwater management more generally, in favour of rainwater tanks that only go part of the way to achieving the objectives, have tenuous economic justification compared to larger scale interventions and inherent maintenance risks.

Recommendation: While Stormwater Victoria supports the inclusion of rainwater tank commitments, it's important that this is seen as a subset of stormwater management and complemented by a range of commitments that support the broader range of stormwater interventions and reuse.

3. Managing impacts of stormwater on receiving waterways

As noted in Section 11.3, Stormwater runoff is the greatest threat to the ecological health of Melbourne's waterways. It has been found to override all other causes of waterway degradation. Stormwater Victoria

believes that it's critical that stormwater is properly managed to protect the health of our waterways. However, Chapter 3, which details the needs of the environment with respect to water, would benefit from an equal focus on the deleterious effects of excess water resulting from urbanisation (particularly relevant for the Central Region), in addition to the important considerations for extraction.

At present, the narrative surrounding stormwater in the SWS is inconsistent throughout the document. In order to build commitment and momentum to stormwater as a resource, Stormwater Victoria encourages a consistent stormwater vision within the SWS.

Recommendation: Content in the SWS is reviewed to build a consistent and compelling stormwater narrative where:

- stormwater flows as a result of urbanisation is seen as the single biggest threat to waterway health;
- commitment to enabling flow targets set out in EPA Urban Stormwater Management Guidance
- the broader benefits that can be delivered by stormwater harvesting, compared to desalination options
- the necessity for new approaches and engineering solutions to achieve the standard; and
- confirmation that the 400GL + of stormwater, currently generated across Melbourne will be given equal consideration and equal opportunity with desalination and recycled water as an essential element of meeting our future short falls.

4. Feasibility to stormwater to potable

Stormwater Victoria recognises that stormwater to potable requires progress and development of not just policy and community literacy, but also technology and innovation. Whilst the SWS is not the vehicle for advocating for technology or innovation changes, the founding policy does guide the industry knowledge that needs to be built over time. It is hoped that this is carried through other key planning documents, such as Water For Life.

Table 6.1 in SWS identifies stormwater as a potential source for potable supply. The SWS documents the need for changing how decisions for augmentations are undertaken. Stormwater Victoria believes that it is essential that foundations are set in place, in the event that policy shift enables new sources for potable supply. If stormwater isn't used for direct drinking there is opportunity for suitable potable substitution such as swimming pool top up, supply to hot water etc. Therefore, further investigation into the future viability of stormwater to potable should be included. This should incorporate technology, treatment requirements, costs and benefits policy strategies that align with the risk framework. Stormwater Victoria recommends that the SWS include specific action to assist with the legislative changes to support stormwater to potable use in the future.

Recommendation: Stormwater Victoria is very supportive of content within Table 6.1, however notes that there is some inconsistency with how stormwater is represented throughout the document, which does not reflect this table. A review and rectification of this is necessary. Similarly, this needs to form part of the conversation with the community throughout any commitments to engagement (such as Section 7.4).

5. Gaps and issues

Stormwater Victoria believes that there are a number of barriers to achieving these goals that need to be more adequately identified and addressed within the SWS, either through improved directions or proposals. Principally, these are:

1. **Governance and cost recovery - how agencies and industry work together and the funding mechanisms that enable better stormwater management**

In order to truly recognise the value and opportunity of stormwater as a resource within the integrated water management cycle it is essential that a consistent funding and cost recovery stream is established. There is no shortage of stormwater, however significant investments are required to deliver large-scale stormwater infrastructure to capture and supply stormwater as an option among the other available water sources to meet the future water demands. At the moment, no charges exist for the additional volume of stormwater runoff generated due to urbanisation and development. Drainage management authorities such as Melbourne Water and Local governments are continuously required to upgrade the drainage and stormwater treatment infrastructures to adequately manage the stormwater load and minimise its impact on environment and community without an opportunity to recover the cost associated with these upgrades.

There is a huge benefit associated with greater stormwater reuse, a resource that is otherwise discharged into the waterways and bays as a waste. Stormwater reuse will not only reduce the future water demand but also when reused will reduce the burden on drainage authorities to upgrade infrastructures required to cope with additional stormwater flows. However, on many occasions stormwater reuse is prohibited due to:

- lack of funding and resources
- traditional stormwater management approach with limited opportunity for true collaboration and co-funding among multiple organisations
- limiting the scope of project based on the boundaries and beneficiaries, need to consider beyond development opportunities at a catchment and regional scale
- lack of clarity on delineation among the authorities i.e. Council, Melbourne Water, Water Retailers and Catchment Management Authorities

Stormwater Victoria recognises that there has been progress in these areas however there is significant opportunity to resolve these institutional barriers in the next 10 years and achieve a long term step change for stormwater.

Recommendation: Section 7.8 Improving the regulation of stormwater use include reference to the MUSIA process and a new direction for the Victorian Government to mandate the roles and responsibilities to ensure local governments have a clear mandate for funding and maintenance.

Recommendation: *Section 7.8 Improving the regulation of stormwater* including a new direction for the Victorian Government to update the Statement of Obligation for Water Retailers with IWM targets to allow investment into stormwater projects and realise multiple benefits for the environment and water security.

Recommendation: *Section 7.12 Integrated water management: water efficient communities and infrastructure* include a new direction for the Victorian Government to embed IWM targets into the appropriate regulatory mechanism to drive funding and commitment.

Recommendation: *Section 7.12 Integrated water management: water efficient communities and infrastructure* include a new direction for the Victorian Government to review pricing structures for cost recovery of stormwater infrastructure (e.g. impervious charge) and funding mechanisms to enable cost-sharing across agencies.

2. Knowledge and tools - industry have access to the information and tools needed for change

Knowledge and tools for industry is foundational to support a shift to meeting flow targets and managing stormwater as a valued resource for water security. This helps to guide important decisions that enable industry practitioners and organisations to evaluate the merits of planning and design options, influence policy outcomes and achieve new benchmarks that evolve to a business as usual approach.

In order to meet stormwater flow targets, an understanding of storages and demands across the region is foundational. In several instances, the SWS considers stormwater demands isolated to irrigation of green spaces, however this is vastly inadequate in meeting stormwater targets now set out by the EPA. A broader range of non-potable uses, such as agriculture, industry, green hydrogen stations, aquifer storage and recovery and environmental water etc. is required, in addition to a city-wide master plan for stormwater that helps to resolve the competition with recycled water and identify harvesting opportunities at both precinct and regional levels.

Recommendation: *Section 7.6 Investigating a large-scale recycled water and stormwater network* include a new direction for the Victorian Government to undertake a catchment scale harvesting and reuse plans for both greenfield and brownfield areas, considering new demand opportunities and addressing the competition between recycled water and stormwater.

3. Compliance and enforcement - Ensuring that the mechanisms we have in place are followed through to implementation, operation and maintenance

Compliance and enforcement continues to be a challenge for the stormwater industry. Stormwater Victoria frequently receives feedback from its members on the challenges of implementing change in the right direction without adequate enforcement and compliance. There appears to be a lack of understanding on roles and responsibilities associated with organisations for enforcing compliance.

Rainwater tanks are an excellent example, whereby tanks are often approved at the planning stages by the drainage authority within private properties as a key mechanism for stormwater volume control and as a water resource for fit for purpose use in residential development i.e. for laundry and toilets. However, it is of great concern to Stormwater Victoria that on many occasions these rainwater tanks are not being

delivered on ground or are not maintained and decommissioned without the knowledge of the drainage management authorities. This is of significant risk to drainage authorities and developments as it can have a large impact on flooding controls and waterway health within the developments. In order to support the greater uptake of stormwater as a resource and minimise the risks of poor installation, operation and maintenance, it is essential that there is greater enforcement for compliance.

Recommendation: Section 5.3 Water efficiency in our cities and towns include a new direction for the Victorian Government to investigate and resolve the operation and maintenance associated with stormwater assets on private land.

4. Integration with the planning framework - Enabling stormwater outcomes at different spatial scales through the Victoria Planning Framework

At present, the only mandatory planning requirements associated with stormwater management are documented within the Victorian Planning Provisions and Best Practice Environmental Management Guidance document. Stormwater Victoria believes that these requirements are insufficient to manage the impact of stormwater flow on waterways. The Urban Stormwater Management Guidance prepared by EPA is an excellent document that provides guidance on stormwater volume control. However, as a guidance document, it lacks the necessary compliance mechanism within the Victorian Planning Provisions (VPP). Stormwater Victoria's members strongly believe that compliance via the Victoria Planning Provisions is essential for industry adoption.

In this regard, it is important that the inaccuracy is corrected on page 143 stating the '*Environment Protection Authority is updating the Best Practice Environmental Management Guidelines to reflect our current level of understanding of the science, which will be reflected in their new regulatory framework as a 'state of knowledge'. This will complete existing requirements to manage stormwater in the Victorian Planning Provisions*', when in fact the long awaited BPEM update resulted in the release of the aforementioned Urban Stormwater Management Guidance, released in July 2021. While this guidance is triggered as a 'state of knowledge' this guidance is not triggered by the Victorian Planning Provisions and therefore lacks compliance equivalent to BPEM as indicated in the SWS.

Recommendation: Section 7.12 Integrated water management: water efficient communities and infrastructure include a new direction for the Victorian Government to integrate the flow targets contained in the EPA Urban Stormwater Management Guidance into the Victoria Planning Provisions.

5. Community engagement and social licence

Engagement with the SV membership has prompted the inclusion of a sixth barrier, community engagement and social licence. Market led adoption and political will is a function of social licence and community awareness. As a result, our members strongly encourage clear commitments within the SWS to focus on community engagement that builds community literacy on the importance of stormwater management in protecting waterways from severe degradation and the vast opportunities for stormwater to be used increasingly as a resource, beyond sports fields irrigation and more readily towards broader non-potable and potable solutions.

Stormwater Victoria will watch with interest at the outcome of key projects, such as Sunbury IWM which will initiate this important conversation with community regarding a broad range of stormwater enduses. Whilst the inclusion of this as a case study is commendable, further commitment to action to undertake broader action on engaging with community and understanding their preferences for stormwater uses, including for drinking water. Stormwater Victoria recognises that such shifts may require a long term conversation with the community, and believe that the SWS, as a long-term strategy should highlight this explicitly.

Recommendation: Stormwater Victoria recommends that an additional direction is added to Section 7.4 Increasing the use of stormwater and recycled water whereby: The Victorian Government will lead, in partnership with councils and water retailers a community engagement and literacy campaign on the benefits of increased use of recycled water and stormwater. This needs to specifically include an action to engage on a full range of end uses for these sources, including for drinking water.

6. Summary

Based on the member's engagement session held on the 30th of November, 2021, Stormwater Victoria has identified the key gaps and issues in the SWS and tabled a number of actions recommended to address these.

Stormwater Victoria supports optimising the use of stormwater as a resource for both potable and non-potable use. This is a vital resource that should play a key role in this strategy, promoting supply security as well as providing benefits to the health of the receiving waterway.

To achieve this, Stormwater Victoria recommends expanding sections of the SWS as detailed above to clearly define the importance of stormwater reuse in line with recycled water and desalination. Stormwater Victoria would like to see the inclusion of further investigation into stormwater as a potable supply source, as well as potential for a range of interventions for stormwater reuse in addition to implementation of rainwater tanks. It is also recommended that a focus be placed on community engagement and improved regulation of stormwater, as well as a review of pricing structures for cost recovery.