

30 July 2010

Email: trevor.evans.mp@aph.gov.au

Attention: Hon. Trevor Evans MP

Dear Assistant Minister

RE: STORMWATER QUALITY MANAGEMENT REQUIREMENTS FOR NEW DEVELOPMENT WITHIN AUSTRALIA

Thank you for the opportunity to meet with you on Monday 27 July 2020.

As promised, this correspondence provides an overview of stormwater quality management legislative requirements within Australia – with a particular focus on existing policies related to stormwater quality management across each state/ territory.

Context

As previously described, an estimated 80% of plastic pollution in our ocean comes from land-based sources flowing through drains to our waterways and oceans via stormwater runoff. According to research, approximately 1,580 kilograms of plastic enters Australia's oceans each hour¹. Urban stormwater runoff often also contains harmful levels of other less visible (but extremely damaging) pollutants, such as suspended solids, heavy metals, nutrients and bacteria. Stormwater is recognised as the key source of pollution in our urban waterways² and the vast majority of marine debris entering Australian waters is land-based and generated locally^{3,4}.

Traditional urban development and associated stormwater drainage practices of conveying stormwater runoff to waterways as efficiently as possible (providing minimal opportunities for treatment and reuse) have been recognised as being unsustainable and inappropriate due to changed catchment hydrology (e.g.

¹ Jennifer Ninni, Article in EcoVoice, 2018, *1,580kg enters Australia's ocean every hour*, <https://ecowarriorprincess.net/2018/06/world-oceans-day-1580kg-plastic-waste-dumped-australias-oceans-every-hour/>

² Melbourne Water, 2016, *Management of the ecological impacts of urban land and activities on waterways – Issues Paper: understanding the science*, https://www.clearwatervic.com.au/user-data/resource-files/2016_08-waterways-issues-paper-pub.pdf

³ Dr Britta Denise Hardesty, CSIRO, *Committee Hansard*, 26 February 2016, p. 1, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:%22committees/commsen/439759d8-696a-4708-b877-eaf069b0776f/0001%22;src1=sm1>

⁴ Britta Denise Hardesty and Chris Wilcox, CSIRO, *Understanding the types, sources and at-sea distribution of marine debris in Australian waters*, <https://www.environment.gov.au/system/files/pages/8ff786ed-42cf-4a50-866e-13a4d231422b/files/marine-debris-sources.pdf>

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increased frequency and volume of stormwater flows) and increased stormwater pollutant loads to waterways and associated ecological impacts.

Water Sensitive Urban Design (WSUD) is an internationally recognised concept that offers an alternative to traditional development practices, providing a holistic approach to the design of urban development that aims to minimise the negative impacts on the natural water cycle and protect the health of waterways⁵. A key element of WSUD is best practice stormwater 'quality' management, and this is commonly applied for new development within Australia.

The application of best practice stormwater quality management is sometimes mandated by state-based legislation, or at least recommended or required (typically by local government policy and/ or development conditions).

Overview of legislative requirements

State government legislation in Queensland, Victoria, Tasmania and Canberra currently mandates best practice stormwater quality management for new development (above a minimum threshold). Management targets for these states and territory are similar and specify removal targets for litter (or 'gross pollutants'), total suspended solids and nutrients. As a result, stormwater treatment assets (to reduce litter and other pollutant loads discharged downstream from new development) are a common feature within new development.

Across the remainder of Australia, there is no State Government legislation, and stormwater quality management requirements (and associated solutions to mitigate pollution entering downstream waterways) is inconsistent and often absent.

The below text provides a summary/ overview of legislative requirements for each state and territory within Australia.

- In **Queensland**, the *State Planning Policy* (Queensland Government, 2017⁶) identifies 'water quality' as a state interest and outlines 'stormwater management design objectives'
 - These objectives are stormwater pollution reduction targets for total suspended solids (TSS), total phosphorus (TP), total nitrogen (TN) and 'gross pollutants (GPs)' – for developments above a given threshold (see Table B).
 - This policy has mandated best practice stormwater quality management since at least 2013. Prior to this, many local governments across Queensland would require the same (or very similar) targets within their own local government planning schemes.
- In **Victoria**, the State Environment Protection Policies (SEPPs)⁷ require stormwater quality treatment to be undertaken, and compliance with associated targets for new development
 - These objectives are similar to Queensland's stormwater pollution reduction targets for TSS, TP, TN and GPs
 - The requirements (under Clause 56.07-4, Stormwater Management) to treat and manage stormwater, which previously only applied to residential subdivision, have now been extended (as of 26 October 2018, under Amendment VC154⁸) to almost all new development.

⁵ South East Queensland Healthy Waterways Partnership (2006), *Water Sensitive Urban Design Technical Design Guidelines for South East Queensland*.

⁶ Queensland Government (2017), *State Planning Policy*, <https://dsdmipprd.blob.core.windows.net/general/spp-july-2017.pdf>

⁷ Melbourne Water, *Stormwater quality objectives*, <https://www.melbournewater.com.au/planning-and-building/stormwater-management/options-treating-stormwater/stormwater-quality>

⁸ Victorian Planning Revisions, <https://www.planning.vic.gov.au/schemes-and-amendments/browse-planning-scheme/amendments?f.Scheme%7CplanningSchemeName=VPPS>

- In **Tasmania**, the *State Stormwater Strategy*⁹ specifies stormwater management objectives (pollutant reduction targets) similar to Victoria that should be achieved by new development. It is our understanding that compliance with these targets, whilst not specifically mandatory (as they are outlined in a ‘strategy’ document and not a policy or code), are likely essentially a legislative requirement across Tasmania.
 - These objectives are similar to the aforementioned states’ stormwater pollution reduction targets for TSS, TP, TN and GPs.
- In **Canberra**, the *Waterways: Water Sensitive Urban Design General Code*¹⁰ outlines stormwater management design objectives’ that new development must achieve.
 - These objectives are similar to the aforementioned states’ stormwater pollution reduction targets for TSS, TP, TN and GPs.
- In the **Northern Territory**, there is currently no mandatory requirement for best practice stormwater quality for new development
 - draft *Northern Territory Subdivision Development Guidelines* have been prepared and proposed targets (albeit as part of a guideline only), and are again similar to the targets in the aforementioned states and territory.
- In **New South Wales**, there are no mandatory stormwater quality requirements for new development.
 - Many local governments in NSW specify requirements for new development (similar to targets for the aforementioned states and territories) as part of planning scheme policies and/ or development conditions
- In **Western Australia**, there are no mandatory stormwater quality requirements for new development.
 - The *Stormwater Management Manual for Western Australia*¹¹ provides guidance in relation to best practice stormwater management, but does not specify pollution reduction targets
- In **South Australia**, there are no mandatory stormwater quality requirements for new development.
 - As outlined by the EPA of South Australia¹², the *Environment Protection Act 1993* places a general obligation to take all reasonable and practicable measures to minimise environmental harm caused by pollution and promotes ecologically sustainable development – but no state policy/ code-based mandatory stormwater quality requirements exist for new development.

Recommendation

As outlined in the Zero Litter to Ocean Policy Paper¹³, Stormwater NSW and Ocean Protect propose that the Federal Government mandate best practice stormwater quality management targets for new development across Australia, adopting the same (or similar) targets as currently applied in Queensland, Tasmania, Victoria and Canberra. This would greatly assist in protecting the health of Australia’s waterways and ocean, providing consistency across the nation for best practice stormwater quality management.

⁹EPA Tasmania, *State Stormwater Strategy*, <https://epa.tas.gov.au/epa/water/stormwater/state-stormwater-strategy>

¹⁰ ACT Planning and Land Authority (2009) *Waterways: Water Sensitive Urban Design General Code* <http://www.legislation.act.gov.au/ni/2008-27/copy/64663/pdf/2008-27.pdf>

¹¹ Department of Water, Government of Western Australia (2009), *Stormwater Management Manual for Western Australia* <https://www.water.wa.gov.au/urban-water/urban-development/stormwater/stormwater-management-manual>

¹²https://www.epa.sa.gov.au/environmental_info/water_quality/programs/stormwater/pollution_prevention_for_building_and_construction_activities

¹³ Stormwater NSW and Ocean Protect, Zero Litter to Ocean Policy Paper, <https://zerolittertooocean.com.au/>

I trust this is suitable for your current purposes.

Please contact me if you have any questions, or would like to discuss anything further.

Yours faithfully

A handwritten signature in black ink, appearing to read 'JB', with a long horizontal flourish extending to the right.

Jeremy Brown
Founder and Managing Director