

16th December 2020

Ms Sigourney Irvine
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To Sigourney,

[Reference: Feedback on Draft urban stormwater management guidance - EPA publication 1739](#)

Afflux consulting is pleased to provide our feedback on the consultation document “Draft urban stormwater management guidance - EPA publication 1739 (October 2020)).

Afflux is a consultancy firm that specialises in the development of stormwater management plans, design of stormwater assets and advising developers and authorities on flood and water quality related impacts of urban development. With close linkages to the broader stormwater industry, we are at the ‘coal face’ and have a wealth of practical experience in how policy outcomes are translated in practice. Our internal projects cover both private (developer, schools, businesses, and home owners) and public (local and state government, and authorities like Melbourne Water, Yarra Valley Water, etc) based projects, so we speak for a variety of clients, asset owners and motivations.

At the outset we understand the Environment Protection Act (EP Act) has been substantially modernised and uses the concept of a General Environmental Duty (GED) at its core. Compliance with the GED is supported by other constructs, including ‘state of knowledge’ and (hopefully) complementary procedures, policies and strategies (e.g. Healthy Waterways Strategy (HWS)). The GED is understood to be enforceable by both agencies and the general public which will place further scrutiny on decision makers and approvals processes¹.

As consultants advising industry, it is our role to understand and navigate requirements of the various approval processes. We are eager to see new guidance like this that incorporates updated flow and volume standard targets in addition to the previous focus on water quality. Flow/volume standard targets in projects are essential to protect and rehabilitate our waterways, however we do have concerns on the ability to achieve the new targets in all settings. Particularly considering the practicality of working in a real-world situation where there are conflicting standards and pressures, including:

- Legacy situations where land use and servicing decisions have previously been made and pose problematic obstacles.
- Complexities in gaining the support and co-operation of public land managers and water authorities to implement solutions away from private land.
- Land take considerations that require managing competing objectives for lot yield, private and public open space, service authority assets and meeting geotechnical objectives.
- Competing functional objectives of surrounding infrastructure and their perceived impacts on operational effectiveness, for instance incorporating permeability in the road pavement.

The draft guidance includes a set of examples where the proposed standards have been met, however in our experience these the targets are not always achievable when factoring in the issues above. The

¹ Action brought by community based Moorabool Environment Group groups recently caused the EPA to rescind a decision to approve a landfill operation associated with West Gate tunnel soil disposal

examples provided do not have sufficient detail to allow them to be properly critiqued. The scientific review, which adds to the State of Knowledge is deficient in that it also does not have a strong emphasis on the hydraulic aspects of stormwater design, instead focussing on water quality and stream flow indicators. This is a common approach in Victoria which is not emphasised in other jurisdictions. As consultants we provide advice on balancing competing outcomes and believe this is an important area that will require rectification into the future.

Recommendation: Further evidence on the development of the ranges and scenarios would be welcomed.

We feel much of the industry will look at a range for a flow standard and aim at the lower end. A clear minimum expected target that reflects the rainfall and needs of the catchment, would be easier for us to implement than a range. Ideally these targets should reflect and respond to existing strategies, such as the HWS. Any flow standards expected in those strategies should be referenced in the guideline to avoid confusion.

Recommendation: Flow standards should reflect existing relevant strategies within the catchment to ensure clarity in implementation.

Recommendation: Flow standards should be set as a clear minimum target (not a range), reflective of the catchment, and provided in the form of a map or table.

From our experience, the active and collaborative involvement of councils and water authorities will be critical if more ambitious levels of flow reduction are to be achieved through initiatives such as local stormwater harvesting. While there is considerable policy interest in Integrated Water Management across these regulating agencies, it does not easily translate into tangible action. Often the nature of Land Development is propelled by the market where time becomes the primary driver to delivery. We find that agencies are not always able to respond quickly enough with 'plans' and budgets to support this growth. An expedited update to the Developer Services Schemes, Drainage Schemes or Development Plans across the state should be undertaken. These should reflect the guidelines and incorporate considered project outcomes for catchments to avoid a siloed response by pocket projects. Ownership and maintenance of the projects will need to be included in the redevelopment of the schemes to ensure the longevity of the initiatives beyond the capital expenditure.

Recommendation: Collaborative projects that meet the objectives of the guidelines will need to be established in catchments to ensure the successful implementation of the guideline doesn't result in isolated and unmaintainable outcomes.

The term the 'reasonably practicable' may generate some uncertainty in the industry and does not provide us with a strong stance in enforcing the new guideline. There is risk, that the term could be used to avoid any good urban stormwater initiatives (flow or water quality).

Recommendation: Remove the term 'reasonably practicable' from the guideline.

In order to implement the guidelines, a variety of assessment tools will be required by local governments and relevant authorities. MUSIC, the Storm Tool, and more recently InSite, have been used to assess the water quality and quantity outcomes of a project with varying degrees of success and accuracy. While Afflux often advises on more complex development typologies, we are aware of the general detriment caused by sub-standard or poorly conceived design based on using the wrong tool². At this stage the STORM tool provided by Melbourne Water is not able to support the same level of integration and will require significant investment or alternatives like InSite, sought.

Recommendation: A variety of integrated assessment tools will need to be developed or re-developed to provide an accurate reflection on the initiatives chosen for projects. Investment from leading Government agencies like the EPA will be required.

² Poor designs include incorrect sizing calculations, impractical siting of water treatment elements which can delay approvals or result in objectives not being achieved.

Finally, we'd like to thank you for the opportunity to be involved in the development and implementation of the guidelines with this feedback. We feel the changes and progression of the stormwater industry is contingent on thorough research, modelling and engagement to establish new guidelines, regulations, tools and governance. This will ensure the protection of the waterways and future health of the environment we live in.

Sincerely



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