

20 November 2017

City of Gold Coast
Email: cityplansubmissions@goldcoast.qld.gov.au

RE: Stormwater Queensland Submission on the City of Gold Coast's Draft Land Development Guidelines

Stormwater Queensland would like to provide the City of Gold Coast with a submission on the Draft Land Development Guidelines. Due to the limited consultation period our review has focussed on Section 4.5 (Water Sensitive Urban Design).

Our comments are as follows:

1. Section 4.5.4.5 Frequent flow objectives:

- a. Whilst we acknowledge the importance of appropriate mitigation of the hydrologic impacts of development (and associated frequent flow management targets), we anticipate that the cited standards/ objectives (e.g. 20% reduction in average annual flow volume) will be potentially unreasonable and impractical to achieve. Furthermore, the standards/ objectives will only be achievable by 'active' removal of flows (e.g. rainwater or stormwater harvesting), and no 'credit' (for mitigation of hydrologic impacts) would be provided by 'passive' initiatives (e.g. minimising impervious areas) to mitigate/ manage flow increases. The objective does not therefore incentivise low impact design measures which may actually do more to protect downstream receiving waterways. More appropriate standards/ objectives that would allow for both active and passive mitigation solutions may include 'no increase' to runoff frequency or volume (relative to the pre-development scenario).

2. Section 4.5.6.4 Sediment Basins:

- a. The bullet point that states, "*pH in the range (6.5–8.5). This will require high efficiency sediment basins that use a continuous flocculation system or a batch sediment basin which is flocculated and emptied regularly.*", implies that flocculant (used by HES and similar basins) should be used to regulate pH, which is incorrect. The primary objective of applying a flocculant (for HES or a batch sediment basin) is to assist in the removal of sediment.

3. Section 4.5.6.6 Release Limits:

- a. The requirement of "no release of coarse sediment" for "all releases of stormwater" is likely unreasonable and impractical. For example, high flows (in excess of the design flow rate of a given basin (e.g. HES basin) would be expected to discharge some coarse sediment in receiving waterways. The discharge of coarse sediment into receiving waterways in an undeveloped/ pristine catchment would also be expected.
- b. The cited discharge criteria "for sediment basins" may also be inappropriate for catchments/ waterways with a naturally elevated concentration of total suspended solids or high turbidity. We would recommend that some exemption be given to sites where appropriate 'baseline' water quality monitoring of stormwater events has been undertaken (as provided for the pH target for example).

4. Section 4.5.10.2:

- a. Council's position, that "*Proprietary devices for nutrient and/or metal removal are not accepted*" for "Industrial, commercial, retail (including retail at the bottom floors of high rise)" land uses where the

Council is to be the land owner is considered unreasonable. We believe that these devices may be suitable for this type of application in certain circumstances (e.g. where site constraints limit the application of deemed-to-comply solutions).

- b. For private ownership, only allowing proprietary devices “where site constraints prohibit adoption of deemed-to-comply solution” is likely unreasonable. These devices may be suitable (and/ or preferred by some owners) and the maintenance of these devices will be the responsibility of the property owner.
- c. We do, however recognise that an appropriately budgeted and cost effective monitoring and maintenance program would be required for any potential proprietary devices in both city and private ownership. We also recognise that deemed-to-comply vegetated assets deliver multiple benefits (not just water quality) and would be more likely to deliver on the city’s other greening aspirations.

5. Section 4.5.10.3 Performance of proprietary devices:

- a. This section currently states that, “The City requires all proposed proprietary devices to demonstrate performance based on testing at the manufacturer’s expense consistent with the City’s *Development Application Requirements and Performance Protocol for Proprietary Devices*.” This document does not appear to be available in the public realm (e.g. Council’s website). It is subsequently recommended that this document be made available on Council’s website if it is to be referred to.

6. Section 4.5.12 Bioretention Systems:

- a. Reference is given to the Water by Design (2006) *WSUD Technical Design Guidelines*. We would recommend that reference (instead) be provided to the (more recently published) Water by Design (2014) *Bioretention Technical Design Guidelines*.

7. 4.5.13.7 Management of high flows:

- a. The requirement for a high flow bypass for all wetlands is unnecessary. Provided the risk of erosion, vegetation damage and/ or resuspension is suitably low, a high flow bypass for a wetland would unlikely be necessary.

We thank you for the opportunity to provide feedback on these draft guidelines. As noted above, we would also welcome the opportunity to discuss the document in person

Should you have any questions or would like to discuss this issue, please contact myself or the chair of our Membership and Advocacy sub-committee, Paul Dubowski (paul.dubowski@bmtwbm.com.au or 3831 6744).

Kind regards



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