

## Stormwater Queensland Erosion and Sediment Control Position Statement

Stormwater Queensland (SQ) is committed to providing industry leadership on best practice stormwater management. This Position Statement sets out Stormwater Queensland's stance on erosion and sediment control including High Efficiency Sediment Basins (HES).

This Position Statement has been developed and endorsed by the management committee of Stormwater Queensland with contributions from our members. It will be used to represent Stormwater Queensland members and the broader industry, promote collaboration with state and local governments and other industry stakeholders towards achieving best practice Erosion and Sediment Control (ESC).

### 1.0 General

South East Queensland's waterways are being impacted by excessive volumes of sediment with the majority coming from man-made disturbances such as land clearing and construction sites. This excessive deposition of sediment impacts the natural environment through the loss of habitat, ecosystems etc, and increased concentrations of nutrients and metals in waterways which leads to poor water quality. It also increases the risk of flooding and need for maintenance of waterways and stormwater infrastructure.

SQ believes designers, contractors, auditors and regulators need to improve their understanding of the causes of erosion, appropriate mitigation measures, the requirements of current legislation, and best practice. If current practices do not improve, the environmental values we desire from our waterways will be reduced or lost. This will have direct impacts upon the way we interact with waterways socially and affect both tourism and commercial livelihoods.

Currently there is a large focus on sediment control to clean up eroded material however this approach does not consider that preventing soil erosion should be the primary means of sediment control. Where preventing soil erosion is not practical, temporary and/or permanent measures to capture suspended sediment and reduce turbidity are used to support erosion control. Unless erosion control is a priority the following will continue:

- Continued discharge of sediment laden water from construction sites;
- Failure to prevent causes of erosion at the source;
- Reliance on end-of-line clean up strategies; and
- Increased costs and dependence on enforcement actions.

### 2.0 State Policy

The *Queensland State Planning Policy (SPP)* highlights the need to adopt effective stormwater and erosion management controls during construction to minimise land development impacts. The SPP recognises the potential waterway health benefits of treating a greater volume of stormwater runoff during the construction phase and mandates a treatment volume as well as a discharge limit. The SPP does not provide any guidance on how to achieve compliance, however Healthy Land and Water (HLW) has produced a guideline titled *Sediment Management on Construction Sites – Complying with the SPP (July 2017) – Technical Note for Local Government Development Assessment & Compliance*

Officers. The document lists five ways to achieve compliance including the use of a High Efficiency Sediment (HES) Basin. The uptake of HES basins has been limited due to:

- Poor linkage between the SPP and design guidance;
- Poor understanding of design standards and how HES basins work;
- Concerns that HES basins are more expensive than previous sediment basins types;
- No publicly available local data to confirm the effectiveness of HES basins; and
- Concerns the use of coagulants or flocculants may lead to eco-toxicity issues.

SQ endorses the adoption of new technologies that are more efficient in managing sediment runoff and is encouraged by the work being undertaken on HES basins. SQ believes that the following is required for the industry to adopt HES basins:

- Greater awareness of design guidelines;
- Improved industry capacity to design, construct, operate and maintain HES basins;
- Continued research and updating of design documents to provide industry confidence that they provide effective treatment; and
- Improved knowledge on the types, and performance of commercially available coagulants and flocculants and their correct use for effective treatment.

### **3.0 Capacity and compliance**

SQ believes that ESC plans should be prepared by qualified professionals. Soil scientists, Certified Professionals in Erosion and Sediment Control (CPESCs), Registered Professional Engineers of Queensland (RPEQs), construction supervisors, and environmental scientists all play a part in developing a good ESC plan. It is unlikely that one profession alone can complete a good ESC plan. Good plans will result from:

- Multiple experienced professionals preparing an ESC plan focusing only on their respective areas of knowledge;
- Designers and regulators taking greater effort in developing and reviewing plans to ensure compliance with the legislation and best practice guidelines;
- Additional training to upskill all facets of the industry from designers, foreman, contractors, regulators and auditors to ensure best practice is adopted; and
- Continued adoption, review and update of the International Erosion Control of Australasia Best Practice Erosion and Sediment Control.

### **4.0 Summary**

Stormwater Queensland supports best practice erosion and sediment control to prevent excessive volumes of sediment entering waterways and is committed to:

- Educating members to understand the causes of erosion and encourage the implementation of best practice erosion and sediment controls;
- Promoting that ESC plans must be prepared (or at least reviewed) by qualified and competent practitioners with the required training and experience;
- Collating comments from members to inform future revisions of policy and design documents; and
- Working with our industry partners to develop and improve the adoption of innovative ESC solutions such as HES basins.