

Chapter 4 - Erosion Prevention and Sediment Control

9.4.1 Purpose

- (1) The purpose of this policy is to -
 - (a) Set out the requirements for the preparation and submission of Erosion Prevention and Sediment Control (EPSC) plans and/or technical reports associated with development applications under the planning scheme;
 - (b) Provide information relating to control and management of erosion and sediment for development within the local government area;
 - (c) Ensure that the environmental values of local waterways and Moreton Bay are protected from land disturbing development and that all development addresses the requirements of the -
 - (i) *Integrated Planning Act 1997*;
 - (ii) *Environmental Protection Act 1997*;
 - (iii) *Environmental Protection (water) Policy 1997*;
 - (iv) *South East Queensland Regional Water Quality Management Strategy*.

9.4.2 Applicability

- (1) This policy applies to all development applications on sites where earthworks and/or clearing of vegetation is proposed under the planning scheme.

9.4.3 General

- (1) The construction of erosion and sediment control works is in accordance with AUS-SPEC#1 unless otherwise specified in -
 - (a) the Erosion Prevention and Sediment Control Code; or
 - (b) this chapter.

9.4.4 Stormwater Management

- (1) The local government is committed to minimising erosion and sedimentation, and preventing the degradation of the ecological health of the receiving environment which can result from development, both during and after construction. The local government's *Urban Stormwater Management Plan* and *Waterway Management Plan* identify the environmental values and water quality objectives that will ensure the protection and/or enhancement of the receiving environment.
- (2) Effective waterway and stormwater management involves -
 - (a) integrating both permanent and temporary water quality control measures and Stormwater Quality Improvement Devices (SQIDs) into the design;
 - (b) programming and timing of works to minimise soil erosion;
 - (c) an ongoing commitment to the monitoring and maintenance of water quality control measures;
 - (d) minimising the volume of stormwater treated by maximising infiltration into the ground;
 - (e) making use of stormwater for recycling;
 - (f) minimising the area of disturbance by staging works and diverting uncontaminated stormwater around disturbed areas;

- (g) minimising the impact on receiving waters by protecting and enhancing the riparian areas of waterways and drainage lines within the site.

9.4.5 Erosion and Sediment Control Plan

9.4.5.1 General

- (1) An erosion and sediment control program including plans and specifications are prepared for both temporary and permanent control of sediment, erosion and gross pollutants.
- (2) The Consultant Engineer is to prepare the sediment and erosion control plan in accordance with -
 - (a) the Erosion Prevention and Sediment Control Code;
 - (b) this chapter;
 - (c) the Stormwater Management Code;
 - (d) Chapter 6 - Stormwater Management of the Infrastructure Works Policy.
- (3) The erosion and sediment control plan is to show, as a minimum, the information required by Chapter 2, Documentation and General Conditions, section 9.2.5.17.
- (4) The design of proposed Erosion Prevention and Sediment Control (EPSC) measures on-site should be dependent on the level of risk associated with that site. Sites identified as having a higher risk will require a higher standard of EPSC than low risk areas. Factors that create higher risk areas include -
 - (a) highly erosive soils;
 - (b) steep slopes;
 - (c) close proximity to a sensitive ecosystem;
 - (d) seasonal weather conditions.
- (5) An EPSC plan should demonstrate that the proposed methods used to control sediment are sufficient for that site.
- (6) Upon agreement by the local government to the adequacy of the measures proposed, the sediment and erosion control plan is produced as a drawing forming part of a construction set.
- (7) It is emphasised that no matter which measures are selected and implemented, the Contractor is to properly maintain them to ensure that they adequately fulfil their function, in the opinion of the local government.

9.4.5.2 Site Supervision and Works

- (1) The Erosion Prevention and Sediment Control plan and construction notes are signed by the nominated person ultimately responsible for the site and will be used to verify compliance.

9.4.6 Information Requirements

- (1) To assist applicants, this policy identifies the level of information required for development based on the total area of land where the soil surface will be exposed. This includes -
 - (a) areas of excavation and fill;
 - (b) vegetation removal;

- (c) driveways;
 - (d) accessways.
- (2) Development that disturbs between 600m² and 1000m² of soil requires an Erosion Prevention and Sediment Control Plan that contains the following information -
- (a) property details such as address, real property description, total site area;
 - (b) north point and scale;
 - (c) property boundaries and adjoining roads;
 - (d) existing land contours at 0.5 metre intervals;
 - (e) location of proposed flow paths flowing through, adjoining or off the site;
 - (f) outline of the development showing clearly all areas which will be disturbed;
 - (g) proposed vehicle access;
 - (h) extent of excavation or fill;
 - (i) location of proposed stockpiles;
 - (j) location of proposed temporary erosion prevention and sediment control measures;
 - (k) an explanation of any changes to the measures as the works proceed;
 - (l) supplementary notes detailing inspection and maintenance management.
- (3) At this level, the plan is at a scale of at least 1:200 and identifies the erosion prevention and sediment control measures proposed for the site.
- (4) For development that disturbs an area greater than 1000m², erosion prevention and sediment control measures are incorporated as a component of the site stormwater management plan.

9.4.7 Permanent Methods of Waterway and Stormwater Management

- (1) Permanent Stormwater Quality Improvement Devices, On Stream measures, are works implemented at the direction of the local government to control run-off water quality beyond the initial construction and maintenance stages. Removal of such structures, if necessary, remains the responsibility of the local government.
- (2) Permanent methods for stormwater management aim to ensure that there is no deterioration of the environmental values and water quality objectives of receiving waters, and that the volume of stormwater runoff which occurs as a result of development is minimised.
- (3) The permanent methods of stormwater management include, but are not limited to -
 - (a) protection and enhancement of riparian zones of waterways and drainage lines;
 - (b) incorporation of water sensitive urban design principles including the minimisation of impervious surfaces so as to maximise stormwater infiltration;
 - (c) installation of Stormwater Quality Improvement Devices (SQIDs) such as trash racks, litter baskets, sediment traps, gross pollutant traps, detention basins, constructed wetlands and the like;
 - (d) natural channel design for constructed drainage lines in accordance with *Natural Channel Design Guidelines*, BCC December 2000;

- (e) consideration of on-site stormwater recycling options.

9.4.8 Temporary Methods of Waterway and Stormwater Management

- (1) Temporary Water Quality Control, Off Stream measures, is required to control and filter the run-off from areas disturbed by the contractor's activities. These erosion and sediment control measures are the first items constructed when work begins. Removal of these temporary measures remains the decision of the local government.
- (2) The Contractor maintains all sediment control measures proposed on the sediment control plan to the satisfaction of the local government.
- (3) The temporary methods for waterway and stormwater management are based on an environmental risk assessment approach, which includes consideration of -
 - (a) soil type;
 - (b) slope;
 - (c) seasonal factors;
 - (d) type and size of development;
 - (e) duration of site disturbance;
 - (f) sensitivity and proximity of the receiving environment.
- (4) In deciding the temporary methods for waterway and stormwater management, consideration is given to -
 - (a) minimising contaminated stormwater requiring cleanup treatment by diverting stormwater flow away from disturbed areas;
 - (b) minimising erosion and sediment transport from disturbed areas by -
 - (i) programming the works to minimise the area of exposed soils at any one time;
 - (ii) topsoiling and seeding of disturbed areas within 7 days of final trimming of earthworks and establishment of 70 percent ground cover within 30 calendar days;
 - (iii) when proposing the use of Stormwater Quality Improvement Devices (SQIDs) as construction phase stormwater controls, it is demonstrated that the SQID is capable of treating operational phase stormwater;
 - (iv) installation of temporary erosion and sediment control measures as close as practicable to the sources of sediment. Reliance on sediment basin/s at the bottom of the development as the only means of sediment control is not acceptable;
 - (c) for developments greater than 1 hectare, provision of a sediment basin/s designed and sized in accordance with the *Sediment Basin Design, Construction and Maintenance Guidelines*, BCC January 2001.

9.4.9 Maintenance of Waterway and Stormwater Management Measures

- (1) All temporary waterway and stormwater management measures are inspected -
 - (a) at least daily when work is occurring on the site and weekly when work is not occurring on the site;
 - (b) within 24 hours of expected rain;
 - (c) within 18 hours following a rainfall event.
- (2) Maintenance of erosion and sediment control measures occurs in accordance with Table 1.

Table 1 - Maintenance of Erosion and Sediment Control Measures

Type of erosion and sediment control measure	Maintenance trigger	Timeframe for completing maintenance
Sediment Basins	When settled sediment exceeds the volume of the sediment storage zone. Refer to <i>Sediment Basin Design, Construction and Maintenance Guideline</i> , BCC, 2001.	Within 7 days of the inspection
Other temporary erosion and sediment control measures	The capacity of the erosion and sediment control measure falls below 75 percent.	By the end of day on which it was inspected

- (3) The local government reserves the right to seek alterations to temporary erosion and sediment control measures throughout the construction period if it is believed that measures are inadequate for the particular site.
- (4) Applicable guidelines include -
- (a) *AUS-SPEC #1- Control of Erosion and Sedimentation. Queensland Development Construction Specification C211.*
 - (b) *Soil Erosion and Sediment Control Guidelines for Construction Sites* - Institute of Engineers, Australia, 1996;
 - (c) *Natural Channel Design Guidelines* - Brisbane City Council, December 2000;
 - (d) *Sediment Basin Design, Construction and Maintenance Guidelines* - Brisbane City Council, January 2001;
 - (e) The publications, *Best Practice Guidelines for the Control of Stormwater Pollution from Building Sites and Erosion and Sediment Control on Residential Building Sites*, are the local government's recommended references and are available free of charge from the local government.

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