

# Erosion Control

## Controlling Stormwater Pollution

### Fact Sheet 3

### Your Building Site

The Whitsunday Regional Council has developed this erosion and sediment control fact sheet to assist in its goal to protect, enhance and promote its natural assets. Soil erosion, sediment and litter from building sites can be major sources of stormwater pollution and can cause significant harm to our sensitive marine environments like the Great Barrier Reef.

#### Minimise Disturbance

Many sites need large-scale earthworks before building starts. These earthworks should be limited to the minimum required and should only start immediately before building. Topsoil should be stockpiled on-site for later use.

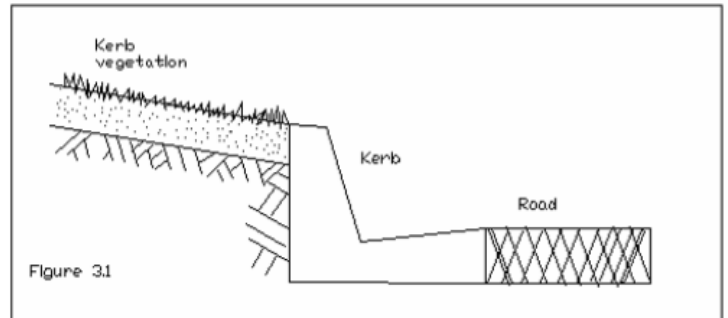


Figure 3.1

Maintain vegetation to reduce erosion

Preserve as much soil coverage as possible. Grass, leaf litter, gravel and erosion control blankets or matting can all prevent rain from turning exposed soil into mud. The impact of raindrops on exposed soil can significantly increase the turbidity of stormwater run-off.

Grassed areas down-slope of the work site can help minimise erosion. Where practicable, maintain kerb vegetation in a healthy state during the building process (refer Figure 3.1 above).



The stockpile must be located behind the sediment fence

#### Stockpiles

Stockpiles and building materials are not allowed to be stored on the footpath or within the road reserve, unless approved by your council. Stockpile losses can be minimised by using covers. All stockpiles and building materials should be located within the sediment control zone (the area upslope of a sediment fence or other appropriate sediment barrier).

To minimise erosion and the loss of sand and soil, stockpiles should not be located within an overland flow path. If it is impractical to avoid stormwater run-off being directed to a stockpile, a flow diversion bank should be constructed up-slope of the stockpile to direct run-off in a controlled manner around the stockpile (refer Figure 3.2). If the placement of erodible material on a road surface is necessary to undertake work and no other reasonable options are available, the materials must be removed immediately if rainfall is imminent or occurring. Otherwise, it should be removed before the end of the day's work. Road surfaces should be cleaned with a shovel and broom or a street sweeper, but not washed clean with water (refer Fact Sheet 6).

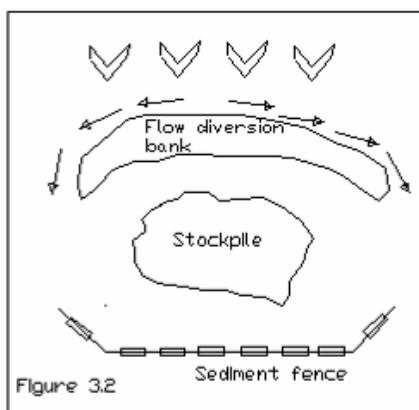


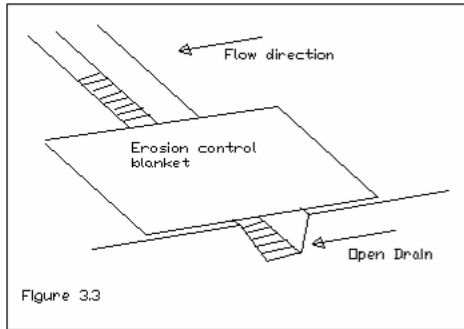
Figure 3.2

Flow diversion bank located up-slope from stockpile to divert overland flow

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Erosion control mats or blankets can reduce soil erosion

#### Erosion Control Blankets

On soils with a high erosion risk, and on steep sites when there is a delay in building works or site rehabilitation, erosion control blankets or matting can be used to minimise soil erosion and the pollution of stormwater (refer Figure 3.3). Erosion control blankets or matting are also suitable when revegetating slopes steeper than 4(H):1(V), unless well-anchored turf is used. There is a wide variety of erosion control blankets on the market. Generally a 100%-biodegradable blanket is suitable for most building sites, unless the blanket is used to protect a

steep overland flow path.

#### Service Trenches

To avoid unnecessary soil erosion, service trenches should be backfilled, capped with topsoil and compacted to a level at least 75-100 mm above the adjoining ground level (either manually or with a small machine) as soon as possible.

This practice allows for some subsidence of the fill material, and ensures the fill is sufficiently compacted to avoid erosion at a later time. (Note that trenches must be backfilled in accordance with AS3500).



Service trenches should always be backfilled, capped with topsoil and compacted



Prompt revegetation and landscaping is essential

#### Site Rehabilitation

All ground disturbed by the building activity should be quickly and progressively stabilised (for example, by revegetating) so that it can no longer act as a source of sediment. Turfing is the most effective form of site stabilisation. Grass seeding may also be used, but is less effective than turfing.

#### Garden Beds

Mulch should be applied to open garden beds to minimise unnecessary soil loss. Mulch placed at a depth of 75-100 mm will help to establish plants, reduce water losses and control weed growth.

#### Further Details:

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*These fact sheets are based on those produced by the South East Queensland Healthy Waterways Partnership.*