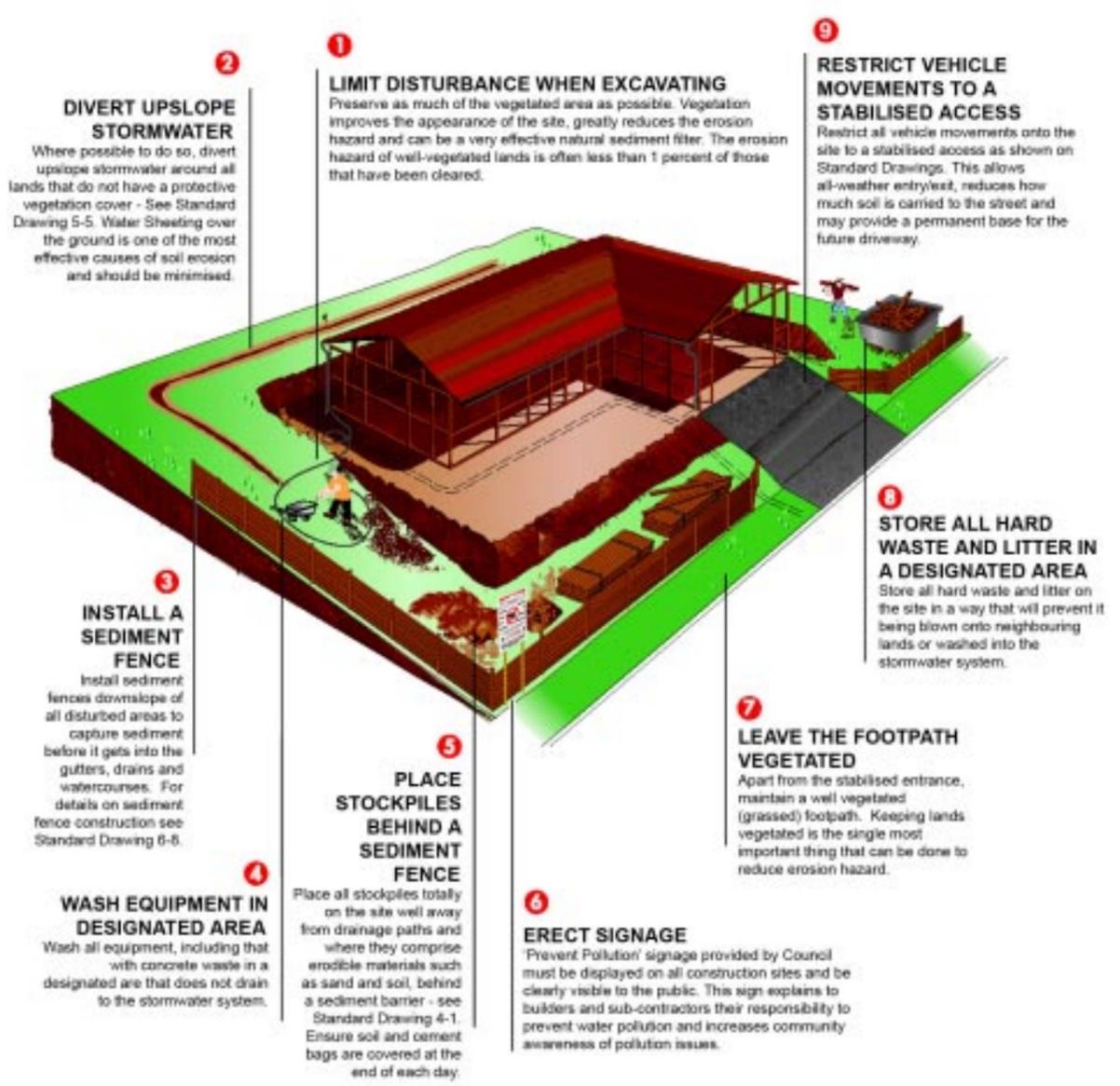


# Planning for Erosion Prevention and Sediment Control

## WAYS YOU CAN REDUCE EROSION AND CONTROL SEDIMENT ON A BUILDING OR CONSTRUCTION SITE

Follow these site management practices and you will help reduce impact on our waterways and avoid incurring a fine.



### Site Rehabilitation

The rehabilitation of construction sites should be carried out quickly, progressively stabilising disturbed areas with vegetation or landscaping. Maintenance of sediment controls will continue to be necessary until all pollution sources from the site are stabilised (e.g. maintain sediment fences until turf establishes).



### When is an Erosion and Sediment Control Plan required?

All builders/developers are required to prepare an Erosion and Sediment Control Plan showing how they will minimise soil erosion and trap sediment that may be eroded from the site during the construction of a building. The complexity of the Plan depends upon the nature and the scale of the particular development, especially the amount of land likely to be disturbed. In the Newcastle local government area, proposals involving disturbed areas larger than 50m<sup>2</sup> require an Erosion and Sediment Control Plan. Small-scale development, such as house extensions or the construction of standard driveways, may not require a Plan, but should still be undertaken in a manner that reduces pollution risk.

### What goes in the Plan & what are my responsibilities?

Responsibilities for stormwater management arise from the Protection of the Environment Operations (POEO) Act 1997. You can comply with the POEO Act by preparing an Erosion and Sediment Control Plan that shows how you will minimise stormwater pollution and implement the Plan after Council approval.

The plan should be a stand-alone document consisting of both drawings and a commentary that can be understood easily by all site workers. This brochure outlines the information to be contained in a Plan for a single residential allotment. Make sure everyone working on the site understands the Plan and how important it is to not pollute stormwater.

A more detailed Soil and Water Management Plan is required for larger-scale developments, where more than 1,000m<sup>2</sup> of land is to be disturbed, in accordance with Newcastle City Council's *Development Control Plan 50: Stormwater and Water Efficiency for Development Sites 2004* (DCP 50).

The POEO Act gives Council the powers to issue clean up or prevention notices and on the spot fines of up to \$1,500. Higher penalties can be imposed for serious pollution incidents, should Council institute legal action. You are required to notify Newcastle City Council when a pollution incident occurs that causes or threatens environmental harm.

Builders/developers have the responsibility to manage the following pollution sources:

- air pollution, including dust emissions;
- noise that might interfere with neighbouring properties;
- discharges, including erosion, leakage or spills of construction materials, soil, sand, gravel slurries and concrete that may enter stormwater;
- trade and domestic rubbish, including litter packaging, off-cuts and spoiled materials; and
- toxic chemicals, including fuels, paints, solvents, sealants, adhesives, lubricants and pesticides.

A number of these matters may be addressed in the Erosion and Sediment Control Plan.

### COMPULSORY SIGNAGE FOR CONSTRUCTION SITES

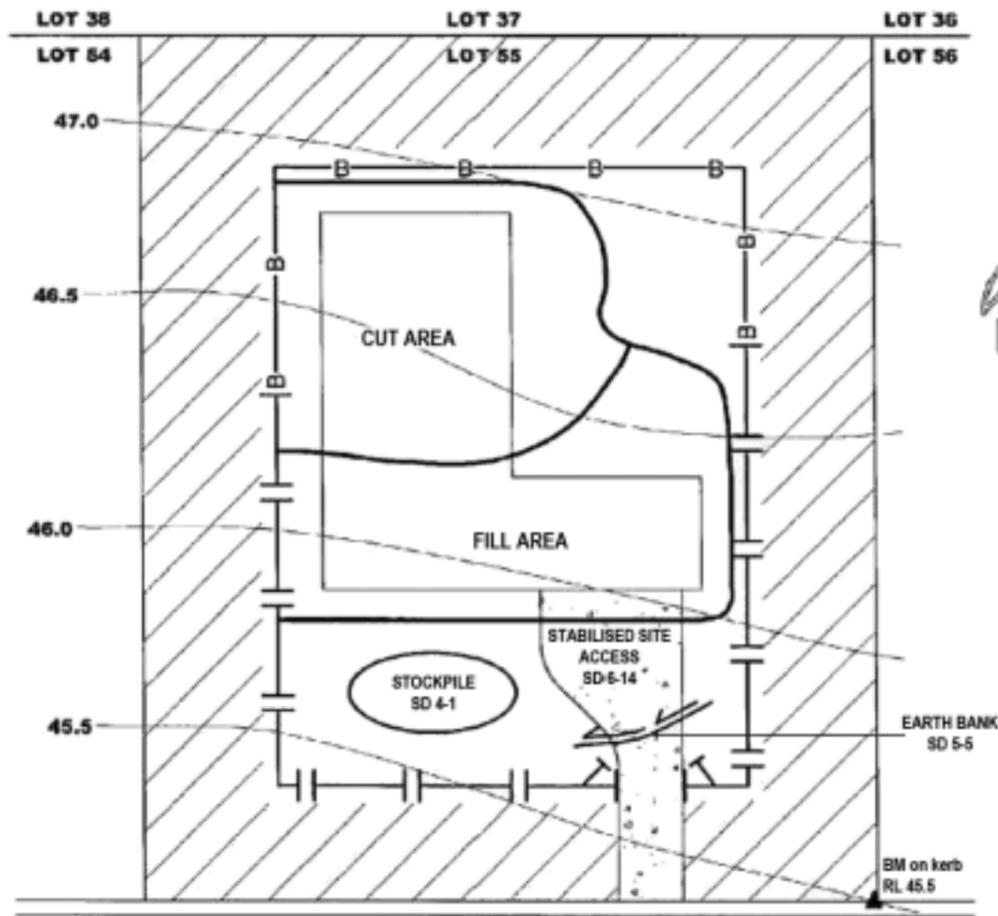
Newcastle City Council requires all construction sites to display this sign provided by Council upon approval of a development application.

The sign must be displayed on-site at all times and be visible to the public and site workers.



# A Model Erosion and Sediment Control Plan

# Standard Drawings



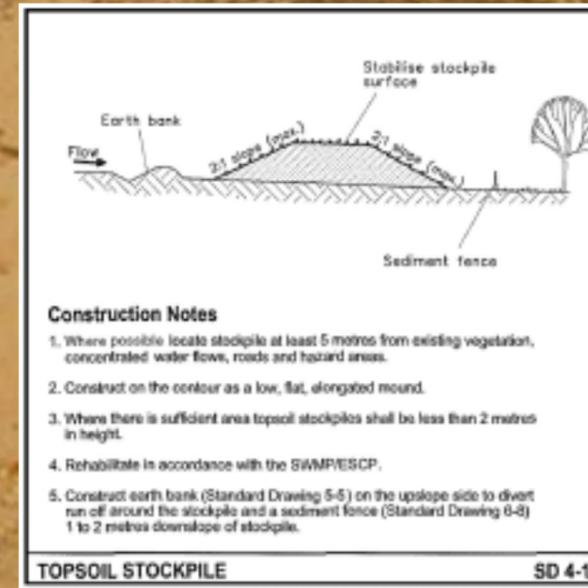
**N E W S T R E E T**

## LEGEND

- Earth bank refer standard drawing SD 5-5
- Undisturbed area
- Barrier fencing
- Sediment fencing refer SD 6-8

## NOTES

1. Site works are not to start until the erosion and sediment control measures are installed and functional.
2. Entry and departure of vehicles is to be confined to the stabilised site access.
3. Topsoil is to be stripped and stockpiled for later use in landscaping the site. Topsoil is to be respread and all disturbed areas rehabilitated (turfed) within 20 working days of completion of works.
4. The footpath, other than the stabilised site access is not to be disturbed, including stockpiling of materials. Where essential works (eg drainage) are required, the footpath is to be rehabilitated (turfed) as soon as possible.
5. Bins are to be provided for building waste and arrangements are to be made for regular collection and disposal.
6. Roof guttering is to be connected to the stormwater system as soon as practicable.
7. All erosion controls are to be checked daily (at a minimum weekly) and after all rain events to ensure they are maintained in fully functional condition.

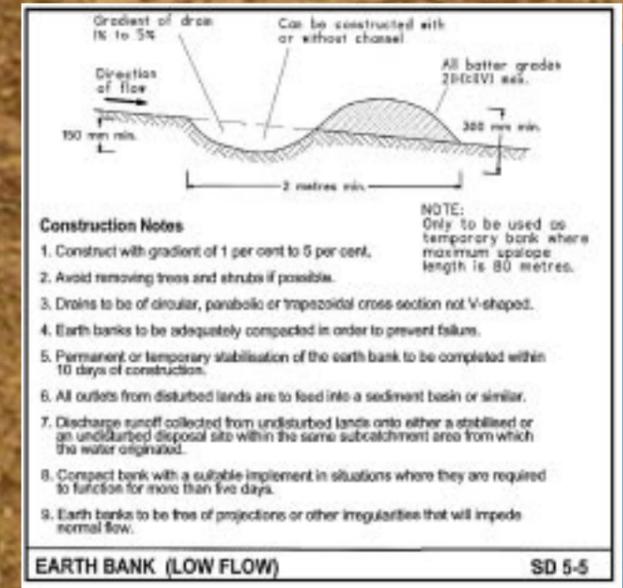


**TOPSOIL STOCKPILE**

**SD 4-1**

### Construction Notes

1. Where possible locate stockpile at least 5 metres from existing vegetation, concentrated water flows, roads and hazard areas.
2. Construct on the contour as a low, flat, elongated mound.
3. Where there is sufficient area topsoil stockpiles shall be less than 2 metres in height.
4. Rehabilitate in accordance with the SWMP/ESCP.
5. Construct earth bank (Standard Drawing 5-5) on the upslope side to divert run off around the stockpile and a sediment fence (Standard Drawing 6-8) 1 to 2 metres downslope of stockpile.



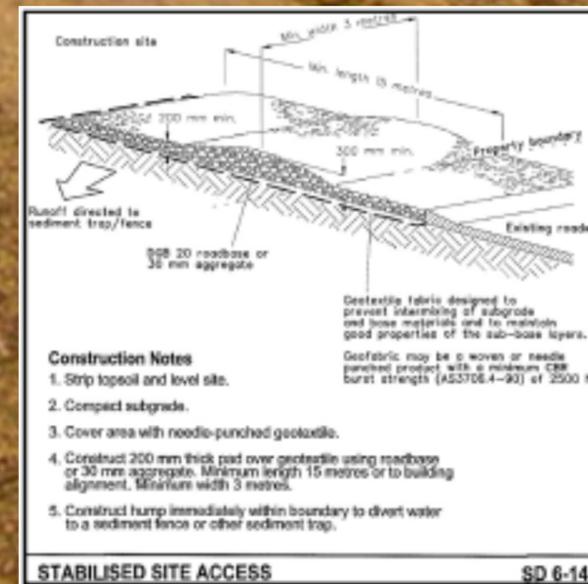
**EARTH BANK (LOW FLOW)**

**SD 5-5**

### Construction Notes

1. Construct with gradient of 1 per cent to 5 per cent.
2. Avoid removing trees and shrubs if possible.
3. Drains to be of circular, parabolic or trapezoidal cross section not V-shaped.
4. Earth banks to be adequately compacted in order to prevent failure.
5. Permanent or temporary stabilisation of the earth bank to be completed within 10 days of construction.
6. All outlets from disturbed lands are to feed into a sediment basin or similar.
7. Discharge runoff collected from undisturbed lands onto either a stabilised or an undisturbed disposal site within the same subcatchment area from which the water originated.
8. Compact bank with a suitable implement in situations where they are required to function for more than five days.
9. Earth banks to be free of projections or other irregularities that will impede normal flow.

**NOTE:**  
Only to be used as temporary bank where maximum spacing length is 80 metres.

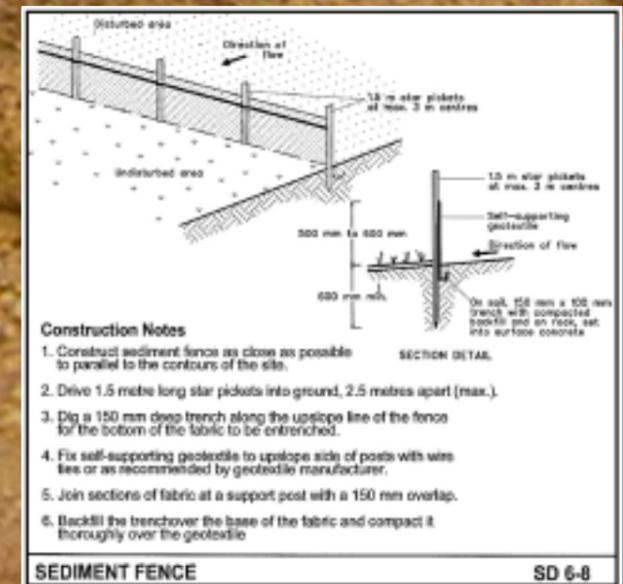


**STABILISED SITE ACCESS**

**SD 6-14**

### Construction Notes

1. Strip topsoil and level site.
2. Compact subgrade.
3. Cover area with needle-punched geotextile.
4. Construct 200 mm thick pad over geotextile using roadbase or 30 mm aggregate. Minimum length 15 metres or to building alignment. Minimum width 3 metres.
5. Construct hump immediately within boundary to divert water to a sediment fence or other sediment trap.



**SEDIMENT FENCE**

**SD 6-8**

### Construction Notes

1. Construct sediment fence as close as possible to parallel to the contours of the site.
2. Drive 1.5 metre long star pickets into ground, 2.5 metres apart (max.).
3. Dig a 150 mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
4. Fix self-supporting geotextile to upslope side of posts with wire ties or as recommended by geotextile manufacturer.
5. Join sections of fabric at a support post with a 150 mm overlap.
6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

## Maintenance of Controls

All erosion and sediment control works should be checked daily (at a minimum weekly) and after each rainfall event to ensure they are working properly. Maintenance might include:

- (i) Removing sediment trapped in sediment fences, catch drains or other areas;
- (ii) Topping up the gravel on the stabilised access;
- (iii) Repairing any erosion of drainage channels; or
- (iv) Repairing damage to sediment fences.

Remember that the erosion and sediment control works might need to change as the slope and drainage paths change during the development phase. Best practice includes anticipation of the likely risks and being prepared for unusual circumstances, e.g. having spare sediment fence material on the site.