

# FACT SHEET 8B UNDERSTANDING EROSION AND SEDIMENT CONTROL

Sedimentation is a major issue affecting Lake Macquarie, its tributaries and Council's Stormwater system with an estimated 60,000 tonnes of material, mainly sediment, deposited in Lake Macquarie annually. The sediment smothers aquatic plants and animals, reduces the depth of waterways, and can make water unpleasant to swim and fish in. The sediment can carry nutrients and heavy metals and may lead to algae blooms. The sediment can reduce the capacity of stormwater infrastructure and contribute to flooding, and increase maintenance costs.

## Best Practice



## Poor Management



## Dispersive soils can be problematic during construction because they:

Lake Macquarie Development Control Plan (DCP), and Erosion and Sediment Control Guideline

The INTENT of Council's requirements is to prevent erosion, and sediment-laden run-off generated during site preparation, construction and the ongoing use of land, leaving site and polluting waterways.

The minimum standard of erosion prevention and sediment control planning for a development is categorised by the total area of disturbed soil. This includes vegetation removal, cut and fill, driveways and access ways. Aim to prevent pollution on all development sites. Council recommends using an approach that incorporates various erosion and sediment control devices in sequence.

### During Construction

- **Clean equipment in a designated area** - Clean all equipment, eg for bricklaying, painting, plastering, concreting, and tiling, in a designated area that does not drain to the stormwater system. Install an appropriate trap away from the stormwater inlet.
- **Divert up-slope water** - Rain falling onto, and water flowing, over bare ground can cause a lot of soil erosion. Where possible, divert up-slope water around your site using a small diversion channel or bund above the site. It may be constructed using sediment fence, sand bags, earth, or mulch. Ensure you do not divert water into someone else's property.
- **Undertake site rehabilitation quickly** - To reduce soil erosion, consider stabilising bare areas progressively during construction and promptly after it. Stabilise areas with mulch, vegetation, polymers, or landscaping.

### Benefits of Erosion Prevention

- Improved on-site drainage and improved working conditions, especially in wet weather
- Better site presentation to the public
- Reduction in complaints, clean-up costs, and Council fines
- Improved water quality and visual amenity of our waterways
- Reduced impact on aquatic and marine ecosystems and improved waterway health
- Less sedimentation of our waterways and reduced dredging costs
- Improved environment for surfing, fishing, boating and other recreational activities

## Maintenance

Check all erosion and sediment control measures daily, before any forecast rainfall, and within 24 hours of any rainfall resulting in runoff. These inspections will identify any maintenance, or additional measures, required to prevent pollution. Remove accumulated sediment from behind sediment fences and out of sediment traps to maintain capacity.

### After Construction - Residential Landscaping

Prompt landscaping of disturbed areas will minimise soil erosion, and pollution. Several factsheets are available from Council.

### Further information:

- Fact Sheet 8A - Planning for Erosion Prevention and Sediment Control
- Council's Erosion and Sediment Control Officer – Phone Council 0249 210 333
- Lake Macquarie DCP and Council's Erosion and Sediment Control Guideline (available from Council)

#### Acknowledgements and Disclaimer:

This brochure has been prepared utilising information from Landcom (2004) 'Planning for Erosion and Sediment Control on Single Residential Allotments', and Newcastle City Council's 'A Guide to Understanding Erosion Prevention and Sediment Control'. It is for general information only and is not intended to cover every situation. It is not a regulatory document and you may need to seek independent professional advice.

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Protect the stormwater inlet



Paint trap



Penalties for water pollution under the *Protection of the Environment Operations Act 1997* (PEEO) include on-the-spot fines of \$4000 for individuals, and \$8000 for corporations.

### An Ideal Site for Erosion Prevention



Stockpile behind sediment fences

Bin inside site

Sediment fences with wings installed correctly

Stabilised site access with clean aggregate > 50mm

Clean road and gutter when sediment gets on road.

**NOTE:** Where appropriate, gutter bags made of sediment fence material and filled with clean aggregate may be in gutter downslope from site.

Penalties for water pollution under the Protection of the Environment Operations Act 1997 (POEO) include on-the-spot fines of \$4000 for individuals, and \$8000 for corporations. Prevention is cheaper than the fines.

Correct gutter bag placement

