

# Soil & Water Management on Building & Construction Sites



## Where can I get further information on soil & water management?

Contact your local council, as they have the power and responsibility to regulate the building and construction industry. Usually they will issue a planning or building permit on condition that accepted guidelines for soil and water management are employed on site.

A Local Government Directory can be found on the Tasmanian Government's Department of Premier and Cabinet website [www.dpac.tas.gov.au](http://www.dpac.tas.gov.au) or on the Local Government Association of Tasmania website [www.lgat.tas.gov.au](http://www.lgat.tas.gov.au). Otherwise, check your phone book.

For additional copies contact the Derwent Estuary Program (03) 6233 3383 or NRM North (03) 6333 7777.

For updates on soil and water management on building & construction sites please visit [www.derwentestuary.org.au](http://www.derwentestuary.org.au).

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## Introduction

The building and construction industry is responsible for soil and water management throughout all phases of a development. To comply with their responsibilities all sectors of the building and construction industry should have a practical understanding of the accepted guidelines for soil and water management. These guidelines will help mitigate the impacts of building and construction site activities on soils, landforms and receiving waters by focusing on erosion and sediment control measures.



## What is soil erosion?

Erosion is the removal of soil by the flow of wind and water. It occurs naturally, but can be intensified by building and construction activities. When erosion occurs soil particles become suspended in water or air and are transported downstream or downwind, eventually settling out as sediment, sometimes far away from the building or construction site.

## Why is soil & water management important?

Soil erosion on building and construction sites can be a major source of sediment pollution in our waterways. The amount of soil erosion during the building and construction phase is considerably higher than what may occur in the overall life of the completed property. In fact, a single building block can lose four truckloads of soil in one storm. Any sediment that moves off-site typically enters stormwater drains, clogging the stormwater system and transporting attached pollutants including oils, heavy metals and hydrocarbons into local waterways. Excessive sediment that enters our waterways can kill fish and aquatic plants, silt up streams, and block stormwater pipes, which can lead to increased flooding.

## What are the benefits of soil & water management?

- Greater compliance with the appropriate regulations including state environmental laws, thereby reducing the risk of fines and other penalties.
- Improved wet weather working conditions, reduced downtime and earlier building completion.
- Fewer public complaints and a better public image for your business.
- Reduced stockpile losses and clean up costs.
- Healthier waterways and a cleaner environment for everyone.



## What are my legal responsibilities?

- Developers and builders have a legal obligation to take **all reasonable care** to reduce soil erosion and prevent sediment loss from building and construction sites. This also applies to other tradespeople such as excavator operators, earthmovers, landscapers, concreters, painters and delivery drivers.
- Supervisors need to ensure that workers under their control (e.g. sub-contractors) do not breach regulations.
- Workers also have a responsibility under the law to notify their supervisors if they see a pollution incident occurring. If the supervisor cannot be contacted, workers should notify the local council.
- A \$600 fine can be served on-the-spot for discharging pollutants including sediment with a maximum penalty of \$36,000 if taken to court.
- Contact your local council to find out the legal requirements for your site.

## What are accepted guidelines for soil & water management?

The fact sheets represent accepted guidelines for soil and water management and are divided into sediment control measures and erosion control measures. Erosion control measures hold the soil in place and reduce soil removal by rainfall or runoff. Sediment control measures capture the eroded soil from the runoff preventing it from leaving the building or construction site.

1. Soil & Water Management on Large Building & Construction Sites
2. Soil & Water Management on Standard Building & Construction Sites
3. Soil & Water Management Plans
4. Dispersive Soils – High Risk of Tunnel Erosion
5. Minimise Soil Disturbance
6. Preserve Vegetation
7. Divert Up-slope Water
8. Erosion Control Mats & Blankets
9. Protect Service Trenches & Stockpiles
10. Early Roof Drainage Connection
11. Scour Protection – Stormwater Pipe Outfalls & Check Dams
12. Stabilised Site Access
13. Wheel Wash
14. Sediment Fences & Fibre Rolls
15. Protection of Stormwater Pits
16. Manage Concrete, Brick & Tile Cutting
17. Sediment Basins
18. Dust Control
19. Site Revegetation



## How do I know which control measures to use for my site?

There are 19 fact sheets, each covering different sediment and erosion control measures. To determine which fact sheet(s) is/are applicable to your site check the title of the fact sheet and the top left box titled **What is it?** for a brief summary.

Remember, each site is different and sediment and erosion control measures need to be assessed on a site-by-site basis. Plan to integrate sediment and erosion control measures with different building and construction activities. It is also much easier and more cost effective to specify sediment and erosion control measures at the planning stage, rather than trying to organise them just before commencing on-ground works.

## How should the fact sheets be used?

Use the fact sheets as needed, but especially if there are soil and water management requirements on your planning or building permit. Implement the appropriate sediment and erosion control measures on site in accordance with your permit.

Subdivisions or activities creating greater than 250m<sup>2</sup> of ground disturbance may need to submit a Soil and Water Management Plan (SWMP) as a requirement of their planning or building permit. SWMPs are a standard method for planning and implementing sediment and erosion control measures on larger building and construction sites. See **Fact Sheet 3. Soil & Water Management Plans** for details.

## When do the control measures need to be in place?

Sediment and erosion control measures should be installed early, before the start of any ground disturbance and maintained in good working order throughout the building and construction period. They should remain in place until all disturbed areas have been stabilised, restored or sealed to the satisfaction of the council.

## Checklist for soil & water management

In summary, effective soil and water management on building and construction sites depends upon meeting the following practices:

- Select erosion and sediment control measures at the planning stage and integrate them with other design aspects including engineering design.
- If required, prepare a SWMP and make sure everyone working on the site understands it and how important it is not to pollute.
- Install sediment and erosion control measures before the start of any ground disturbance.
- Minimise the area of soil disturbed and exposed to erosion.
- Preserve existing vegetation.
- Divert 'clean' water flows away from the work site.
- Capture sediment from runoff before it leaves the site.
- Rehabilitate disturbed areas quickly.
- Inspect and maintain your erosion and sediment control measures throughout the project.