# EROSION AND SEDIMENT CONTROL ON RESIDENTIAL BUILDING SITES

Controlling stormwater pollution on your building site

## Impacts of stormwater pollution

Stormwater contains many pollutants which can enter our local creeks, rivers and marine systems, causing harm to native animals, plants, fish breeding habitats and recreational areas.

Soil erosion, sediment and litter from building sites can be major sources of stormwater pollution, and can cause:

- significant harm to the environment eg. loss of valuable seagrass habitat for marine creatures
- weed infestation of waterways caused by sediment settling on the creek beds and transporting nutrients
- loss of valuable topsoil

HEALTHY WATERWAYS

- significant public safety problems when washed onto roads and intersections
- blocked drains creating flooding and increased maintenance costs to the community
- damage to recreational fishing and the seafood industry.

## Stormwater is not wastewater

Stormwater is not wastewater. Stormwater flows untreated into the waterways that provide vital habitats for animals and plants. It is your responsibility to help keep stormwater pollution-free.

# **Erosion and sediment control on building sites**

Soil erosion on building sites can be a major source of sediment pollution in our waterways. A single building block can lose up to four truckloads of soil in one storm. Sediment, washed from building sites into gutters and stormwater drains, can cause flooding and affects the water quality and fish stocks in our freshwater and marine environments.

Effective on-site erosion and sediment control provides many benefits:

- all-weather site access
- improved wet weather working conditions
- improved drainage and reduced site wetness
- less mud and dust problems
- reduced stockpile losses
- reduced clean-up costs
- better public image
- better looking, more marketable sites
- fewer public complaints
- reduced risk of fines
- better fishing for everyone
- cleaner waterways.



1

Effective on-site erosion and sediment control

2

# **Stormwater pollution prevention – it's up to you!** HERE'S WHAT YOU CAN DO TO REDUCE EROSION AND PREVENT SEDIMENT FROM LEAVING YOUR SITE.

The following site management practices will minimise soil erosion and sediment run-off from your building site.

### MINIMISE DISTURBANCE WHEN EXCAVATING

Preserve as much grassed area as possible. These areas not only improve the appearance of your site, they also reduce soil erosion and filter much of the sediment from stormwater run-off before it reaches the drainage system.

#### CATCH DRAINS AND PERIMETER BANKS

Where possible, allow for diversion of up-slope stormwater around the work site and other disturbed surfaces.

#### CONCRETE WASTE AND WASHING

Waste concrete and household paint must not be allowed to wash into the gutters or the street.

#### **INSTALL A SEDIMENT BARRIER**

Sediment barriers down-slope of the building site trap coarse sediment before it can wash into gutters, drains and waterways. Sediment barriers can be made from geotextile sediment fabric attached to posts with the geotextile buried in an up-slope trench.

## Metal star pickets driven firmly into ground Geotextile sediment fabric Plastic safety cap 0.6 m max 0.2 m

SAND AND SOIL STOCKPILES

Stockpiles should be placed wholly on the construction site and behind a sediment barrier.

## **Penalties**

Breaches of the legislation may result in:

- on-the-spot fines under the Environmental Protection (Water) Policy 1997 (ie. \$300 to \$600)
- prosecutions under the Integrated Planning Act 1997 or the Environmental Protection Act 1994 (ie. fines of thousands of dollars or prison sentences for serious offences).

# Who can be fined on a building site?

Anyone who does not comply with the duties mentioned above can be prosecuted or issued with on-the-spot fines. Companies, builders, subcontractors and individual workers can all be fined.

## ENTRY/EXIT POINT (RUMBLE PAD)

Restrict vehicle access to one entry/exit point where possible. Stabilising the access with rock will allow all weather access and will reduce the amount of soil carried off the site by vehicles.

# EARLY STORMWATER DRAINAGE

Connect temporary or permanent downpipe/s to the underground stormwater system immediately after the roof is laid – or slow and spread the flow from downpipes to avoid localised erosion. Downpipes may be temporarily removed during wall construction. All stormwater should discharge in a manner that does not cause soil erosion.



10 A 100



Controlling stormwater pollution on your building site

## **Queensland environmental law**

HEALTHY VATERWAYS

### **ENVIRONMENTAL PROTECTION ACT 1994**

All Queenslanders have a legal duty under the *Environmental Protection Act 1994* to take all reasonable and practicable measures to minimise or prevent environmental harm. Such harm can be caused if sediment from building sites enters stormwater drains or waterways.

In addition, people who are concerned with management in a corporation have an additional duty under the *Environmental Protection Act 1994* to ensure their corporation complies with the Act. This means supervisors need to take reasonable and practicable steps to ensure that the people under their control do not breach environmental laws.

People who become aware of environmental harm in association with their work (eg. loss of sediment from their site into a watercourse) have a legal duty under the *Environmental Protection Act 1994* to notify their employer. The employer must then rectify the problem, or risk prosecution.

### ENVIRONMENTAL PROTECTION (WATER) POLICY 1997

This policy sits under the *Environmental Protection Act 1994*. The *Environmental Protection (Water) Policy* 1997 provides for specific offences relating to the deposit and/or release or potential release of sediment or building wastes to stormwater drains, roadside gutters and Queensland waters eg. creeks and waterways.

Builders waste has the potential to be released into stormwater drains, and is governed by these laws.

#### THE INTEGRATED PLANNING ACT 1997

The Integrated Planning Act 1997 is the mechanism for assessing all developments within Queensland. This Act establishes the process for integrated planning and development assessment in an ecologically sustainable way. Under the Integrated Planning Act 1997 it is a serious offence to breach development conditions eg. those dealing with erosion and sediment control or stormwater quality.



## **Other approvals**

Councils in Queensland vary in their approval requirements. Contact your local council for further information on which approvals are required.

Council officer discussing erosion and sediment control problems on-site

For further information about the Healthy Waterways Campaign and The Partnership telephone (07) 3403 4206 or visit the Healthy Waterways website at www.healthywaterways.org



2