

PLANNING POLICY NO. 2

Erosion and Sediment Control

1.0 Purpose

The purpose of this Planning Scheme Policy is to:

- ensure compliance with the *Environmental Protection Act 1994*;
- establish a framework and guidelines to minimise potential environmental harm to Rockhampton's waterways from land disturbing activities; and
- improve the on-site management practices for the pre and post-construction phases of urban development.

1.1 Application of the Policy

This policy applies throughout Rockhampton City and will be considered when assessing development applications for:

- material change of use;
- Reconfiguring a Lot; and
- operational works.

This policy is to be considered when assessing any development that has the potential to involve:

- disturbance of the existing ground surface including that which arises from clearing, levelling, shaping, installation of services, filling or excavation; or
- changes in the velocity of runoff flowing overland or entering directly or indirectly into any waters.

2.0 Erosion and Sediment Control During Land Disturbing Activities

With the introduction of the *Environmental Protection Act 1994*, all Queenslanders have a **legal duty** to take 'all reasonable and practicable measures' to minimise or prevent 'environmental harm'. Sediment from a building site that enters stormwater drains or waterways can be considered as creating an 'environmental harm'. Therefore, effective erosion and sediment control on sites of urban construction is extremely important in the long-term protection of the Fitzroy River and other associated waterways.

As the impact of raindrops on exposed soil can significantly increase the turbidity of stormwater run-off, it is essential to:

- preserve as much soil coverage as possible; and
- utilise and maintain a number of effective control mechanisms to prevent sediment from individual building sites entering the waterways within Rockhampton City, and adjoining Shires.



3.0 Legal Obligations

Duty to Notify Environmental Harm

All individuals who become aware of significant 'environmental harm' in association with their work, have a legal duty under the Environmental Protection Act to notify their employer. Then it is the responsibility of the employer to notify the administering authority (ie Environmental Protection Agency).

Corporation's Duty

Corporations have an additional duty under the *Environmental Protection Act 1994* to ensure that their Company displays a 'duty of care' and complies with the requirements of the Act. Therefore it is important for accountable personnel to take all reasonable and practicable steps to ensure that the people under their supervision (including sub-contractors) whilst on site, do not breach environmental laws.

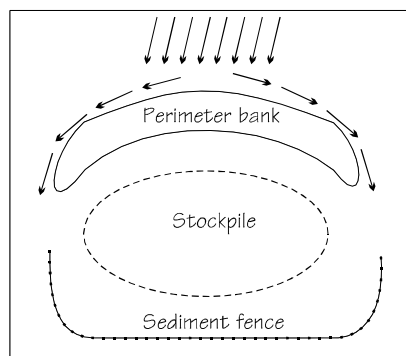
4.0 'Best Practice' Sediment and Erosion Control Measures

Rockhampton City Council aims to encourage the use of 'Best Practice' for the mitigation of the potential impacts of erosion and sedimentation during land disturbing activities.

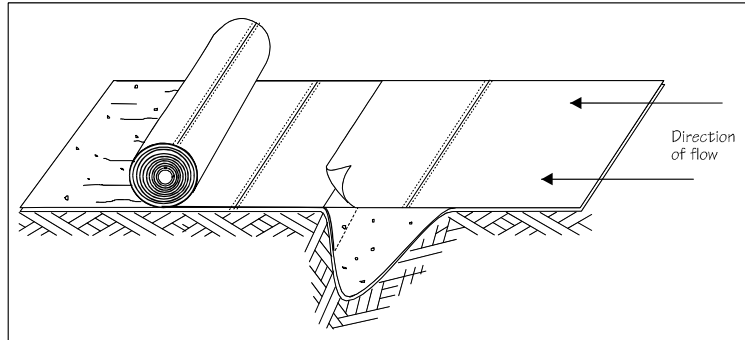
4.1 Erosion Control

To minimise erosion and the loss of sand and soil, stockpiles and building materials should not be located on the footpath, within the road reserve (unless written approval is obtained from Council) or within an overland flow path.

All stockpiles and building materials should be located within the sediment control zone (that area up-slope of a sediment fence or other appropriate sediment barrier) and stockpile losses can be minimised with the use of covers. If it is impracticable to avoid stormwater run-off being directed to a stockpile, then a perimeter bank should be constructed up-slope of the stockpile to direct run-off in a controlled manner around the stockpile.



Erosion control mats can be used to minimise soil erosion and the pollution of stormwater, if the site is situated on high erosion risk soils or on steep sites. Erosion control mats are also suitable when revegetating slopes steeper than 4(H):1(V) and generally a 100% biodegradable mat is the most suitable for building sites unless the mat is used to protect a steep overland flow path.

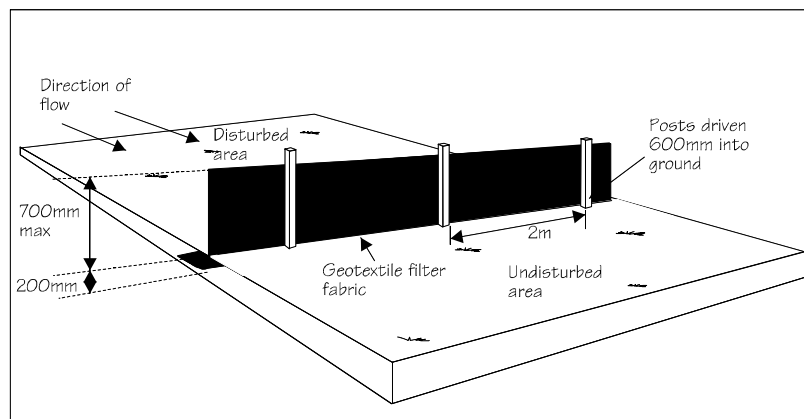


4.2 Sediment and Drainage Control

Sediment controls generally involve a stabilised construction entry / exit point to the site and sediment barriers installed along the lower side of the soil disturbance.

The entry / exit point should be restricted and stabilised to one location to ensure that sediment is not tracked off site. Refer to the Institute of Engineers Guidelines¹ for the preferred construction method for stabilising access points.

Sediment barriers are usually a specially manufactured geotextile sediment fence. Sediment fences must be located down-slope of the disturbance and along a constant land level to reduce the concentration affects of stormwater run-off on building sites. It is important sediment barriers are checked and maintained regularly to ensure their effectiveness.



¹ Soil Erosion and Sediment Control, Engineering Guidelines for Queensland 1996, The Queensland Division of the Institute of Engineers, Australia and The Queensland Branch of the Australian Institute of Agricultural Scientists.

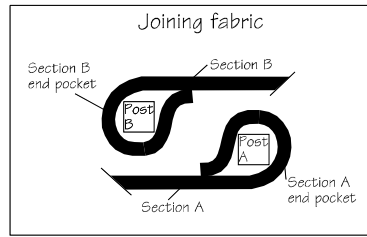
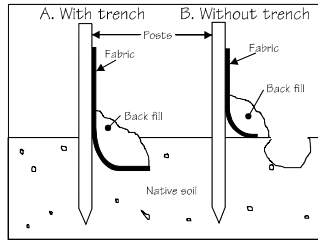
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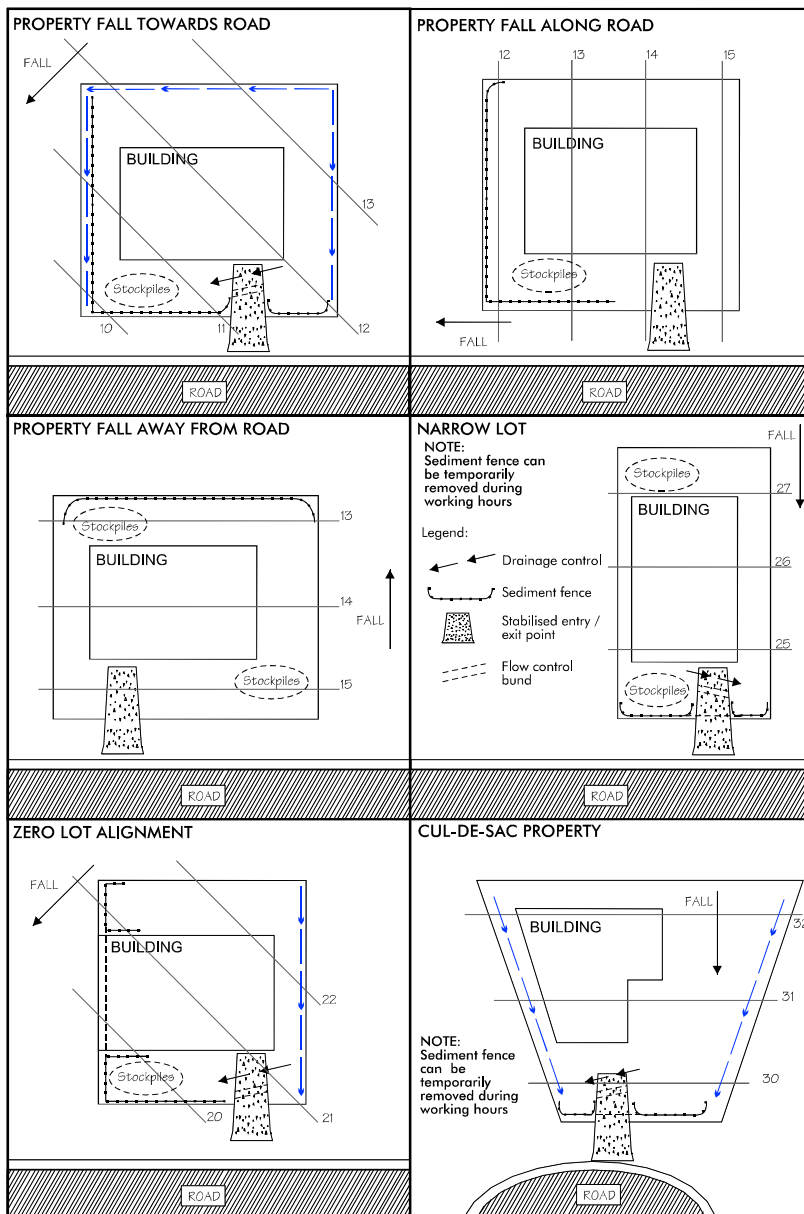
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As shown in the diagrams above the sediment fence can be stapled to approximately 40 mm square hardwood posts or wire tied to steel posts. Wire tied sediment fences have the advantage of being readily unhooked from their support posts during working hours to allow the unloading of materials. The lower edge of the geotextile material used for the sediment fence must be buried 200mm under the surface of the natural ground level. In areas where it is impractical, the lower portion of the fabric should be placed on the ground upslope of the fence and buried under a 100 mm (min) layer of aggregate.

The following provides some typical drainage and sediment control layouts.



5.0 Erosion and Sediment Control Plans

Erosion and Sediment Control Plans required as a condition of development approval, are required to be lodged and assessed prior to building work commencing on site. Erosion and Sediment Control Plans allow the Council to assess (and enforce) the site management of erosion and sediment control for the benefit of minimising potential environmental harm.

5.1 Plans to be prepared by a suitably qualified person

A suitably qualified person, who is a certified Engineer, should prepare the Erosion and Sediment Control Plans.

5.2 Content and format of Plans

The Erosion and Sediment Control Plan should include all aspects of the site relating to site disturbance, erosion and sediment control and site restoration for the duration of the proposal from the initial commencing stage to completion of the proposed works.

Where a development is subject to the provisions of this policy, the proponent is strongly encouraged to meet with Council prior to lodgement of the application, this will assist in determining and clarifying the relevant items to be covered. **Figure 1** provides an example of how the Erosion and Sediment Control Plans are presented and the list below provides a general guide for the elements to be presented on the Erosion and Sediment Control Plan:

- existing and final contours;
- soil type;
- details of the site catchment area;
- property boundaries;
- road reserve;
- any adjoining sensitive receiving environments;
- outline of where the dwelling is located on site;
- diagrammatic representation of what erosion and sediment control measures will be utilised and where these controls will be utilised on site;
- construction materials, storage, stockpile details and handling areas;
- the extent of clearing or disturbance (if any) including the location and description of existing vegetation, proposed vegetation buffer strips, revegetation program;
- location of impervious areas other than roads;
- location of critical areas / vegetated buffer strips, drainage lines, water bodies, wetlands, tidal lands (including Highest Astronomical Tide), unstable slopes, floodplains and seasonally wet areas;
- diversion of uncontaminated up-site runoff around areas to be disturbed; and
- installation sequence, timing and maintenance program of the erosion and sediment control measures.



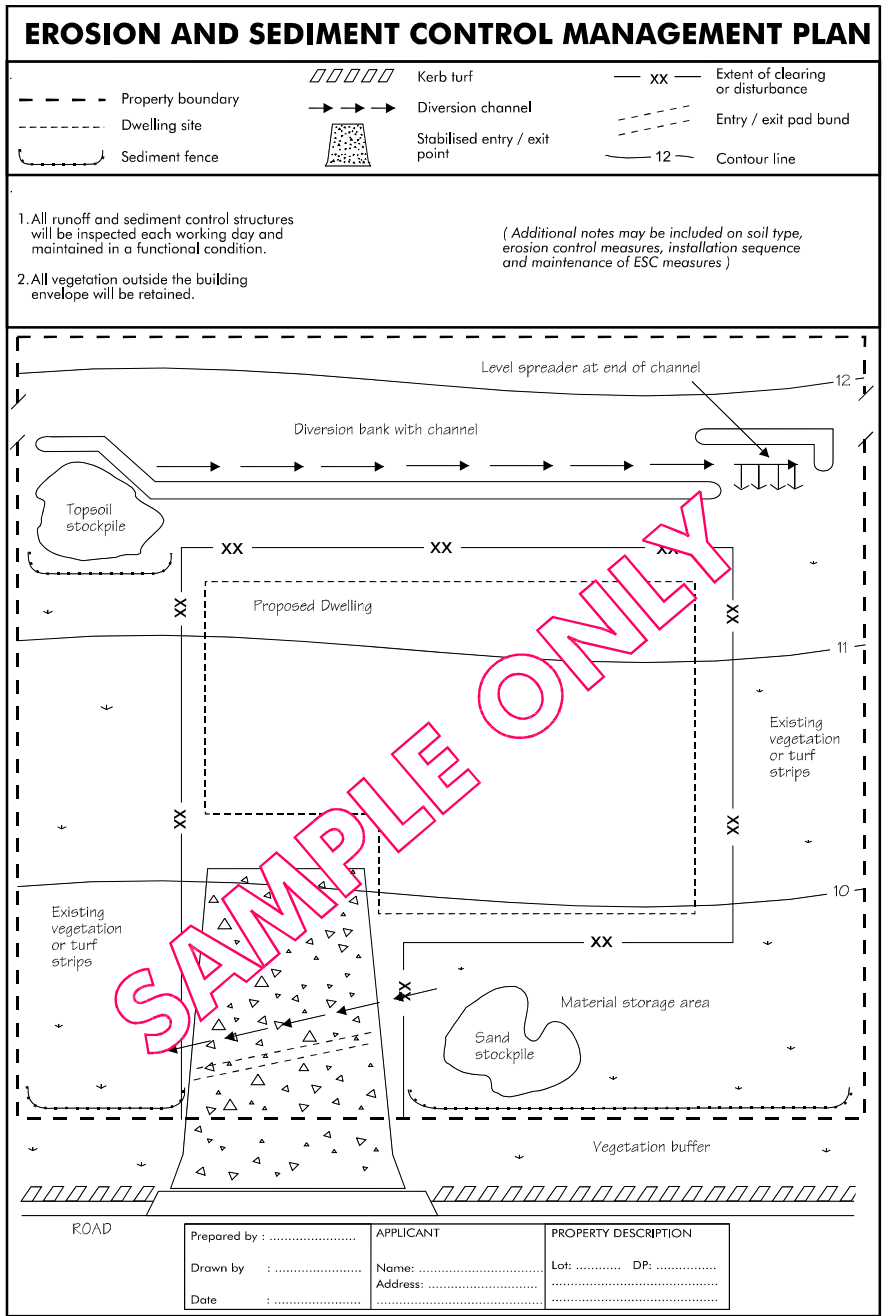
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Figure 1: Example of an Erosion and Sediment Control Management Plan



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