

REVEGETATE

WHAT IS THIS?

All areas disturbed by development activities must be promptly and progressively stabilised through landscaping and revegetation to reduce the potential for erosion. To support vegetation to grow, topsoil must be stockpiled separately from subsoil, and returned as the top layer to areas stripped during works. Once a development stage is complete, topsoil stabilised and revegetation established, downslope erosion and sediment controls can be removed.

Progressively revegetating or landscaping areas as works are completed (as opposed to delaying until the end of the development) will:

- reduce the cost of rework to areas impacted by erosion;
- reduce time and cost of maintenance to sediment controls;
- avoid possible fines; and
- improve your reputation.

WHAT DO I NEED TO DO?

Site revegetation as erosion control:

As you finish works in one area of the site, revegetate it. Vegetation is an ideal and usually inexpensive method of stabilisation because it reduces soil erosion by:

- absorbing the impact of raindrops;
- reducing the volume and velocity of runoff;
- binding the soil with plant roots; and
- protecting the soil from wind erosion.

Note: Revegetation should not be expected to provide all the soil erosion protection required on your site. Other erosion controls will be required if the soil is not stable. Use erosion control meshes, mats, and blankets on steep slopes to provide temporary protection until the vegetation is fully established (see page 44). Best practice requires any exposed areas at finished levels, including stockpiles of erodible materials or inactive areas, to be stabilised WITHIN 30 DAYS (maximum) or less.

Include explanations of the function and maintenance schedule for revegetation in all site inductions.

Temporary revegetation: Once established, annual grass species (e.g. annual ryegrass – *Lolium rigidum*) are an effective temporary ground cover (for a maximum of one year) because they are fast growing and can quickly develop a root system. Use annual grass species as erosion control and prevention where:

- the area can be watered to establish and maintain grasses;
- the area can be protected from grazing by wildlife;
- exposed soil needs to be stabilised until permanent vegetation grows;
- temporary protection (between 6-8 months) is required until landscaping occurs; and/or
- the area will be re-disturbed as part of site works (e.g. topsoil stockpiles).

Note: Annual grasses DO NOT provide effective erosion control during their early growth phase (first few weeks) unless the soil is prepared with a mulch layer (see section Spray-on soil stabilisers, page 41). Annual grasses die within one season providing limited soil coverage after 6-8 months. Grass may need mowing (mow without catcher) at least once before it can provide adequate soil coverage.

Permanent revegetation: Use native species from the surrounding area which are adapted to the local climate and have the greatest potential to establish successfully. This will also save you water and create habitat for wildlife. Options include planting with native perennial (long-lasting) grasses, including tussock grass (*Poa spp*), wallaby grass (*Rhytidosperma spp*) or kangaroo grass (*Themeda triandra*), installing turf strips, planting larger native or other species from seed, tube stock or spreading from surrounding bushland. If local seed stock is to be used for propagation, collect in advance. Plant into moist topsoil, not sub-soil (Figure 13).

You may need to cultivate with ripping to 300mm if there is a compacted layer. Use mulch (75-100mm deep) to stop weeds and limit moisture loss, and tree guards to protect emerging plants from browsing wildlife. If dispersive subsoils are likely (see page 36), seek the advice of a suitably qualified person, such as a soil scientist with revegetation experience.

Note: If rainfall is low, revegetation may require irrigation for germination and to sustain plant growth. If the plants are slow growing, other erosion controls will need to be maintained until the vegetation is established and able to bind the soil sufficiently to prevent erosion.



Maintaining the controls:

The main reason for failure of revegetation is lack of maintenance, especially when plants are young and less resilient. Regularly monitor and maintain site revegetation, including watering, mowing, weeding, replacing any lost topsoil (from rain or wind), resowing grass, protecting from grazing, and replacing any dead plants.

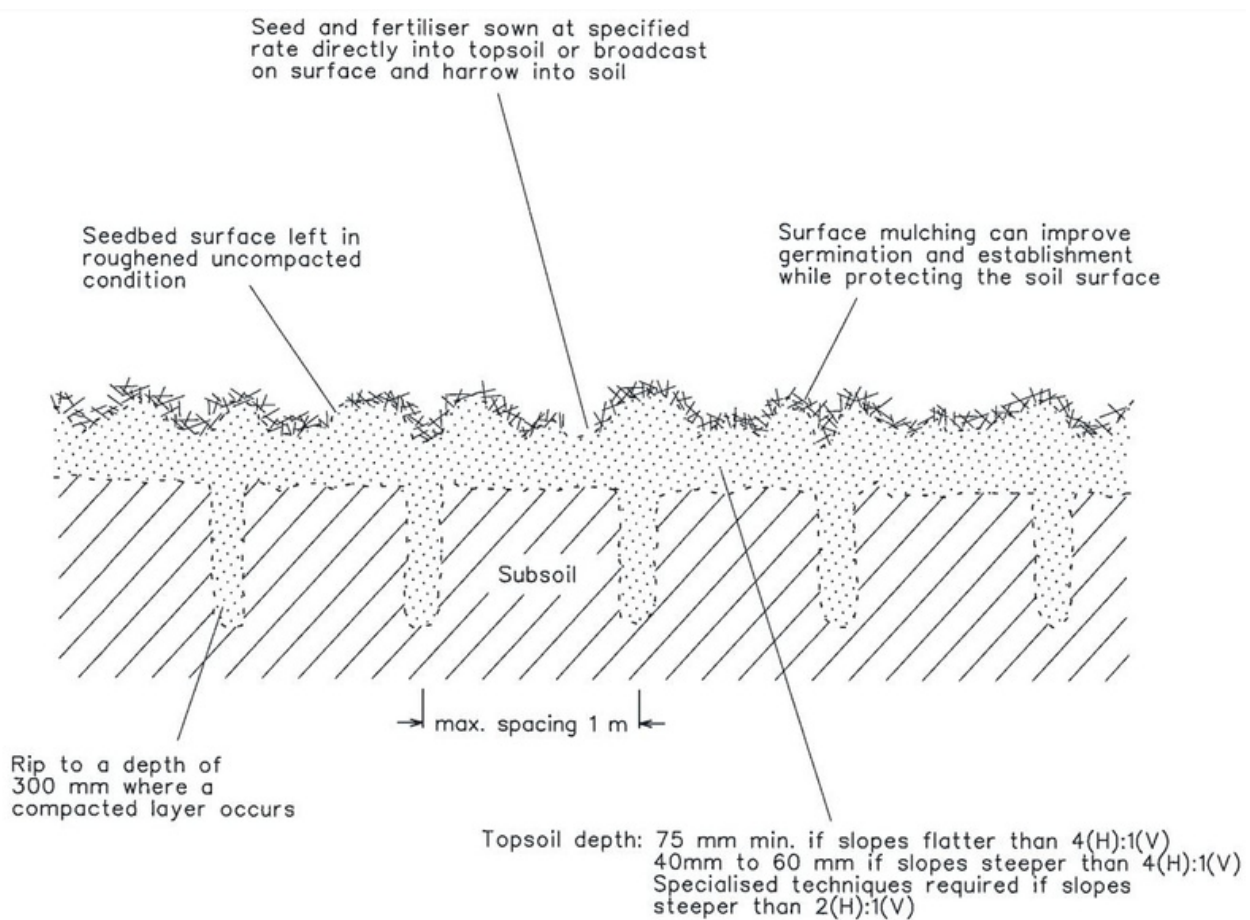


Figure 13: If revegetating with seed, surface roughening, ripping, fertilizing, mulching, and watering will assist in successful establishment of plant cover. *Figure from Landcom 2004 'Soils & Construction Volume 1 Managing Urban Stormwater (4th edition)'.*