

Land Notes

Natural Resource Management

REHABILITATION AND REVEGETATION OF DEGRADED SITES

Rehabilitation is the treatment of a degraded or disturbed area to a pre-determined standard. It is required wherever there has been a change in the landscape which is causing soil loss. Rehabilitation may be required where there is active erosion.

Vegetation is the best defence that can be provided to protect the soil against erosion, however, the factors that caused the problem must be treated first. A combination of erosion control works and revegetation will have the most chance of success in preventing further erosion.

Rehabilitation must be carried out at least to the extent where no further soil loss is occurring, in other words, the area must be stabilised.

Areas that are actively eroding should be treated before considering areas that may look unsightly, but are stable. For example, a gully may be unsightly, but not eroding. Freshly deposited sediment on the other hand, may not look severe, but is an indication of active erosion that should be treated as a priority.

The cost of rehabilitation can be reduced if stabilisation works are carried out as soon as possible. If areas are left bare for any length of time, erosion will increase.

One way to avoid this situation is to include the rehabilitation of disused sites when planning new works, for example, if a new section of road is being constructed, the rehabilitation of the old one should be included in the same contract.

Prevention is always better than cure.

Revegetation should be carried out in areas that have been depleted of plant cover. These may include

- Areas of heavy vehicle pressure.
- Construction sites.
- roadside drains and road batters.
- disused sites.

If the damage is minimal, removal of the cause of degradation may result in quick recovery.

However in more extreme cases revegetation will not occur naturally. In these cases native grass species may be required to control erosion.

Techniques used for revegetation will vary. They may involve drainage control, ground preparation, seeding, fertilising, mulching, irrigation, protection and management.

DRAINAGE CONTROL

The cause of erosion must first be removed prior to revegetation. This may involve surface reshaping, construction of diversion banks upslope, or the construction of drains to divert excess water.

Advisory and Regulatory Services
Natural Resource Management
Balancing Conservation and Development



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GROUND PREPARATION

In degraded areas the ground is often compacted and, in some cases, the topsoil may have been completely removed. Therefore the area should be ripped to create a suitable seed bed. Ripping of the soil should generally be carried out across the slope, not directly up and down slope.

Where topsoil is being imported the ground should still be ripped to ensure the top soil will remain. Topsoil should be spread to a depth of around 10cm, ensuring that soil containing any seed is on the surface.

SEEDING

Seeding may not be necessary if the area has been respread with topsoil containing seeds. However sowing may be necessary to obtain adequate ground cover. Seed can be purchased, however native grass seed can also be collected from surrounding areas.

NATIVE PLANTS

Native shrubs and trees can be established by planting seed or tube stock. Select plants that are commonly found within your area.

MULCHING

Mulch helps to retain soil moisture and keeps the soil at an even temperature, assisting vegetation to establish. It also helps to prevent erosion. Mulch hay must be weed free to prevent the introduction or spread of weeds.

IRRIGATION

If water is available, irrigation will aid establishment and development. The type of irrigation installed should promote efficient water use.

FENCING

While vegetation is establishing some areas may require fencing to prevent grazing by native or feral animals. In other areas, appropriate signs and temporary fencing may be sufficient. Areas undergoing revegetation will need protection from fire with appropriate firebreaks.

MANAGEMENT

If an area is being returned to native vegetation, then maintenance will involve regular monitoring to ensure that:

- plants are establishing,
- drainage control works are functioning
- Firebreaks are maintained,
- Weeds are not establishing.

Example – Ground shaping



Example – Full coverage of ripping



For further information about controlling erosion in the southern region of the NT contact Advisory and Regulatory Services or visit our website

www.nreta.nt.gov.au/advis/land/soils.htm



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