## **MANAGEMENT GUIDELINES**

There are considerable variations in standards of land management which can substantially effect stability, particularly in areas with high erosion risk. Similarly, techniques of earthwork construction and follow-up treatment can vary considerably with possible significant or drastic effect upon stability where these are inadequate or inappropriate.

The guidelines in the table outline the kind and levels of management considered necessary to guard against unacceptable land deterioration within each erosion risk map unit.

## Land Management Guidelines

CLASS	EROSION RISK	MANAGEMENT GUIDELINES
1	None to very slight	Generally no specific conservative management practices are required in the land class, except along drainage lines where erosion may occur.
		To minimize the danger of erosion in drainage lines, avoid disturbance and maintain a protective vegetative cover.
		Roads which cross drainage lines where high flows are likely should be designed with adequate culvert capacity or alter natively low profile floodway fords. Crossings should be as near as practical at right angles to the flow to minimize cost and erosion potential.
		To avoid problems with spillways when sitting farm dams in drainage lines with carry large flows, off-stream storages are recommended.
2	Slight	Generally only limited special management inputs are required in this land class prevent soil erosion, except along drainage lines erosion is likely to occur.
		To minimize the danger of erosion in drainage lines, avoid disturbance and maintain a protective vegetative cover.
		Roads which cross drainage lines where high flows are likely, should be designed as for class 1 above. In addition, roads should be aligned close to contour and have adequate surface and/or subsurface cross drainage or be aligned with drainage water dispersed laterally.
		Disturbed areas caused during construction works should be revegetated by topsoiling and sowing.
		To avoid problems with spillways when siting farm dams in drainage lines which carry large flows, off-stream storages are recommended.
		Planning for fence locations should take account of significant topographical features so that it is possible to conform to the criteria above.
3	Moderate	Specialised land management techniques are required to minimize soil erosion. Moreover, localized areas of severe risk occur in which intensive development of any kind should be avoided.
		To minimize the danger of erosion in drainage lines, avoid disturbance and maintain a protective vegetative cover.

Employ contour cultivation or minimum tillage techniques for cropping and contour cultivation for pasture establishment.

Locate roads and fences on contour, along ridges or directly up and down slope. Disperse water from roads at frequent intervals by surface or subsurface drainage. Design roads as recommended under Unit 1 above.

Take care to minimize disturbed area construction and undertake adequate soil for re-spreading after construction. Revegetation of these areas may require special treatment as well as sowing and adequate maintenance.

All dams constructed in this land class require careful siting, design and construction techniques.

Generally a vigorous vegetative ground cover should be maintained throughout this unit. Existing timbered areas should remain and reafforestation should be encouraged in the more hazardous areas. Subdivision into areas of small lots could cause increased erosion unless carefully planned, and due consideration is given topographical features. Planning of fence locations should also take into account these features so that it is possible to conform to the above criteria.

It is recommended that:- Advice on the need for specialized design and construction techniques and followup management should be sought from the SCA prior to approval of any development

4 High

High inputs of specialized land management techniques are required to minimize soil erosion and/or landslides. Localised areas of severe risk occur in which any development should be avoided.

Employ contour cultivation or aerial seed for pasture establishment. Specialised management techniques for grazing are required. Cropping is not advisable. SCA advice should be sought.

A vigorous vegetative ground cover should be maintained throughout this unit. Prevention of further forest clearing is very desirable and reafforestation should be encouraged.

All earthworks, including dam construction, roading and other construction works, should employ conservative specifications suitable for each site and include topsoil saving, rapid revegetation, and other soil stabilization measures and maintenance.

Limited subdivision may be possible with careful planning and due consideration to topographical features.

SCA advice should be sought at the earliest planning stage.

Planning of fence locations should take into account topographical features to avoid stock concentration in hazardous areas. SCA advice should be sought.

It is recommended that:-

All proposals for development of land in land class 4 be referred to the SCA for specific advice on soil conservation requirements at the earliest possible stage.

Intensive small-lot subdivision and clearing should be discouraged, and reafforestation should be encouraged.

## 5 Severe

Any land disturbance will require extremely high levels of specialized management input to minimize soil erosion and/or landslides. Intensive development of any kind is undesirable and should be avoided.

Cultivation is inadvisable. Pastures should be sown by aerial seeding only and maintained as a vigorous ground cover.

Grazing should be strictly controlled and consultation with the SCA on grazing management is high recommended.

Clearing of timber should be prohibited unless for timber harvesting and then should be strictly controlled and the area reafforested immediately after. Reafforestation of existing cleared areas should be actively encouraged.

Earthworks of any kind should be discouraged except for emergency or fire protection purposes. In these instances strict attention to design specifications according to SCA requirement should be mandatory.

Subdivision should be discouraged. However, isolated areas may be suitable for limited development. Such areas would require detailed terrain evaluation due to the severe risks involved.

Planning of fence locations should take into account topographical features to minimize erosion by stock trafficking, SCA advice should be sought.

## It is recommended that:-

Subdivision of land in this land class should not be permitted unless the developer can demonstrate to the satisfaction of the SCA that the development will not cause increased soil erosion or land deterioration.

Permanent clearing of land should be prohibited and reafforestation actively encouraged.

In general the area should be regarded as being best used of forest reserves and passive recreations