

step

6

DETERMINING TOTAL SOIL DEPTH

Conducted in the paddock

In this step you will identify Land Class 6:

Land Class 6: Land suitable for grazing or farm forestry. Low capability to resist land disturbance such as cultivation due to physical features of the land and erosion risk. Good management required to preserve vegetative cover.

You will need:

Property plan

Overlay 2

Overlay 1

Red permanent marker

Refer to the non-arable areas you outlined on Overlay 2.

In this step you will class the moderate and gentle slopes using total soil depth as a factor. For this exercise the moderate and gentle slopes are treated separately.

Moderate slopes (labelled 'mod' on Overlay 1)

On moderate slopes, soils less than one metre deep are non-arable due to a high water erosion risk associated with cropping.

It is important that any other type of land use on the moderate slopes be managed to maintain a vegetative cover year round to protect the soil from erosion.



Figure 11 Moderate slopes with deep soil are arable.

Gentle slopes (areas left blank on Overlay 1)

Plants prefer deep soils giving them a large volume of soil for roots to access water and nutrients. On gentle slopes where the water erosion hazard is not as high as on moderate slopes, soil depth is associated with plant water stress. Therefore, the soil depth that becomes limiting is less than 60 cm.



Figure 12 The poor pasture growth on the gentle slope in the foreground is an indication that the soils are shallow and unsuitable for cropping. The soils are deeper on the slopes in the background and cropping can occur.

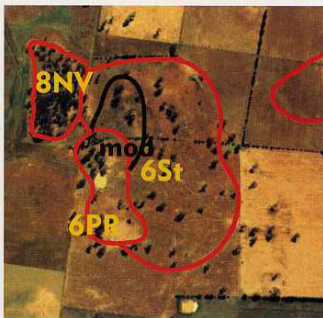


Figure 13 Overlay 1 shows that rock outcrop and surface stone override the moderate slope in the centre of the plan.

Step 6: Soil Depth

Assess the depth of soil by either digging a hole, or use existing knowledge, e.g. post holes, dams, road side cuttings close by (make sure they are in the same position in the landscape that you are assessing).

1. Refer to the slope classes you outlined on Overlay 1. Some of the slope classes may already be labelled with rock outcrop or surface stone being the limitation.

2. Refer to the appropriate slope class:

Moderate slope

On the plan, mark out the boundary and label with the appropriate land class code the following areas using the red marker:

Moderate slopes with soils less one metre deep (shallow soil) - **6mSS**

Moderate slopes with soils deeper than one metre (deep soil)

- Continue

Gentle slope

On the plan, mark out the boundary and label with the appropriate land class code the following areas using the red marker:

Gentle slopes with soils less than 60 cm (2 feet) deep (shallow soil)

- **6gSS**

Gentle slopes with soils deeper than 60 cm (2 feet) deep (deep soil)

- Continue

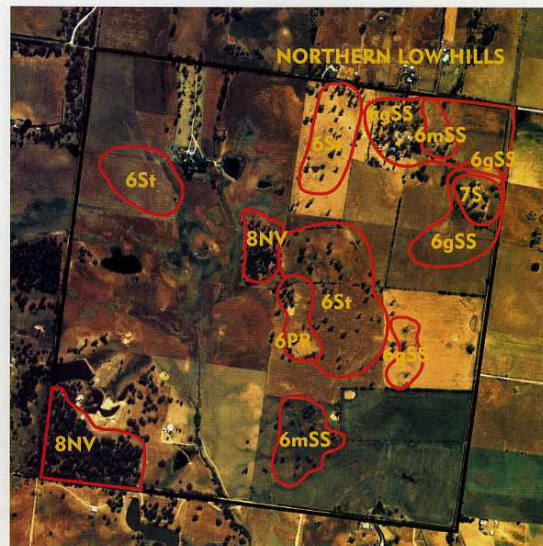


Figure 14 Step 6: Labelling and marking out the shallow soils on the plan.