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Land Capability Assessment for the Wellington-Blackwood Survey

Peter J. Tille

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Disclaimer

The contents of this report were based on the best available information at the time of publication. It is based in part on various assumptions and predictions. Conditions may change over time and conclusions should be interpreted in the light of the latest information available.

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Introduction

This report has been produced to provide more detail on the land capability assessments presented in the *Wellington-Blackwood Land Resources Survey* (Tille 1996). In that report, the land capability of each of the soil-landscape subsystems has been summarised with a brief description. Capability ratings are provided here for each of the map units (including subsystem phases) which appear on the two map sheets (Tille *et al.* 1996) accompanying the *Wellington-Blackwood Land Resources Survey*.

Capability has been assessed using the methodology described by van Gool and Moore (in prep) and is presented separately to allow for revision and updating which may be needed to cater for new land uses, new technology, changing land management practices or the availability of new data. This report also details the unmapped land units which can be used as a basis for more detailed mapping and capability analysis of land within the survey area.

Land capability ratings

The land capability ratings presented are taken from the five-class system described by Wells and King (1989). Ratings range from Class I, which has a very high capability for the proposed land use, to Class V, which has a very low capability (see **Table 1** below).

Table 1. The five-class land capability rating system.

Capability class	General description	Degree of limitation
I	Very high capability for proposed activity or use. Very few physical limitations present which are easily overcome. Risk of degradation is negligible.	None to very slight
II	High capability. Some physical limitations affecting either productive land use or risk of land degradation. Limitations overcome by careful planning.	Slight
III	Fair capability. Moderate physical limitations significantly affecting productive land use or risk of land degradation. Careful planning and conservation measures required.	Moderate
IV	Low capability. High degree of physical limitations not easily overcome by standard development techniques and/or resulting in a high risk of land degradation. Extensive conservation requirements.	High
V	Very low capability. Severity of physical limitations is such that its use is usually prohibitive in terms of either development costs or the associated risk of land degradation.	Severe

Agricultural land uses

Land capability assessment for five agricultural uses is presented in **Table 2**.

- **Grazing** covers the grazing of sheep and cattle on annual based pastures.
- **Cropping** covers the production of non-irrigated, broadscale cereal and legume crops and involves mechanised cultivation.
- **Market gardening** covers the production of irrigated vegetable crops in summer and winter and involves mechanised cultivation.
- **Orchards/vineyards** covers the production of apples, citrus, stonefruit, table and wine grapes from irrigated trees and vines.
- **Blue gums** covers the production of pulp wood or saw logs from on-farm plantings of *Eucalyptus globulus*. (These ratings are most subject to change as more data concerning tree performance in the south-west becomes available.)

In **Table 2** the five classes have been compressed into three categories to make the data easier to comprehend. Classes I and II (very high and high capability) have been combined, as have Classes IV and V (low and very low capability).

The units mapped are not homogeneous; each unit containing a suite of soils and varying topography. As a result capability within the map unit varies. An estimate of the percentage area falling into each of the three categories is presented for each soil-landscape subsystem and subsystem phase. For example, in the Bidella Subsystem approximately 20% of the area has a high or very high capability for grazing, 55% with a fair capability and 25% with a low or very low capability. These estimates are rounded to the closest 5%.

Housing on small rural lots

Limitations for rural residential development are presented in **Table 3**. For each map unit a rounded estimate of the percentage area with minor, moderate and major limitations is given for the construction of houses and roads, as well as the installation and operation of **septic tanks**. Each of the moderate and major limitations for a map unit is represented by a single letter code. The key to these nine limitation codes is given at the bottom of each page opening. For example, approximately 20% of the Bidella Subsystem has major limitations for septic tanks. These are summarised as 'afxc' which decodes as soil absorption ability (a), flood risk (f), ease of excavation (x) and foundation soundness (c). Each limitation may apply to all or part of the 20% of the subsystem. The limitations are presented in order of importance and as defined by van Gool and Moore (in prep), except for soil absorption ability and foundation soundness which are as defined by Wells and King (1989).

Land units

Some variability is present within the mapping units presented by Tille *et al.* (1996). The subsystems and phases can be divided into **land units**, which are areas with relatively homogeneous soil, slope and drainage. For any given inputs and management, different occurrences of the land unit can be expected to have both similar production potential and degradation risks. Land units can be used for more intensive mapping, e.g. preparing farm plans at scales of 1:5,000 to 1:10,000. They are also highly suitable for the application of land capability ratings. Each land unit can usually be found in a number of different subsystems and may even be distributed across more than one system or zone. The 46 land units identified in this survey are listed and described in **Appendix 1**.

The capability of each land unit was assessed using land qualities and ratings as described by van Gool and Moore (in prep). A list of 17 land qualities was drawn up, each having a range of possible values. Every land unit was assigned a value for each land quality. For example the wet upland flats land unit has a moderate water erosion hazard, moderate waterlogging, high moisture availability and low nutrient availability. Capability ratings for each land unit are presented in **Appendix 2**. For each map unit an estimate of the relative distribution of each of the land units is presented in **Appendix 3**.

Table 2. Agricultural capability ratings for each map unit.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/vineyards	Blue gums
BD	I & II	20%	5%	5%	30%	25%
	III	55%	55%	65%	50%	55%
	IV & IV	25%	40%	30%	20%	20%
BE	I & II	60%	20%	30%*	40%*	50%
	III	30%	55%	45%*	45%*	25%
	IV & IV	10%	25%	25%	15%	25%
BK2	I & II	25%	5%	5%	40%	40%
	III	55%	65%	75%	55%	50%
	IV & IV	20%	30%	20%	5%	10%
BK3	I & II	20%	5%	5%	25%	25%
	III	65%	40%	45%	50%	60%
	IV & IV	15%	55%	50%	25%	15%
BK4	I & II	5%	5%	5%	10%	10%
	III	70%	10%	10%	10%	70%
	IV & IV	25%	85%	85%	80%	20%
BL3	I & II	70%	5%	5%	15%	25%
	III	20%	35%	35%	55%	10%
	IV & IV	10%	60%	60%	30%	65%
BL4	I & II	35%	5%	5%	5%	10%
	III	45%	5%	5%	25%	5%
	IV & IV	20%	90%	90%	70%	85%
BL5	I & II	15%	0%	0%	5%	5%
	III	20%	5%	5%	15%	5%
	IV & IV	65%	95%	95%	80%	90%
BLf	I & II	90%	25%	25%	55%	55%
	III	5%	60%	60%	40%	5%
	IV & IV	5%	15%	15%	5%	40%
BLr	I & II	15%	0%	0%	5%	5%
	III	15%	5%	5%	15%	5%
	IV & IV	70%	95%	95%	80%	90%
BLu	I & II	70%	5%	5%	20%	35%
	III	25%	35%	35%	50%	15%
	IV & IV	5%	60%	60%	30%	50%
BN	I & II	25%	5%	15%	35%	40%
	III	50%	70%	75%	55%	45%
	IV & IV	25%	25%	10%	10%	15%
BO	I & II	40%	5%	5%	25%	25%
	III	40%	55%	55%	60%	40%
	IV & IV	20%	40%	40%	15%	35%
BOd	I & II	40%	5%	5%	25%	30%
	III	40%	45%	50%	65%	40%
	IV & IV	20%	50%	45%	10%	30%
BOu	I & II	35%	5%	5%	25%	25%
	III	40%	60%	65%	55%	40%
	IV & IV	25%	35%	30%	20%	35%

* Although soils are suitable, availability of water supplies for irrigation is a likely limitation.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/vineyards	Blue gums
BR	I & II	55%	5%	5%*	20%*	25%
	III	25%	50%	50%*	50%*	25%
	IV & IV	20%	45%	45%	30%	50%
BT3	I & II	65%	5%	5%	10%	20%
	III	30%	20%	20%	55%	5%
	IV & IV	5%	75%	75%	35%	75%
BT5	I & II	15%	0%	0%	5%	5%
	III	20%	5%	5%	15%	5%
	IV & IV	65%	95%	95%	80%	90%
BTf	I & II	90%	15%	15%	35%	55%
	III	5%	40%	45%	55%	5%
	IV & IV	5%	45%	40%	10%	40%
BTr	I & II	10%	0%	0%	5%	5%
	III	15%	5%	5%	10%	5%
	IV & IV	75%	95%	90%	85%	90%
BTu	I & II	70%	5%	5%	15%	30%
	III	25%	30%	30%	55%	5%
	IV & IV	5%	65%	65%	30%	65%
CC	I & II	60%	5%	5%	25%	40%
	III	25%	40%	45%	50%	15%
	IV & IV	15%	55%	50%	25%	45%
CE	I & II	10%	5%	5%	15%	30%
	III	70%	30%	40%	30%	60%
	IV & IV	20%	65%	55%	55%	10%
CF	I & II	15%	5%	5%	10%	20%
	III	60%	25%	25%	20%	60%
	IV & IV	25%	70%	70%	70%	20%
CI	I & II	20%	5%	15%*	30%*	30%
	III	50%	60%	65%*	55%*	50%
	IV & IV	30%	35%	20%	15%	20%
CL	I & II	45%	5%	10%*	25%*	45%
	III	40%	55%	50%*	45%*	40%
	IV & IV	15%	40%	40%	30%	15%
CP	I & II	75%	75%	75%*	75%*	75%
	III	10%	5%	5%*	5%*	15%
	IV & IV	15%	20%	20%	20%	10%
DB3	I & II	40%	5%	5%	30%	35%
	III	50%	45%	50%	50%	35%
	IV & IV	10%	50%	45%	20%	30%
DB4	I & II	20%	5%	5%	10%	15%
	III	65%	10%	15%	20%	45%
	IV & IV	15%	85%	80%	70%	40%
DM	I & II	75%	20%	25%*	35%*	40%
	III	15%	45%	40%*	55%*	15%
	IV & IV	10%	35%	35%	10%	45%

* Although soils are suitable, availability of water supplies for irrigation is a likely limitation.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/vineyards	Blue gums
DMg	I & II	80%	5%	5%*	10%*	10%
	III	10%	50%	50%*	80%*	10%
	IV & IV	10%	45%	45%	10%	80%
DMi	I & II	60%	25%	30%*	40%*	50%
	III	25%	45%	45%*	45%*	25%
	IV & IV	15%	30%	25%	15%	25%
DMs	I & II	40%	10%	15%*	30%*	30%
	III	45%	50%	55%*	60%*	40%
	IV & IV	15%	40%	30%	10%	30%
DP	I & II	70%	70%	70%*	70%*	70%
	III	15%	5%	5%*	5%*	15%
	IV & IV	15%	25%	25%	25%	15%
DS3	I & II	70%	5%	5%	15%	25%
	III	15%	30%	30%	60%	5%
	IV & IV	15%	65%	65%	25%	70%
DS4	I & II	35%	5%	5%	10%	10%
	III	45%	15%	15%	25%	5%
	IV & IV	20%	80%	80%	65%	85%
DSf	I & II	90%	25%	25%	50%	60%
	III	5%	55%	55%	40%	5%
	IV & IV	5%	20%	20%	10%	35%
DW	I & II	55%	15%	20%*	30%*	45%
	III	30%	55%	55%*	55%*	30%
	IV & IV	15%	30%	25%	15%	25%
DWg	I & II	80%	5%	10%*	10%*	15%
	III	10%	65%	65%*	75%*	10%
	IV & IV	10%	30%	25%	15%	75%
DWi	I & II	60%	20%	30%*	40%*	50%
	III	30%	55%	45%*	45%*	25%
	IV & IV	10%	25%	25%	15%	25%
DWr	I & II	40%	5%	5%*	5%*	5%
	III	10%	45%	45%*	40%*	10%
	IV & IV	50%	50%	50%	55%	85%
DWs	I & II	30%	10%	15%*	35%*	40%
	III	50%	55%	65%*	60%*	45%
	IV & IV	20%	35%	20%	5%	15%
GA	I & II	35%	10%	20%	30%	30%
	III	45%	70%	65%	55%	40%
	IV & IV	20%	20%	15%	15%	30%
GR	I & II	70%	5%	5%	15%	30%
	III	20%	30%	30%	55%	15%
	IV & IV	10%	65%	65%	30%	55%
GRr	I & II	30%	0%	0%	0%	0%
	III	20%	10%	10%	30%	10%
	IV & IV	50%	90%	90%	70%	90%

* Although soils are suitable, availability of water supplies for irrigation is a likely limitation.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/vineyards	Blue gums
GW	I & II	10%	0%	0%	0%	5%
	III	10%	5%	5%*	5%*	15%
	IV & IV	80%	95%	95%	95%	80%
HL	I & II	10%	0%	0%*	0%	5%
	III	10%	5%	5%*	10%	5%
	IV & IV	80%	95%	95%	90%	90%
HR	I & II	65%	15%	20%*	30%*	35%
	III	25%	55%	55%*	65%*	25%
	IV & IV	10%	30%	25%	5%	40%
HRg	I & II	80%	5%	5%*	10%*	15%
	III	10%	50%	50%*	80%*	10%
	IV & IV	10%	45%	45%	10%	75%
HRi	I & II	55%	25%	35%*	50%*	50%
	III	30%	45%	40%*	40%*	30%
	IV & IV	15%	30%	25%	10%	20%
HRs	I & II	35%	10%	15%*	35%*	40%
	III	50%	55%	60%*	60%*	45%
	IV & IV	15%	35%	25%	5%	15%
HS	I & II	5%	0%	0%	0%	5%
	III	5%	5%	5%*	5%*	5%
	IV & IV	90%	95%	95%	95%	90%
JL	I & II	30%	5%	10%	25%	30%
	III	60%	50%	50%	55%	55%
	IV & IV	10%	45%	40%	20%	15%
KI	I & II	30%	10%	20%*	30%*	35%
	III	45%	55%	55%*	50%*	45%
	IV & IV	25%	35%	25%	20%	20%
KR2	I & II	35%	5%	10%	35%	30%
	III	50%	80%	80%	60%	45%
	IV & IV	15%	15%	10%	5%	25%
KR3	I & II	40%	5%	5%	15%	20%
	III	50%	40%	45%	60%	50%
	IV & IV	10%	55%	50%	25%	30%
KRs	I & II	20%	0%	5%	40%	40%
	III	50%	60%	85%	55%	50%
	IV & IV	30%	40%	10%	5%	10%
KUi	I & II	45%	5%	5%*	10%*	40%
	III	40%	50%	50%*	45%*	40%
	IV & IV	15%	45%	45%	45%	20%
KUw	I & II	5%	5%	5%*	5%*	5%
	III	45%	10%	10%*	5%*	45%
	IV & IV	50%	85%	85%	90%	50%
LK	I & II	50%	5%	5%*	15%*	25%
	III	25%	30%	30%*	45%*	15%
	IV & IV	25%	65%	65%	40%	60%

* Although soils are suitable, availability of water supplies for irrigation is a likely limitation.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/ vineyards	Blue gums
Lkd	I & II	50%	5%	5%*	15%*	20%
	III	30%	35%	35%*	40%*	15%
	IV & IV	20%	60%	60%	45%	65%
LKk	I & II	40%	5%	5%*	20%*	20%
	III	25%	45%	45%*	40%*	25%
	IV & IV	35%	50%	50%	40%	55%
LKr	I & II	50%	5%	5%*	5%*	10%
	III	15%	15%	15%*	50%*	10%
	IV & IV	35%	80%	80%	45%	80%
LKu	I & II	50%	5%	5%*	30%*	30%
	III	15%	50%	55%*	40%*	15%
	IV & IV	35%	45%	40%	30%	55%
LY	I & II	5%	5%	5%	10%	10%
	III	20%	15%	25%	15%	20%
	IV & IV	75%	80%	70%	75%	70%
MH	I & II	50%	10%	15%*	35%*	35%
	III	35%	45%	45%*	50%*	35%
	IV & IV	15%	45%	40%	15%	30%
MHg	I & II	60%	5%	5%*	10%*	15%
	III	30%	40%	40%*	60%*	15%
	IV & IV	10%	55%	55%	30%	70%
MHi	I & II	50%	10%	20%*	30%*	35%
	III	40%	45%	45%*	50%*	35%
	IV & IV	10%	45%	35%	20%	30%
MHs	I & II	20%	5%	10%*	30%*	30%
	III	60%	50%	55%*	50%*	55%
	IV & IV	20%	45%	35%	20%	15%
MLd	I & II	75%	70%	70%	75%	75%
	III	10%	5%	5%	5%	10%
	IV & IV	15%	25%	25%	20%	15%
MLu	I & II	35%	30%	30%	35%	35%
	III	45%	5%	5%	5%	45%
	IV & IV	20%	65%	65%	60%	20%
MP	I & II	55%	25%	30%*	45%*	55%
	III	25%	35%	45%*	35%*	20%
	IV & IV	20%	40%	25%	20%	25%
MT	I & II	60%	10%	15%*	35%*	45%
	III	30%	45%	45%*	45%*	25%
	IV & IV	10%	45%	40%	20%	30%
MU2	I & II	15%	5%	5%	30%	30%
	III	65%	65%	75%	65%	60%
	IV & IV	20%	30%	20%	5%	10%
Muf	I & II	5%	5%	10%	50%	40%
	III	70%	60%	75%	40%	60%
	IV & IV	25%	35%	15%	10%	0%

* Although soils are suitable, availability of water supplies for irrigation is a likely limitation.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/vineyards	Blue gums
NW3	I & II	80%	5%	5%*	10%*	15%
	III	10%	50%	50%*	75%*	5%
	IV & IV	10%	45%	45%	15%	80%
NW4	I & II	20%	5%	5%*	5%*	5%
	III	70%	5%	5%*	15%*	15%
	IV & IV	10%	90%	90%	80%	80%
NWf	I & II	30%	5%	10%*	15%*	15%
	III	25%	20%	25%*	25%*	25%
	IV & IV	45%	75%	65%	60%	60%
NWg	I & II	70%	5%	5%*	10%*	15%
	III	20%	35%	35%*	65%*	15%
	IV & IV	10%	60%	60%	25%	70%
NWi	I & II	75%	5%	5%*	20%*	25%
	III	15%	45%	45%*	70%*	15%
	IV & IV	10%	50%	50%	10%	60%
NWr	I & II	50%	5%	5%*	5%*	5%
	III	5%	25%	25%*	50%*	10%
	IV & IV	45%	70%	70%	45%	85%
NWs	I & II	40%	5%	5%*	10%*	15%
	III	40%	45%	60%*	75%*	45%
	IV & IV	20%	50%	35%	15%	40%
PNd	I & II	20%	5%	5%*	10%*	10%
	III	10%	20%	25%*	25%*	10%
	IV & IV	70%	75%	70%	65%	80%
PNu	I & II	50%	5%	5%*	35%*	35%
	III	15%	50%	55%*	35%*	20%
	IV & IV	35%	45%	40%	30%	45%
PR	I & II	75%	70%	70%	75%	75%
	III	15%	10%	10%	5%	10%
	IV & IV	10%	20%	20%	20%	15%
QU	I & II	35%	5%	5%*	10%*	30%
	III	35%	40%	40%*	35%*	35%
	IV & IV	30%	55%	55%	55%	35%
QUs	I & II	10%	5%	5%*	25%*	45%
	III	50%	45%	85%*	60%*	55%
	IV & IV	40%	50%	10%	15%	0%
QUv	I & II	5%	5%	5%*	5%*	5%
	III	40%	5%	10%*	10%*	55%
	IV & IV	55%	90%	85%	85%	40%
QUw	I & II	5%	5%	5%*	5%*	15%
	III	25%	20%	25%*	20%*	15%
	IV & IV	70%	75%	70%	75%	70%
QW	I & II	40%	5%	10%	40%	45%
	III	45%	60%	60%	55%	35%
	IV & IV	15%	35%	30%	5%	20%

* Although soils are suitable, availability of water supplies for irrigation is a likely limitation.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/vineyards	Blue gums
QW3	I & II	50%	5%	10%	30%	40%
	III	40%	60%	55%	65%	35%
	IV & IV	10%	35%	35%	5%	25%
QWf	I & II	20%	5%	15%	65%	65%
	III	65%	75%	85%	30%	30%
	IV & IV	15%	20%	0%	5%	5%
RO2	I & II	25%	5%	5%	50%	50%
	III	65%	80%	80%	45%	45%
	IV & IV	10%	15%	15%	5%	5%
RO3	I & II	20%	5%	5%	25%	25%
	III	65%	40%	45%	50%	60%
	IV & IV	15%	55%	50%	25%	15%
RO4	I & II	5%	5%	5%	10%	10%
	III	75%	10%	10%	10%	75%
	IV & IV	20%	85%	85%	80%	15%
SD	I & II	65%	10%	10%*	25%*	30%
	III	25%	45%	45%*	55%*	20%
	IV & IV	10%	45%	45%	20%	50%
SKd	I & II	10%	0%	5%	15%	10%
	III	35%	35%	35%	25%	35%
	IV & IV	55%	65%	60%	60%	55%
SKu	I & II	20%	0%	5%	25%	20%
	III	50%	60%	65%	45%	50%
	IV & IV	30%	40%	30%	30%	30%
SP	I & II	75%	70%	70%	70%	70%
	III	10%	5%	5%	5%	10%
	IV & IV	15%	25%	25%	25%	20%
TL	I & II	25%	5%	15%*	35%*	40%
	III	60%	60%	65%*	50%*	55%
	IV & IV	15%	35%	20%	15%	5%
WC2	I & II	35%	5%	10%	30%	30%
	III	55%	65%	65%	65%	55%
	IV & IV	10%	30%	25%	5%	15%
WCv	I & II	30%	5%	10%	30%	35%
	III	60%	50%	55%	50%	55%
	IV & IV	10%	45%	35%	20%	10%
WG	I & II	25%	5%	5%*	15%*	25%
	III	45%	35%	55%*	45%*	55%
	IV & IV	30%	60%	40%	40%	20%
WGi	I & II	65%	10%	15%*	15%*	60%
	III	25%	65%	60%*	60%*	25%
	IV & IV	10%	25%	25%	25%	15%
WGs	I & II	15%	5%	5%*	30%*	35%
	III	45%	45%	70%*	45%*	50%
	IV & IV	40%	50%	25%	25%	15%

* Although soils are suitable, availability of water supplies for irrigation is a likely limitation.

Map unit	Rating class	Agricultural land use				
		Grazing	Cropping	Market gardens	Orchards/vineyards	Blue gums
WGw	I & II	10%	5%	5%	15%	20%
	III	55%	25%	30%	15%	45%
	IV & IV	35%	70%	65%	70%	35%
WH	I & II	65%	5%	5%	25%	45%
	III	30%	35%	35%	50%	20%
	IV & IV	5%	60%	60%	25%	35%
WS2	I & II	55%	5%	10%	20%	30%
	III	30%	55%	50%	60%	25%
	IV & IV	15%	40%	40%	20%	45%
WSv	I & II	50%	5%	5%	15%	20%
	III	35%	35%	35%	60%	35%
	IV & IV	15%	60%	60%	25%	45%
YG	I & II	55%	5%	5%	25%	35%
	III	25%	40%	40%	50%	25%
	IV & IV	20%	55%	55%	25%	40%
YGd	I & II	60%	5%	5%	20%	30%
	III	30%	35%	35%	55%	25%
	IV & IV	10%	60%	60%	25%	45%
YGu	I & II	45%	5%	5%	30%	30%
	III	35%	55%	55%	45%	40%
	IV & IV	20%	40%	40%	25%	30%
YL	I & II	35%	10%	15%	30%	50%
	III	55%	45%	45%	30%	45%
	IV & IV	10%	45%	40%	40%	5%
YL3	I & II	50%	5%	5%	30%	45%
	III	50%	50%	50%	45%	50%
	IV & IV	0%	45%	45%	25%	5%
YLd	I & II	5%	5%	5%	15%	25%
	III	35%	30%	90%	75%	70%
	IV & IV	60%	65%	5%	10%	5%
YLf	I & II	65%	60%	60%	60%	60%
	III	30%	10%	10%	10%	30%
	IV & IV	5%	30%	30%	30%	10%
YLv	I & II	45%	5%	5%	20%	40%
	III	50%	35%	35%	50%	50%
	IV & IV	5%	60%	60%	30%	10%
YLvw	I & II	25%	5%	5%	15%	25%
	III	50%	30%	30%	25%	50%
	IV & IV	25%	65%	65%	60%	25%
YLw	I & II	10%	5%	5%	5%	30%
	III	75%	30%	30%	30%	50%
	IV & IV	15%	65%	65%	65%	20%
YN	I & II	45%	5%	5%	30%	40%
	III	35%	60%	60%	40%	35%
	IV & IV	20%	35%	35%	30%	25%

Table 3. Limitations for housing on small rural lots for each map unit.

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
BD	Minor	60%		70%	
	Moderate	25%	iex	10%	p
	Major	15%	fiexc	20%	afxc
BE	Minor	80%		65%	
	Moderate	10%	xi	20%	ap
	Major	10%	x	15%	xa
BK2	Minor	60%		80%	
	Moderate	35%	xewi	15%	p
	Major	5%	xec	5%	ax
BK3	Minor	50%		85%	
	Moderate	40%	exw	10%	p
	Major	10%	exb	5%	xa
BK4	Minor	10%		75%	
	Moderate	65%	exwb	5%	p
	Major	25%	exc	20%	xac
BL3	Minor	65%		80%	
	Moderate	25%	ebx	5%	a
	Major	10%	ebc	15%	xca
BL4	Minor	25%		70%	
	Moderate	50%	ebx	5%	a
	Major	25%	ebc	25%	xca
BL5	Minor	10%		30%	
	Moderate	20%	ebx	5%	a
	Major	70%	ebc	65%	xca
BLf	Minor	90%		85%	
	Moderate	5%	eix	5%	ap
	Major	5%	ce	10%	axc
BLr	Minor	10%		25%	
	Moderate	20%	xe	5%	a
	Major	70%	xecb	70%	xca
BLu	Minor	65%		80%	
	Moderate	25%	ebx	5%	a
	Major	10%	ecb	15%	xca
BN	Minor	55%		60%	
	Moderate	35%	w	30%	pa
	Major	10%	x	10%	x
BO	Minor	70%		80%	
	Moderate	20%	iewx	10%	p
	Major	10%	ficex	10%	facx
BOd	Minor	70%		80%	
	Moderate	20%	iewx	10%	p
	Major	10%	ficex	10%	facx

Limitations key

a - soil absorption
b - land instability hazard
c - foundation soundness

e - water erosion hazard
f - flood risk
i - site drainage

p - microbial purification ability
w - wind erosion hazard
x - ease of excavation

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
BOu	Minor	60%		70%	
	Moderate	25%	iewx	10%	p
	Major	15%	ficex	20%	facx
BR	Minor	65%		65%	
	Moderate	25%	iex	5%	ap
	Major	10%	iec	30%	axc
BT3	Minor	60%		85%	
	Moderate	30%	ebx	5%	a
	Major	10%	ebc	10%	xca
BT5	Minor	10%		30%	
	Moderate	20%	ebx	5%	a
	Major	70%	ebc	65%	xca
BTf	Minor	90%		85%	
	Moderate	5%	exi	5%	ap
	Major	5%	ce	10%	axc
BTr	Minor	5%		20%	
	Moderate	15%	xeb	5%	a
	Major	80%	xebc	75%	xca
BTu	Minor	70%		85%	
	Moderate	25%	ebx	5%	a
	Major	5%	ebc	10%	xca
CC	Minor	65%		75%	
	Moderate	20%	iex	10%	ap
	Major	15%	fiexc	15%	facx
CE	Minor	20%		15%	
	Moderate	70%	iw	30%	ap
	Major	10%	ic	55%	ac
CF	Minor	20%		10%	
	Moderate	60%	iw	20%	ap
	Major	20%	ic	70%	ac
CI	Minor	55%		60%	
	Moderate	30%	xw	25%	ap
	Major	15%	x	15%	xa
CL	Minor	60%		40%	
	Moderate	30%	iwx	30%	ap
	Major	10%	iex	30%	ax
CP	Minor	75%		75%	
	Moderate	5%	iw	5%	p
	Major	20%	fib	20%	fac
DB3	Minor	50%		80%	
	Moderate	40%	ebiwx	10%	pa
	Major	10%	ebc	10%	acx
DB4	Minor	15%		75%	
	Moderate	70%	ebiwx	10%	pa
	Major	15%	ebc	15%	acx

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
DM	Minor	85%		80%	
	Moderate	10%	x	10%	ap
	Major	5%	xe	10%	xa
DMg	Minor	85%		75%	
	Moderate	5%	x	10%	ap
	Major	10%	xce	15%	xca
DMi	Minor	75%		75%	
	Moderate	10%	x	10%	ap
	Major	15%	xe	15%	xa
DMs	Minor	70%		75%	
	Moderate	20%	wx	15%	pa
	Major	10%	xe	10%	xa
DP	Minor	70%		70%	
	Moderate	5%	iw	5%	p
	Major	25%	fib	25%	fac
DS3	Minor	70%		80%	
	Moderate	20%	ebx	5%	a
	Major	10%	ebc	15%	xca
DS4	Minor	25%		70%	
	Moderate	50%	ebx	5%	a
	Major	25%	ebc	25%	xca
DSf	Minor	90%		85%	
	Moderate	5%	eix	5%	ap
	Major	5%	ce	10%	axc
DW	Minor	75%		60%	
	Moderate	15%	x	25%	ap
	Major	10%	xe	15%	xa
DWg	Minor	85%		80%	
	Moderate	5%	x	10%	ap
	Major	10%	xce	10%	xca
DWi	Minor	80%		65%	
	Moderate	10%	x	20%	ap
	Major	10%	xe	15%	xa
DWr	Minor	45%		35%	
	Moderate	5%	x	10%	ap
	Major	50%	xce	55%	xa
DWs	Minor	65%		70%	
	Moderate	30%	wx	25%	pa
	Major	5%	xe	5%	xa
GA	Minor	70%		70%	
	Moderate	15%	w	15%	ap
	Major	15%	x	15%	x

Limitations key

a - soil absorption
 b - land instability hazard
 c - foundation soundness

e - water erosion hazard
 f - flood risk
 i - site drainage

p - microbial purification ability
 w - wind erosion hazard
 x - ease of excavation

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
GR	Minor	65%		80%	
	Moderate	25%	ebx	5%	a
	Major	10%	ebc	15%	axc
GRr	Minor	25%		45%	
	Moderate	20%	xe	5%	a
	Major	55%	xecb	50%	xca
GW	Minor	5%		5%	
	Moderate	15%	ie	5%	a
	Major	80%	fibce	90%	fac
HL	Minor	5%		15%	
	Moderate	15%	xe	5%	a
	Major	80%	xebc	80%	xca
HR	Minor	85%		80%	
	Moderate	10%	x	15%	ap
	Major	5%	xe	5%	xa
HRg	Minor	90%		80%	
	Moderate	5%	x	10%	ap
	Major	5%	xce	10%	xca
HRi	Minor	80%		80%	
	Moderate	10%	x	10%	ap
	Major	10%	xe	10%	xa
HRs	Minor	70%		80%	
	Moderate	25%	wx	15%	pa
	Major	5%	xe	5%	xa
HS	Minor	5%		5%	
	Moderate	5%	ie	5%	a
	Major	90%	fibce	90%	fac
JL	Minor	65%		85%	
	Moderate	30%	ex	10%	p
	Major	5%	efx	5%	afx
KI	Minor	65%		65%	
	Moderate	20%	x	20%	pa
	Major	15%	x	15%	xa
KR2	Minor	70%		80%	
	Moderate	25%	ewx	15%	ap
	Major	5%	ex	5%	ax
KR3	Minor	60%		85%	
	Moderate	35%	ewx	10%	ap
	Major	5%	ex	5%	ax
KRs	Minor	35%		60%	
	Moderate	65%	wex	35%	pa
	Major	0%		5%	a
KUi	Minor	50%		20%	
	Moderate	35%	ix	35%	ap
	Major	15%	ix	45%	ax

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
KUw	Minor	5%		5%	
	Moderate	45%	i	5%	ap
	Major	50%	ic	90%	axc
LK	Minor	50%		65%	
	Moderate	30%	eix	5%	ap
	Major	20%	efbicx	30%	afcx
Lkd	Minor	50%		75%	
	Moderate	35%	eix	5%	ap
	Major	15%	efbicx	20%	afcx
LKk	Minor	50%		55%	
	Moderate	30%	ie	5%	ap
	Major	20%	fiec	40%	fac
LKr	Minor	50%		60%	
	Moderate	20%	ex	5%	a
	Major	30%	exc	35%	xc
LKu	Minor	55%		60%	
	Moderate	25%	ie	10%	ap
	Major	20%	fiec	30%	fac
LY	Minor	10%		15%	
	Moderate	20%	i	10%	ap
	Major	70%	fic	75%	faxc
MH	Minor	70%		80%	
	Moderate	20%	xe	10%	ap
	Major	10%	xe	10%	xa
MHg	Minor	65%		80%	
	Moderate	25%	xe	10%	ap
	Major	10%	xce	10%	xca
MHi	Minor	70%		80%	
	Moderate	20%	xe	10%	ap
	Major	10%	xe	10%	xa
MHs	Minor	55%		80%	
	Moderate	40%	xew	15%	pa
	Major	5%	xe	5%	xa
MLd	Minor	75%		75%	
	Moderate	5%	i	5%	a
	Major	20%	fice	20%	fac
MLu	Minor	35%		35%	
	Moderate	5%	i	5%	a
	Major	60%	fice	60%	fac
MP	Minor	70%		70%	
	Moderate	15%	x	10%	a
	Major	15%	xc	20%	xac

Limitations key

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 w - wind erosion hazard
 x - ease of excavation

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
MT	Minor	70%		85%	
	Moderate	20%	xe	10%	ap
	Major	10%	xe	5%	xa
MU2	Minor	60%		80%	
	Moderate	35%	w	15%	p
	Major	5%	ex	5%	ax
MUf	Minor	25%		60%	
	Moderate	75%	wi	25%	p
	Major	0%		15%	a
NW3	Minor	80%		80%	
	Moderate	10%	exi	10%	a
	Major	10%	ebc	10%	acx
NW4	Minor	15%		80%	
	Moderate	75%	exi	5%	a
	Major	10%	ebc	15%	acx
NWf	Minor	30%		40%	
	Moderate	50%	ie	10%	ap
	Major	20%	iec	50%	ac
NWg	Minor	70%		75%	
	Moderate	25%	exi	10%	a
	Major	5%	ebc	15%	acx
NWi	Minor	80%		80%	
	Moderate	10%	exi	10%	a
	Major	10%	e	10%	acx
NWr	Minor	40%		40%	
	Moderate	10%	e	10%	a
	Major	50%	xebc	50%	xc
NWs	Minor	65%		70%	
	Moderate	30%	eiw	20%	pa
	Major	5%	e	10%	a
PNd	Minor	25%		25%	
	Moderate	20%	iex	5%	ap
	Major	55%	fiec	70%	facx
PNu	Minor	50%		60%	
	Moderate	35%	iexw	10%	ap
	Major	15%	fiec	30%	facx
PR	Minor	75%		80%	
	Moderate	5%	i	5%	a
	Major	20%	fice	15%	fac
QU	Minor	40%		20%	
	Moderate	40%	iwex	25%	ap
	Major	20%	icx	55%	acx
QUs	Minor	20%		25%	
	Moderate	75%	wie	60%	pa
	Major	5%	ic	15%	ac

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
QUv	Minor	5%		5%	
	Moderate	10%	ie	10%	ap
	Major	85%	fiec	85%	fac
QUw	Minor	20%		5%	
	Moderate	35%	ie	20%	ap
	Major	45%	ic	75%	ac
QW	Minor	65%		80%	
	Moderate	30%	ex	15%	ap
	Major	5%	ex	5%	ax
QW3	Minor	80%		80%	
	Moderate	15%	ex	15%	ap
	Major	5%	ex	5%	ax
QWf	Minor	30%		75%	
	Moderate	70%	ew	20%	pa
	Major	0%		5%	a
RO2	Minor	65%		90%	
	Moderate	35%	xewi	5%	p
	Major	0%		5%	ax
RO3	Minor	50%		85%	
	Moderate	40%	exw	10%	p
	Major	10%	exb	5%	xa
RO4	Minor	10%		80%	
	Moderate	70%	exwb	5%	p
	Major	20%	exc	15%	xac
SD	Minor	75%		90%	
	Moderate	15%	xew	5%	ap
	Major	10%	xe	5%	xa
SKd	Minor	40%		50%	
	Moderate	20%	iew	10%	pa
	Major	40%	fiec	40%	fac
SKu	Minor	60%		70%	
	Moderate	25%	iew	10%	pa
	Major	15%	fiec	20%	fac
SP	Minor	75%		75%	
	Moderate	5%	i	5%	a
	Major	20%	fice	20%	fac
TL	Minor	55%		60%	
	Moderate	40%	wx	25%	pa
	Major	5%	x	15%	ax
WC2	Minor	80%		85%	
	Moderate	15%	xe	10%	ap
	Major	5%	xe	5%	xa

Limitations key

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 w - wind erosion hazard
 x - ease of excavation

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
WCv	Minor	65%		85%	
	Moderate	30%	ex	10%	pa
	Major	5%	exf	5%	afxc
WG	Minor	30%		25%	
	Moderate	60%	iwx	35%	ap
	Major	10%	ix	40%	ax
WGi	Minor	70%		25%	
	Moderate	20%	ix	50%	ap
	Major	10%	ix	25%	ax
WGs	Minor	20%		40%	
	Moderate	65%	wi	35%	pa
	Major	15%	i	25%	a
WGw	Minor	10%		20%	
	Moderate	60%	i	15%	ap
	Major	30%	ic	65%	ac
WH	Minor	65%		80%	
	Moderate	25%	eix	5%	ap
	Major	10%	fiec	15%	facx
WS2	Minor	75%		60%	
	Moderate	10%	xe	20%	ap
	Major	15%	xe	20%	xa
WSv	Minor	65%		80%	
	Moderate	25%	ex	5%	pa
	Major	10%	exf	15%	afxc
YG	Minor	65%		70%	
	Moderate	20%	eix	10%	ap
	Major	15%	fiec	20%	afcx
YGd	Minor	65%		75%	
	Moderate	30%	eix	10%	ap
	Major	5%	fiec	15%	afcx
YGu	Minor	60%		60%	
	Moderate	25%	eix	15%	ap
	Major	15%	fiec	25%	afcx
YL	Minor	40%		35%	
	Moderate	50%	iwx	35%	ap
	Major	10%	i	30%	ax
YL3	Minor	70%		65%	
	Moderate	30%	ex	30%	ap
	Major	0%		5%	ax
YLd	Minor	15%		20%	
	Moderate	80%	wi	70%	pa
	Major	5%	x	10%	ax
YLf	Minor	60%		65%	
	Moderate	15%	ie	5%	ap
	Major	25%	fei	30%	fa

Map unit	Degree of limitation	Housing and roads		Septic tanks	
		% area	Limitations	% area	Limitations
YLv	Minor	65%		60%	
	Moderate	30%	ie	25%	ap
	Major	5%	fiec	15%	fac
YLvw	Minor	35%		35%	
	Moderate	35%	ie	20%	ap
	Major	30%	fiec	45%	fac
YLw	Minor	25%		5%	
	Moderate	55%	i	30%	p
	Major	20%	ic	65%	ac
YN	Minor	55%		65%	
	Moderate	30%	eix	5%	ap
	Major	15%	fiec	30%	afcx

Limitations key

a - soil absorption
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 c - foundation soundness

e - water erosion hazard
 f - flood risk
 i - site drainage

p - microbial purification ability
 w - wind erosion hazard
 x - ease of excavation

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Appendix 1: Land units in the survey area

The following land units were identified in the *Wellington-Blackwood Land Resources Survey* and have been used for undertaking the land capability analysis:

- Bleached sands:** Well drained rises and gentle slopes (gradients 2-10%) with pale deep sand, usually with clayey substrate at 1-2 m.
- Bog iron ore flats:** Very poorly drained valley floors with wet bog iron loam (non-saline wet soil).
- Clays:** Gentle to low slopes and ridges (gradients 2-15%) with red-brown non-cracking clay and shallow loamy duplex.
- Creeklines:** Incised channels with steep banks found along creeks and rivers.
- Deep gravels:** Well drained rises and gentle slopes (gradients 2-10%) with deep sandy gravel.
- Dolerite dykes:** Narrow strips of land on ridges and slopes formed over dolerite dykes, usually with dolerite outcrop and friable red-brown loamy earth and shallow loamy duplex.
- Gentle duplex slopes:** Moderately drained ridges and slopes (gradients 2-10%) with deep sandy duplex, deep loamy duplex, shallow loamy duplex and brown loamy earth.
- Gentle gravel slopes:** Well drained slopes (gradients 5-10%) with loamy gravel and moderately deep sandy gravel (yellow-brown) soil.
- Gentle hard gravel slopes:** Moderately drained ridges, rises and slopes (gradients 2-10%) with loamy gravel and moderately deep sandy gravel with hard clayey subsoils or hardpans.
- Gentle loamy slopes:** Well drained ridges and slopes (gradients 5-10%) with friable red-brown loamy earth, red-brown loamy gravel, brown loamy earth and deep loamy duplex soil.
- Gentle rocky loam slopes:** Well drained ridges and slopes (gradients 2-10%) with stony soil and shallow friable red-brown loamy earth, shallow brown loamy earth and scattered rocks and stones.
- Gentle sandy gravel slopes:** Well drained ridges, rises and slopes (gradients 2-10%) with moderately deep sandy gravel (pale and yellow-brown).
- Gravel ridges:** Well drained ridges and rises (gradients 2-10%) with yellow-brown loamy gravel and yellow-brown sandy gravel.
- Gravelly upland flats:** Moderately drained upland flats (gradients 2-5%) with loamy gravel (yellow-brown) and moderately deep sandy gravel.
- Hillside seeps:** Areas on hillslopes where water seepage occurs, with non-saline wet soils.
- Ironstone ridges:** Ridges and slopes (gradients 5-25%) with bare rock (ironstone duricrust) and shallow gravel.
- Landslips:** Areas of hillslopes where landslips or other forms of mass movement have occurred.
- Loamy footslopes:** Well drained footslopes (gradients 2-5%) with friable red-brown loamy earth and brown loamy earth.
- Low duplex slopes:** Moderately to well drained ridges and slopes (gradients 10-15%) with deep sandy duplex, deep loamy duplex, shallow loamy duplex and brown loamy earth.
- Low gravel slopes:** Well drained slopes (gradients 10-15%) with loamy gravel and moderately deep sandy gravel (yellow-brown).
- Low hard gravel slopes:** Well drained slopes (gradients 10-15%) with loamy gravel and moderately deep sandy gravel with hard clayey subsoil or hardpan.
- Low loamy slopes:** Well drained and slopes (gradients 10-15%) with friable red-brown loamy earth, red-brown loamy gravel, brown loamy earth and deep loamy duplex.

- Low rocky loam slopes:** Well drained slopes (gradients 10-15%) with stony soil and shallow friable red-brown loamy earth, shallow brown loamy earth and scattered rocks and stones.
- Low sandy gravel slopes:** Well drained slopes (gradients 10-15%) with moderately deep sandy gravel (pale and yellow-brown).
- Moderate clay slopes:** Well drained slopes (gradients 15-25%) with red-brown non-cracking clay and shallow loamy duplex soil.
- Moderate gravel slope:** Well drained slopes (gradients 15-25%) with loamy gravel and yellow-brown moderately deep sandy gravel.
- Moderate loamy slopes:** Well drained slopes (gradients 15-25%) with friable red-brown loamy earth, red-brown loamy gravel, brown loamy earth and deep loamy duplex soil.
- Pink clays:** Slopes (gradients 5-15%) below lateritic breakaways with acid shallow loamy duplex soil.
- Poorly drained sand flats:** Poorly drained flats (gradient <5%) with pale deep sand and brown deep sand (waterlogging 4-14 days at 10 cm).
- River flats:** Well drained alluvial flats and river terraces with brown deep sand, brown sandy earth and brown loamy earth.
- Rock outcrops:** Ridges and slopes (gradients 5-25%) with bare rock (granitic or gneissic outcrop) and some stony soil.
- Saline hillside seeps:** Areas of hillslopes where saline seepage occurs, with saline wet soils.
- Salty flats:** Very poorly drained flats, valley floors and footslopes (gradients 0-5%) with saline wet soils.
- Sands:** Well drained rises and gentle slopes (gradients 2-10%) with yellow deep sand, yellow sandy earth and deep pale sand (usually with clay at 1-2 m).
- Steep slopes:** Well drained slopes (gradients >25%) with friable red-brown loamy earth, brown loamy earth, loamy duplex, loamy gravel, stony soil and occasional sandy gravel.
- Swamps:** Very poorly drained depressions and swamps with non-saline wet soil.
- Swampy valley floors:** Very poorly drained valley floors, subject to flooding, with non-saline wet soil.
- Wet footslopes:** Poorly drained footslopes (gradients 2-10%) with grey deep sandy duplex, grey-brown sand and loam, gravel, loamy duplex and non-saline wet soil.
- Wet footslopes (salt risk):** Poorly drained footslopes (gradients 2-10%) with grey deep sandy duplex, grey-brown sand and loam, gravel, loamy duplex and wet soil and a moderate to high risk of becoming saline (saline watertable is often present at 2-5 m).
- Wet river flats:** Poorly drained alluvial flats and river terraces.
- Wet upland flats:** Poorly drained upland flats (gradients 0-2%) with grey-brown sand and loam, pale deep sand with coffee rock and non-saline wet soil.

Appendix 2. Capability ratings of the land units.

<i>Land unit</i>	<i>Grazing</i>	<i>Cropping</i>	<i>Market gardens</i>	<i>Orchards/ vineyards</i>	<i>Blue Houses gums</i>	<i>Septic tanks</i>
Bleached sands	4	4	3	3	3	3
Bog iron ore flats	4	5	5	5	5	5
Clays	1	2	2	2	3	3
Creeklines	4	5	5	5	5	5
Deep gravels	3	3	2	2	3	2
Dolerite dykes	2	4	4	3	4	4
Gentle duplex slopes	1	3	3	3	3	2
Gentle gravel slopes	1	3	3	2	1	2
Gentle hard gravel slopes	2	3	3	3	3	2
Gentle loamy slopes	1	3	3	2	1	2
Gentle rocky loam slopes	1	3	3	2	3	2
Gentle sandy gravel slopes	3	3	3	3	4	2
Gravel ridges	1	2	2	2	1	2
Gravelly upland flats	1	3	3	3	2	2
Hillside seeps	4	5	5	5	4	5
Ironstone ridges	4	5	5	5	5	4
Landslips	4	5	5	5	4	5
Loamy footslopes	1	2	2	1	1	1
Low duplex slopes	2	4	4	3	3	2
Low gravel slopes	2	4	4	3	1	2
Low hard gravel slopes	2	4	4	3	3	2
Low loamy slopes	2	4	4	3	1	2
Low rocky loam slopes	2	4	4	3	3	2
Low sandy gravel slopes	3	4	4	3	4	2
Moderate clay slopes	2	4	4	3	3	3
Moderate gravel slopes	3	4	4	4	4	3
Moderate loamy slopes	3	4	4	4	3	3
Pink clays	4	5	5	5	3	5
Poorly drained sand flats	3	3	3	3	3	2
River flats	1	2	2	2	2	3
Rock outcrops	4	5	5	5	5	5
Saline hillside seeps	5	5	5	5	5	5
Salty flats	5	5	5	5	5	5
Sands	3	3	3	2	2	3
Steep slopes	4	5	5	5	3	5
Swamps	4	5	5	5	5	5
Swampy valley floors	4	5	5	5	5	5
Wet footslopes	3	4	4	4	3	3
Wet footslopes (salt risk)	4	4	4	5	5	3
Wet river flats	3	4	4	4	3	5
Wet upland flats	3	4	4	4	3	3

Appendix 3. Correlation between map units and land units.

Map unit	Dominant land unit (>50%)	Major land units (25-50%)	Common land units (10-25%)	Minor land units (2-10%)
BD		Gentle sandy gravel slopes	Gentle gravel slopes	Bleached sands, Bog iron ore flats, Gentle hard gravel slopes, Deep gravels, Low gravel slopes, Low sandy gravel slopes, Sands, Swampy valley floors, Wet footslopes
BE			Gravel ridges, Gravelly upland flats	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Ironstone ridges, Low gravel slopes, Sands, Wet upland flats
BK2			Bleached sands, Gentle gravel slopes, Gentle sandy gravel slopes, Sands	Deep gravels, Gentle hard gravel slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes
BK3			Gentle sandy gravel slopes, Low sandy gravel slopes, Moderate gravel slopes, Sands	Bleached sands, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes
BK4	Moderate gravel slopes		Steep slopes	Bleached sands, Deep gravels, Ironstone ridges, Low gravel slopes, Low sandy gravel slopes, Sands
BL3			Moderate loamy slopes	Clays, Dolerite dykes, Gentle duplex slopes, Gentle gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Loamy footslopes, Low duplex slopes, Low loamy slopes, Low rocky loam slopes, Rock outcrops, Wet footslopes
BL4		Moderate loamy slopes	Steep slopes	Gentle duplex slopes, Landslips, Loamy footslopes, Low duplex slopes, Low gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate clay slopes, Moderate gravel slopes, Rock outcrops
BL5	Steep slopes		Moderate loamy slopes	Landslips, Low duplex slopes, Low rocky loam slopes, Moderate clay slopes, Moderate gravel slopes, Rock outcrops
BLf		Gentle loamy slopes	Gentle duplex slopes, Loamy footslopes	Clays, Gentle hard gravel slopes, Gentle rocky loam slopes, Low duplex slopes, Low loamy slopes, Low rocky loam slopes, Rock outcrops, Sands, Wet footslopes
BLr		Steep slopes	Moderate loamy slopes, Rock outcrops	Hillside seeps, Landslips, Low duplex slopes, Low rocky loam slopes, Moderate clay slopes, Moderate gravel slopes

Map unit	Dominant land unit (>50%)	Major land units (25-50%)	Common land units (10-25%)	Minor land units (2-10%)
BLu			Moderate loamy slopes	Clays, Dolerite dykes, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Loamy footslopes, Low duplex slopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate gravel slopes, Wet footslopes
BN			Bleached sands, Gentle sandy gravel slopes, Gravelly upland flats, Sands	Deep gravels, Gentle hard gravel slopes, Gravel ridges, Ironstone ridges
BO			Gentle gravel slopes, Gentle sandy gravel slopes	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Moderate gravel slopes, Sands, Swampy valley floors, Wet footslopes
BOd			Gentle sandy gravel slopes, Low sandy gravel slopes	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Moderate gravel slopes, Sands, Swampy valley floors, Wet footslopes
BOu			Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes	Bleached sands, Bog iron ore flats, Deep gravels, Gentle duplex slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Sands, Swampy valley floors, Wet footslopes
BR			Gentle duplex slopes, Gentle gravel slopes	Bleached sands, Clays, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravel ridges, Hillside seeps, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Saline hillside seeps, Sands, Wet footslopes, Wet footslopes (salt risk), Wet river flats
BT3		Moderate loamy slopes	Low duplex slopes, Low rocky loam slopes	Clays, Gentle duplex slopes, Gentle loamy slopes, Gentle rocky loam slopes, Loamy footslopes, Low hard gravel slopes, Low loamy slopes, Moderate clay slopes, Rock outcrops, Wet footslopes
BT5	Steep slopes		Moderate loamy slopes	Landslips, Low duplex slopes, Low rocky loam slopes, Moderate clay slopes, Moderate gravel slopes, Rock outcrops
BTf			Gentle loamy slopes, Loamy footslopes, Low loamy slopes	Clays, Gentle duplex slopes, Gentle gravel slopes, Gentle rocky loam slopes, Low duplex slopes, Low rocky loam slopes, Rock outcrops, Sands, Wet footslopes

BTr		Steep slopes	Moderate loamy slopes, Rock outcrops	Hillside seeps, Landslips, Low duplex slopes, Low rocky loam slopes, Moderate clay slopes
BTu			Moderate loamy slopes	Clays, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Loamy footslopes, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Steep slopes, Wet footslopes
CC			Gentle gravel slopes	Bleached sands, Clays, Gentle hard gravel slopes, Gentle loamy slopes, Hillside seeps, Low gravel slopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate gravel slopes, Moderate loamy slopes, Sands, Swampy valley floors, Wet footslopes
CE		Wet upland flats	Bleached sands, Sands, Swamps	Bog iron ore flats, Deep gravels, Gravel ridges, Gravelly upland flats, Ironstone ridges, Poorly drained sand flats
CF		Wet upland flats	Gravelly upland flats, Swamps	Bleached sands, Bog iron ore flats, Deep gravels, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Sands
CI			Bleached sands, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Sands	Deep gravels, Gentle hard gravel slopes, Gravel ridges, Low sandy gravel slopes, Wet upland flats
CL			Gravelly upland flats, Wet upland flats	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Low duplex slopes, Sands, Swamps
CP	River flats			Bleached sands, Creeklines, Swamps, Wet river flats
DB3			Sands	Bleached sands, Clays, Gentle duplex slopes, Gentle gravel slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Hillside seeps, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Moderate gravel slopes, Moderate loamy slopes, Wet footslopes
DB4		Moderate gravel slopes	Moderate loamy slopes	Bleached sands, Clays, Hillside seeps, Landslips, Low gravel slopes, Low sandy gravel slopes, Moderate clay slopes, Sands, Steep slopes
DM			Gentle duplex slopes, Gravel ridges, Low duplex slopes	Bleached sands, Clays, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Pink clays, Sands

Map unit	Dominant land unit (>50%)	Major land units (25-50%)	Common land units (10-25%)	Minor land units (2-10%)
DMg			Gentle duplex slopes, Low duplex slopes	Clays, Dolerite dykes, Gentle hard gravel slopes, Gentle rocky loam slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Low hard gravel slopes, Low rocky loam slopes, Rock outcrops
DMi			Gravel ridges	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Pink clays, Sands, Wet upland flats
DMs			Gentle sandy gravel slopes, Low sandy gravel slopes	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low gravel slopes, Pink clays, Rock outcrop, Sands
DP	River flats			Creeklines, Swamps, Wet footslopes, Wet river flats
DS3			Low duplex slopes, Moderate loamy slopes	Clays, Dolerite dykes, Gentle duplex slopes, Gentle loamy slopes, Gentle rocky loam slopes, Loamy footslopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate clay slopes, Rock outcrops, Steep slopes, Wet footslopes
DS4		Moderate loamy slopes	Steep slopes	Gentle duplex slopes, Gentle loamy slopes, Gentle rocky loam slopes, Landslips, Loamy footslopes, Low duplex slopes, Low loamy slopes, Moderate clay slopes, Moderate gravel slopes, Rock outcrops
DSf			Gentle duplex slopes, Gentle loamy slopes, Loamy footslopes	Clays, Gentle gravel slopes, Gentle hard gravel slopes, Gentle rocky loam slopes, Low duplex slopes, Low gravel slopes, Low loamy slopes, Low rocky loam slopes, Rock outcrops, Sands, Wet footslopes
DW			Gentle sandy gravel slopes, Gravel ridges, Gravelly upland flats	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Sands, Wet upland flats
DWg		Gentle duplex slopes		Clays, Deep gravels, Gentle rocky loam slopes, Gentle sandy gravel slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low rocky loam slopes, Low sandy gravel slopes, Rock outcrops, Sands

DWi			Gravel ridges, Gravelly upland flats	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Sands, Wet upland flats
DWr		Rock outcrops	Gentle duplex slopes	Bleached sands, Clays, Deep gravels, Gentle hard gravel slopes, Gentle rocky loam slopes, Gentle sandy gravel slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Sands
DWs			Bleached sands, Gentle sandy gravel slopes, Low sandy gravel slopes, Sands	Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Low duplex slopes
GA			Gentle sandy gravel slopes, Ironstone ridges	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gravel ridges, Gravelly upland flats, Sands
GR			Moderate loamy slopes,	Clays, Dolerite dykes, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Loamy footslopes, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate clay slopes, Moderate gravel slopes, Steep slopes, Wet footslopes
GRr		Rock outcrops	Moderate loamy slopes	Dolerite dykes, Gentle duplex slopes, Gentle hard gravel slopes, Gentle rocky loam slopes, Hillside seeps, Low duplex slopes, Low hard gravel slopes, Low rocky loam slopes, Moderate gravel slopes, Steep slopes
GW		Salty flats, Swampy valley floors	Wet footslopes	Creeklines, Gentle duplex slopes, Loamy footslopes, Wet footslopes (salt risk)
HL		Rock outcrops, Steep slopes		Low rocky loam slopes, Moderate clay slopes, Moderate loamy slopes
HR			Gravel ridges	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low rocky loam slopes, Sands
HRg			Gentle duplex slopes, Gentle rocky loam slopes, Low duplex slopes, Low rocky loam slopes	Clays, Deep gravels, Gentle hard gravel slopes, Gentle loamy slopes, Gravel ridges, Gravelly upland flats, Low hard gravel slopes, Low loamy slopes, Low sandy gravel slopes, Rock outcrops, Sands

Map unit	Dominant land unit (>50%)	Major land units (25-50%)	Common land units (10-25%)	Minor land units (2-10%)
HRI			Gravel ridges	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Sands, Wet Upland flats
HRs			Gentle sandy gravel slopes, Low sandy gravel slopes, Sands	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low gravel slopes
HS		Salty flats, Swampy valley floors		Bog iron ore flats, Clays, Creeklines, Loamy footslopes, Wet footslopes (salt risk)
JL			Gentle sandy gravel slopes, Low sandy gravel slopes, Sands	Bleached sands, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Moderate gravel slopes, River flats
KI			Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges	Bleached sands, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Gravel ridges, Low gravel slopes, Low sandy gravel slopes, Sands, Wet upland flats
KR2			Gentle gravel slopes, Gentle sandy gravel slopes, Sands	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Ironstone ridges, Low gravel slopes, Low sandy gravel slopes
KR3			Gentle sandy gravel slopes, Low sandy gravel slopes, Moderate gravel slopes	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Moderate loamy slopes, Sands, Wet footslopes
KRs		Bleached sands, Sands		Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Low sandy gravel slopes, Wet footslopes
KUi		Gravelly upland flats, Wet upland flats		Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Salty flats, Sands, Swamps
KUw		Swamps, Wet upland flats		Bleached sands, Bog iron ore flats, Gravelly upland flats, Salty flats, Sands, Swampy valley floors
LK			Gentle gravel slopes, Low gravel slopes	Bleached sands, Gentle duplex slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Low duplex slopes, Low hard gravel slopes, Low loamy slopes, Low sandy gravel slopes, Moderate gravel

				slopes, Moderate loamy slopes, Pink clays, Salty flats, Sands, Swampy valley floors, Wet footslopes, Wet footslopes (salt risk)
Lkd			Moderate loamy slopes	Bleached sands, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam, Loamy footslopes, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low loamy slopes, Moderate clay slopes, Moderate gravel slopes, Pink clays, Rock outcrops, Salty flats, Sands, Swampy valley floors, Wet footslopes (salt risk)
LKk			Gentle gravel slopes, Wet footslopes (salt risk)	Bleached sands, Gentle duplex slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Hillside seeps, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Saline hillside seeps, Salty flats, Sands, Swampy valley floors, Wet footslopes
LKr			Low duplex slopes, Rock outcrops	Clays, Gentle duplex slopes, Gentle hard gravel slopes, Low gravel slopes, Low hard gravel slopes, Low rocky loam slopes, Moderate gravel slopes, Moderate loamy slopes, Salty flats
LKu			Gentle gravel slopes, Gentle hard gravel slopes	Bleached sands, Gentle duplex slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Loamy footslopes, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Pink clays, Salty flats, Sands, Swampy valley floors, Wet footslopes, Wet footslopes (salt risk)
LY		Swamps	Swampy valley floors	Bleached sands, Bog iron ore flats, Gentle gravel slopes, Gentle sandy gravel slopes, Sands, Wet footslopes
MH			Gentle gravel slopes, Low gravel slopes	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Low hard gravel slopes, Low sandy gravel slopes, Moderate gravel slopes, Moderate loamy slopes, Sands
MHg			Gentle duplex slopes, Low duplex slopes, Moderate loamy slopes	Clays, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Gentle rocky loam slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Low hard gravel slopes, Low rocky loam slopes, Moderate clay slopes, Moderate gravel slopes, Rock outcrops, Sands
MHi			Gravel ridges, Gentle gravel slopes	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Moderate gravel slopes, Moderate loamy slopes, Sands

Map unit	Dominant land unit (>50%)	Major land units (25-50%)	Common land units (10-25%)	Minor land units (2-10%)
MHs			Bleached sands, Gentle sandy gravel slopes, Low sandy gravel slopes, Sands	Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Moderate gravel slopes, Moderate loamy slopes
MLd	River flats			Creeklines, Gentle loamy slopes, Loamy footslopes, Swamps, Wet footslopes, Wet river flats
MLu		Wet river flats	River flats	Creeklines, Gentle loamy slopes, Loamy footslopes, Swamps, Wet footslopes
MP			Gravel ridges, Ironstone ridges	Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Low duplex slopes, Low gravel slopes, Low hard gravel, Sands
MT			Gentle gravel slopes, Moderate gravel slopes	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle duplex slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Sands
MU2		Gentle sandy gravel slopes	Bleached sands, Sands	Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Wet footslopes
MUf		Bleached sands, Sands	Wet upland flats	Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Wet footslopes
NW3			Gentle duplex slopes, Gentle hard gravel slopes, Low duplex slopes	Clays, Gentle gravel slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Loamy footslopes, Low gravel slopes, Low hard gravel slopes, Low rocky loam slopes, Moderate clay slopes, Moderate loamy slopes, River flats, Wet footslopes (salt risk)
NW4	Moderate loamy slopes		Moderate gravel slopes	Clays, Landslips, Loamy footslopes, Low duplex slopes, Low rocky loam slopes, Moderate clay slopes, Steep slopes, Wet footslopes (salt risk)
NWf			Wet footslopes, Wet footslopes (salt risk)	Bleached sands, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Hillside seeps, Loamy footslopes, Low duplex slopes, Moderate gravel slopes, Moderate loamy slopes, River flats, Saline hillside seeps, Salty flats, Sands, Swampy valley floors

NWg			Gentle duplex slopes, Low duplex slopes	Clays, Dolerite dykes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Loamy footslopes, Low gravel slopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate clay slopes, Moderate gravel slopes, Moderate loamy slopes, Wet footslopes (salt risk)
NWi			Gentle duplex slopes	Clays, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Gravel ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Moderate clay slopes, Moderate loamy slopes, River flats, Wet footslopes (salt risk)
NWr		Rock outcrops	Gentle duplex slopes	Clays, Dolerite dykes, Gentle rocky loam slopes, Landslips, Low duplex slopes, Low rocky loam slopes, Moderate clay slopes, Moderate loamy slopes, Steep slopes
NWs			Bleached sands, Gentle duplex slopes, Gentle sandy gravel slopes, Low duplex slopes	Gentle gravel slopes, Gentle hard gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Sands, Wet footslopes, Wet footslopes (salt risk)
PNd		Salty flats	Swampy valley floors	Bleached sands, Bog iron ore flats, Clays, Creeklines, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Loamy footslopes, Sands, Wet footslopes, Wet footslopes (salt risk)
PNu			Gentle gravel slopes, Wet footslopes (salt risk)	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Low gravel slopes, Low hard gravel slopes, Salty flats, Sands, Swampy valley floors, Wet footslopes
PR	River flats			Creeklines, Gentle gravel slopes, Gentle sandy gravel slopes, Sands, Swamps, Wet river flats
QU		Wet upland flats	Gravelly upland flats	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Salty flats, Sands, Swamps, Wet footslopes (salt risk)
QUs		Bleached sands	Sands, Wet upland flats	Gravelly upland flats, Poorly drained sand flats, Swamps
QUv		Salty flats, Wet river flats	Bleached sands	Bog iron ore flats, Creeklines
QUw			Poorly drained sand flats, Salty flats, Swamps, Wet footslopes (salt risk)	Bleached sands, Bog iron ore flats, Clays, Sands, Swampy valley floors, Wet upland flats

Map unit	Dominant land unit (>50%)	Major land units (25-50%)	Common land units (10-25%)	Minor land units (2-10%)
QW			Sands	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes
QW3			Gentle gravel slopes, Low sandy gravel slopes	Bleached sands, Deep gravels, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Moderate gravel slopes, Sands
QWf		Sands	Bleached sands	Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravelly upland flats, Loamy footslopes, River flats, Wet footslopes
RO2		Sands	Gentle gravel slopes, Gentle sandy gravel slopes	Bleached sands, Deep gravels, Gentle hard gravel slopes, Low gravel slopes, Low sandy gravel slopes
RO3			Gentle sandy gravel slopes, Low sandy gravel slopes, Moderate gravel slopes, Sands	Bleached sands, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes
RO4	Moderate gravel slopes			Bleached sands, Deep gravels, Ironstone ridges, Low gravel slopes, Low sandy gravel slopes, Sands, Steep slopes
SD			Gentle gravel slopes, Gentle hard gravel slopes	Clays, Deep gravels, Gentle duplex slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Moderate gravel slopes, Moderate loamy slopes, Sands
SDi			Gentle gravel slopes, Gentle hard gravel slopes, Moderate gravel slopes	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Moderate loamy slopes, Sands
SDs			Bleached sands, Moderate gravel slopes, Sands	Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes
SKd		Swampy valley floors	Gentle sandy gravel slopes	Bleached sands, Bog iron ore flats, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Ironstone ridges, Sands, Wet footslopes

SKu			Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes	Bleached sands, Bog iron ore flats, Deep gravels, Ironstone ridges, Sands, Swampy valley floors, Wet footslopes
SP	River flats			Creeklines, Gentle gravel slopes, Loamy footslopes, Swamps, Wet footslopes, Wet river flats
TL			Bleached sands, Gentle sandy gravel slopes, Gravelly upland flats, Sands	Deep gravels, Gentle hard gravel slopes, Gravel ridges, Ironstone ridges, Low sandy gravel slopes, Wet upland flats
WC2			Gentle gravel slopes, Gentle sandy gravel slopes, Low sandy gravel slopes	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Gravelly upland flats, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Moderate gravel slopes, Sands
WCv			Gentle gravel slopes, Gentle sandy gravel slopes, Low sandy gravel slopes, Sands	Bleached sands, Deep gravels, Gentle hard gravel slopes, Ironstone ridges, Low gravel slopes, Low hard gravel slopes, Moderate gravel slopes, River flats
WG		Wet upland flats	Bleached sands, Gravelly upland flats	Clays, Deep gravels, Gentle duplex slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Sands, Swamps
WGi		Gravelly upland flats	Wet upland flats	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Sands
WGs			Bleached sands, Sands, Wet upland flats	Clays, Deep gravels, Gentle duplex slopes, Gentle sandy gravel slopes, Gravel ridges, Gravelly upland flats, Ironstone ridges, Swamps
WGw		Wet upland flats	Sands, Swamps	Bleached sands, Bog iron ore flats, Gravelly upland flats, Salty flats, Swampy valley floors
WH			Low loamy slopes	Clays, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Hillside seeps, Low gravel slopes, Low hard gravel slopes, Low rocky loam slopes, Low sandy gravel slopes, Moderate gravel slopes, Moderate loamy slopes, Sands, Swampy valley floors, Wet footslopes
WS2			Gravelly upland flats, Ironstone ridges	Bleached sands, Deep gravels, Gentle duplex slopes, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Sands, Wet upland flats

Map unit	Dominant land unit (>50%)	Major land units (25-50%)	Common land units (10-25%)	Minor land units (2-10%)
WSv			Gentle hard gravel slopes, Low hard gravel slopes	Bleached sands, Clays, Deep gravels, Gentle gravel slopes, Gentle loamy slopes, Gentle sandy gravel slopes, Hillside seeps, Ironstone ridges, Low gravel slopes, Low loamy slopes, Low rocky loam slopes, Low sandy gravel slopes, Moderate clay slopes, Moderate gravel slopes, Moderate loamy slopes, River flats, Sands, Swampy valley floors
YG			Gentle gravel slopes	Bleached sands, Clays, Deep gravels, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Gentle sandy gravel slopes, Hillside seeps, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate gravel slopes, Moderate loamy slopes, Sands, Swampy valley floors, Wet footslopes
YGd			Moderate gravel slopes	Bleached sands, Clays, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Gentle loamy slopes, Gentle rocky loam slopes, Hillside seeps, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low loamy slopes, Low rocky loam slopes, Moderate loamy slopes, Rock outcrops, Sands, Swampy valley floors, Wet footslopes
YGu			Gentle gravel slopes, Wet footslopes	Bleached sands, Clays, Deep gravels, Gentle duplex slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, Sands, Swampy valley floors
YL			Gravelly upland flats, Sands, Wet upland flats	Bleached sands, Deep gravels, Gentle gravel slopes, Gentle sandy gravel slopes, Gravel ridges, Ironstone ridges, Swamps
YL3			Gentle duplex slopes, Gentle gravel slopes, Gentle sandy gravel slopes	Bleached sands, Deep gravels, Gentle hard gravel slopes, Gravel ridges, Gravelly upland flats, Low duplex slopes, Low gravel slopes, Low sandy gravel slopes, Sands, Wet footslopes, Wet upland flats
YLd	Bleached sands		Sands	Gentle sandy gravel slopes, Ironstone ridges, Poorly drained sand flats, Wet upland flats
YLf	River flats		Wet river flats	Bleached sands, Creeklines, Gentle sandy gravel slopes, Low gravel slopes, Sands, Swamps, Swampy valley floors, Wet footslopes
YLv			Gentle gravel slopes, Gentle duplex slopes, Gentle sandy gravel slopes	Bleached sands, Creeklines, Deep gravels, Gentle hard gravel slopes, Low duplex slopes, Low gravel slopes, Low hard gravel slopes, Low sandy gravel slopes, River flats, Sands, Wet footslopes, Wet river flats

YLvw			Gentle duplex slopes, Swampy valley floors, Wet footslopes	Bleached sands, Creeklines, Deep gravels, Gentle gravel slopes, Gentle hard gravel slopes, Gentle sandy gravel slopes, Low duplex slopes, Low gravel slopes, Sands, Wet river flats
YLw		Wet upland flats	Poorly drained sand flats, Swamps	Bleached sands, Bog iron ore flats, Gravelly upland flats
YN			Gentle gravel slopes, Wet footslopes	Bleached sands, Bog iron ore flats, Deep gravels, Gentle hard gravel slopes, Gentle sandy gravel slopes, Gentle duplex slopes, Low gravel slopes, Low sandy gravel slopes, Sands, Swampy valley floors