## **GLOSSARY**

alluvium: material which is transported and deposited by running water.

apedal: soil which does not occur in the form of peds in the slightly moist to moist

state.

arable layer: layer of soil which can readily be cultivated.

basalt: fine—grained basic igneous rock.

batter: sloping earthern surface produced when excavations or embankments are

made.

bleached horizon: layer of soil which is white or almost so when dry; can be defined in terms

of Munsell Soil Colour Charts.

boulder: rock fragment greater than 25 cm in diameter.

clay: soil particles of less than 0.002 mm diameter; also a soil texture class.

colour (soil): the appearance of soil, defined in terms of hue, value and chroma using

Munsell Soil Colour Chart.

dispersion: tendency of a soil to break down into individual particles, resulting in a

single grained structure.

duplex soil: soil profile, dominated by the mineral fraction and showing increasingly

finer (more clayey) texture grades on passing down the solum.

erosion: the detachment and movement of soil particles from the land surface by

wind, water, gravity or ice.

escarpment: the steeper slopes between a plateau and the lower surrounding

landscape.

geology: the study of the earth's crust; geological features of an area.

gradational soil: soil profile, dominated by the mineral fraction with small, if any, textural

differences throughout.

gravel: rock fragment of 2 mm to 25 mm diameter.

hard-setting: soil which is compact, hard and apparently apedal upon periodic drying

out.

horizon: soil layer within the soil profile having morphological characteristics and

properties different from those layers above and below it.

in situ: in place, soil which is situated close to its weathering parent material.

land feature.

with land quality, land characteristic in any aspect of the topography or

(synonymous this report): solum, or property of the landscape dictated by them.

landform: a discernible natural landscape, e.g. flood plain, plateau.

landscape: all the natural features that distinguish one part of the earth's surface from

another part.

landslip: the failure of a slope in which the movement of the soil mass takes place

along an interior surface of sliding.

liquid limit: the moisture content at which soil passes from the plastic to the liquid

state.

load bearing capacity: the ability of a soil to resist deformation when subjected to load.

map unit: areas of land which are uniform with respect to the most important land

features or characteristics for the uses of interest; constituent areas of land

are not necessarily contiguous.

massive: soil which appears as a coherent mass, devoid of peds.

mottles: masses or blotches of a subdominant colour in the soil, usually an

indication of the aeration and drainage status of the soil.

Ordovician: relating to the period of time extending from 500 million years to 435 million

years before present time.

parent material: unconsolidated, chemically weathered mineral or organic matter from

which the solum of soils has developed.

ped: an individual, natural soil aggregate.

pH: a numerical measure of the acidity of the soil; a pH of 7 is neutral, less than

7 acidic and greater than 7 alkaline.

plain: a relatively level and flat area of land.

plasticity index: the range of moisture content during which a soil will remain in the plastic

state.

plateau: a plain, at greater altitude than the surrounding landscape.

profile drainage (synonymous a measure of the ease with which water will move down through the soil

with soil drainage):

well drained:

Descriptive terms used in this study are:

the soil is rarely saturated to a depth of 1 m except during or just after

profile. Drainage may be impeded by a single impermeable layer.

heavy rain.

moderately well drained: this soil is rarely saturated for longer than a month at a depth of 60 cm.

imperfectly drained: the soil is saturated for up to 4 months shallower than 60 cm, but is rarely

saturated above 30 cm during the growing season.

poorly drained: the soil is saturated for at least half the year at less than 60 cm and the

upper 30 cm is not saturated for longer than one month after heavy rain.

very poorly drained: the soil remains saturated at less than 30 cm during much of the growing

season.

Quaternary: relating to the period of time from 2 million years before present to now.

row crop: crop planted in row, normally to allow cultivation for weed control.

sand: soil particle of 0.02 mm to 2 mm diameter; also a soil texture class.

scoria: highly vesicular volcanic rock.

sedimentary rock: rock which consists of particles of older rocks which have been released by

the process of weathering.

shrink-swell potential: susceptibility of a soil to change in volume due to loss or gain of moisture.

silt: soil particles of 0.002 mm to 0.02 diameter; a soil texture class.

slaking: the tendency of a soil aggregate to break down into smaller aggregates on

wetting.

soil drainage: see profile drainage.

stereo photo interpretation: the identification of land imaged on stereo pairs of aerial photographs.

stones: rock fragments of 75 mm to 25 cm diameter.

structure: the combination and arrangement of primary soil particles into secondary

particles or peds.

subgrade: soil prepared and compacted to support a structure or pavement system.

texture: the relative proportions of soil particles (sand, silt and clay) as described by

various classes.

topsoil: the darker uppermost layer of a soil profile

Unified Soil Classification: a classification system based on the identification of soils according to their

particle size, gradation, plasticity index and liquid limit; used to group soils

with similar engineering properties.

volcanic cone: more or less discrete hill rising from a plain, which has developed from a

volcano.

water table: that level of soil, below which the soil is saturated; may be perched

(saturated soil overlying a relatively impermeable unsaturated layer),

seasonal or permanent (groundwater table).

Descriptive terms for seasonal water table used in this study are:

nil: water table drops below 1 m within 24 hours after heavy rain.

temporarily ponded: local areas of minor ponding persist for several days after rain - little

inhibition of plant growth.

temporarily waterlogged: water table perches on an impermeable soil layer causing waterlogging

which may persist for a week or so after heavy rain.

seasonally waterlogged: water table within the pasture root zone for about one month after heavy

rain. Plant growth may be inhibited to some extent.

seasonally at surface: water at soil surface for several months during winter; plant growth may be

moderately to severely inhibited.