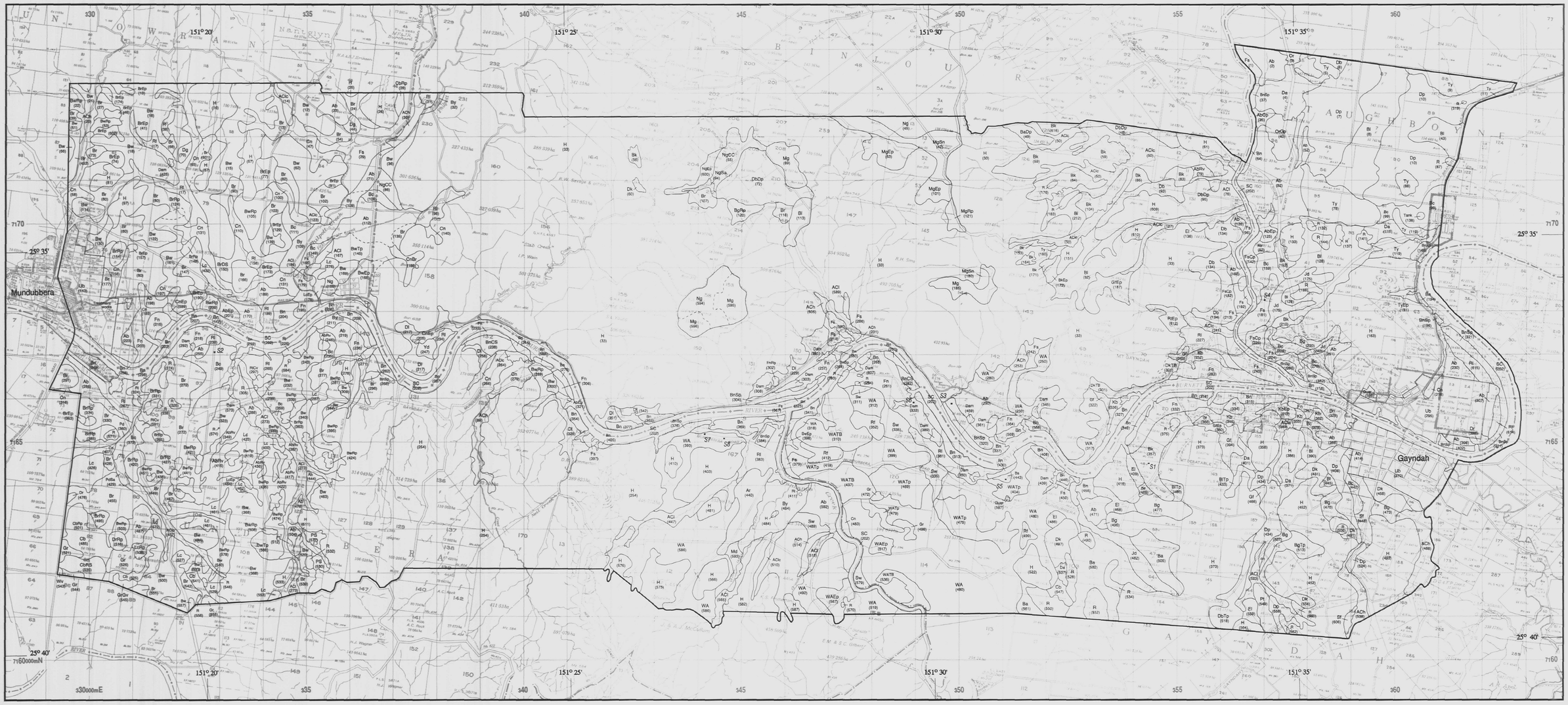

REFERENCE

	Mapping Unit	Description of Dominant Soil[1]	Area (ha)
SOILS FORMED IN RECENT ALLUVIA			
Recent alluvia associated mainly with smaller to medium sized creeks and drainage lines.			
ACh	Alluvial complex - higher	A complex of soils on terraces and interfluves: cracking clay soils, red gradational soils, duplex soils, and sands deposited on clay soils. Individual soils can not readily be mapped.	218
ACl	Alluvial complex - lower	A complex of soils in drainage depressions or stream beds, channel benches and low terraces or interfluves: gradational soils, duplex soils, sands, non-cracking clay soils; and cracking clay soils from mapping unit ACIc. Individual soils can not readily be mapped.	390
ACIc	Alluvial complex - lower, cracking clays	Contiguous areas of undifferentiated cracking clay soils in drainage depressions or streambeds, channel benches and low terraces and interfluves.	529
Sf	Stratfield	Moderately shallow to deep grey, brown or dark sandy clay loam to light clay, layered alluvial soil.	50
Pt	Platter	Very deep dark to greyish brown to brown non-cracking and cracking clay soil.	38
Md	Madoora	Deep sandy soils with red or reddish brown subsoil.	30
Pd	Panda	Very deep cracking clay soil with sporadically bleached subsurface layer, overlaying a dark clay subsoil.	13
PdSa	Panda, saline phase	Panda soil, salinised.	13
Cn	Coonambula	Deep sodic duplex soils with shallow to very shallow topsoil, bleached subsurface layer and alkaline greyish brown to yellow clay subsoil.	474
CnEp	Coonambula, eroded phase	Coonambula soil, with sheet or gully erosion.	32
CnBr	Coonambula-Beeron	A complex of Coonambula and Beeron soils.	23
Recent alluvia associated mainly with the Burnett River and major creeks.			
Bn	Burnett	Very deep dark to brown, loamy fine sand to clay loam sandy, layered alluvial soil.	612
BnCS	Burnett, coarse sandy variant	Burnett soil with coarse sand to ≥ 1 m.	44
BnSp	Burnett, shallow phase	Burnett soil, but is moderately shallow, with clay layers in the subsoil usually by 0.6 m to 1.1 m depth.	222
Fn	Fison	Very shallow to shallow, dark to brown, fine sand to fine sandy loam soils deposited over clay.	488
FnRp	Fison, rocky phase	Fison soil, with few to many angular andesite gravels on the surface or in the profile.	3
Kb	Kinburn	Deep, sodic duplex soil with very shallow, dark to greyish brown fine sandy loam to clay loam fine sandy topsoil, bleached subsurface layer, and strongly alkaline, grey to greyish brown, mottled, clay subsoil.	106
KbEp	Kinburn, eroded phase	Kinburn soil, with sheet or gully erosion.	19
By	Boyne	Very deep gradational or duplex soils with shallow, brown sandy loam to clay loam topsoil and structured red subsoil.	239
Fs	Flagstone	Very deep, dark to brown structured clay loam or clay soil.	427
FsCp	Flagstone, channelly phase	Flagstone soil, with smooth-sided channels 1 to 3 m deep.	59
Rl	Riverleigh	Very deep sodic duplex soil with very shallow to shallow dark to brown fine sandy clay loam topsoil, bleached subsurface layer and alkaline, dark to brown clay subsoil.	578
RlCv	Riverleigh, clayey variant	Riverleigh soil, with clay topsoil.	15
RlEp	Riverleigh, eroded phase	Riverleigh soil with sheet or gully erosion.	29
SOILS FORMED IN RELICT ALLUVIA			
Relict alluvial plains.			
Ab	Auburn	Very deep sodic duplex soil with very shallow grey to brown, sandy clay loam topsoil, bleached subsurface layer, and alkaline grey to yellowish brown to brown clay subsoil.	1156
AbRv	Auburn, red subsoil variant	Auburn soil, but with reddish brown to red clay subsoil below 0.6 m to 1.3 m.	67
AbCp	Auburn, channelly phase	Auburn soil, with smooth sided channels > 1 m deep, near streams.	13
AbEp	Auburn, eroded phase	Auburn soil, with sheet or gully erosion.	44
Bc	Bonnie Crofts	Very deep, dark to dark grey cracking clay soil with nil to slight normal gilgai; poplar-box forests.	381
Or	Overrun	Very deep, dark grey cracking clay soil; ironbark woodland.	9
OrGp	Overrun, gilgaied phase	Overrun soil with linear gilgai 0.05 m deep.	53
Dg	Durong	Very deep dark to grey to brown cracking clay soil with normal gilgai < 0.3 m deep; brigalow forest.	21
Dr	Derra	Very deep, grey to brown cracking clay soil with normal gilgai 0.4 m to 1.0 m deep; brigalow forest.	9
DrRp	Derra, rocky phase	Derra soil with abundant rounded cobbles or stones on the surface.	14
SOILS FORMED IN DEEPLY WEATHERED VERY OLD ALLUVIA (Tertiary)			
Gr	Glenrock	Deep to very deep, red, massive, sandy clay loam to clay loam soil.	79
GrGv	Glenrock, grey variant	Shallow, grey to brown, massive, sandy loam to sandy clay loam soil.	10
Cb	Chessborough	Shallow to deep, red, sandy clay loam soil over yellow to brown clay subsoil or rock.	135
CbRp	Chessborough, rocky phase	Chessborough soil with stones and boulders on the surface	13
CbRS	Chessborough, rubbly, shallow and rocky phase	Chessborough soil with many coarse gravels, ironstone nodules and rock outcrops.	41
Wv	Wivenhoe	Deep gradational soil with dark to greyish brown loam fine sandy to sand clay loam topsoil and structured yellow clay subsoil.	2
SOILS FORMED ON BASALT			
Shallow to moderately deep clay soils on uplands, and deep clay soils on lower slopes and plains.			
Bl	Balark	Moderately shallow, dark self-mulching cracking clay soil overlaying weathered basalt.	759
BlTp	Balark, steep phase	Balark soil, with slopes > 6%	33
Db	Dunbas	Moderately shallow, very dark brown to reddish brown self-mulching cracking clay soil.	187
DbTp	Dunbas, steep phase	Dunbas soil, with slopes > 6%	65
DbDp	Dunbas, deep phase	Dunbas soil, > 1.5 m deep.	213
Ba	Bray	Moderately shallow, reddish brown to red self-mulching cracking clay soil.	278
BaDp	Bray, deep phase	Bray soil, >1.5 m deep.	28
Bk	Bovekal	Deep, dark to dark brown self-mulching cracking clay soil with brown to reddish brown clay subsoil.	477
BkEp	Bovekal, eroded phase	Bovekal soil, with sheet or gully erosion	12
Deep clay soils in valley flats and drainage lines.			
Jd	Jedda	Deep, dark to grey self-mulching cracking clay soil.	151
Soils formed in or from deeply weathered basalt on plateaux or footslopes.			
Mg	Mulgildie	Moderately deep to very deep, red clay loam to light clay soil with polyhedral structure and acid subsoil.	191
MgSn	Mulgildie, snuffy variant	Mulgildie soil, with fine loose snuffy surface when dry.	121
MgRp	Mulgildie, rocky phase	Mulgildie soil, with high gravel content.	18
MgEp	Mulgildie, eroded phase	Mulgildie soil, with sheet and gully erosion.	96
Ng	Neugildie	Moderately deep to very deep, red clay loam to light clay soil with polyhedral structure and neutral subsoil.	162
NgCC	Neugildie, colluvial, clayey variant	Neugildie soil, with strong coarse structure in the clay subsoil.	93
NgEp	Neugildie, eroded phase	Neugildie soil, with sheet or gully erosion.	29
NgSa	Neugildie, salina phase	Neugildie soil, salinised.	9
SOILS FORMED FROM BOTH BASALT AND LABILE SANDSTONES			
Dp	Drape	Moderately deep to deep, dark to grey self-mulching cracking clay soil.	848
SOILS FORMED ON LITHIC LABILE AND SUBLABILE SANDSTONES OF THE GAYNDAH FORMATION			
Be	Belrose	Shallow to moderately deep, red, structured, non-cracking clay soil.	6
Da	Dargy	Shallow to moderately shallow, dark cracking clay soil.	220
Bg	Brogue	Shallow to deep, brown self-mulching cracking clay soil.	157
BgRp	Brogue, rocky phase	Brogue soil, with cobbles.	25
BgTp	Brogue, steep phase	Brogue soil, with slopes > 6%	49
Dk	Derrick	Moderately shallow duplex soil with very shallow clay loam topsoil and alkaline, red to reddish brown clay subsoil.	154
DkTB	Derrick, steep and broken phase	Derrick soil, with slopes > 6% and with gullies and channels.	41
Ty	Taughboyne	Shallow to moderately shallow sodic duplex soil with very shallow, greyish brown clay loam topsoil, usually bleached at the base; and neutral, dark to brown clay, over alkaline grey to brown clay.	325
TyEp	Taughboyne, eroded phase	Taughboyne soil, with sheet or gully erosion.	11
El	Ella	Moderately deep duplex soil with shallow dark to brown clay loam topsoil and yellow clay subsoil.	78
Gf	Greyfrill	Shallow to moderately deep sodic duplex soil with very shallow, grey, bleached topsoil and alkaline, grey clay subsoil.	73
GfEp	Greyfrill, eroded phase	Greyfrill soil with sheet or gully erosion.	67
SOILS FORMED ON OR ASSOCIATED WITH WIGTON GRANITE[2]			
Undulating rises, rolling rises and low hills.			
WA	Wigton Association	A complex of soils on undulating rises: mainly *Whiteside, Brownside* and intergrades; as well as *Red Flank, Solwig,* and *Glenrock*. The soils, apart from *Glenrock*, are described below.	2022
WATp	Wigton Association, steep phase	Wigton Association, with slopes > 8%.	311
WATB	Wigton Association, steep and broken phase	Wigton Association; with slopes > 8%, and short-spaced, steep, incised gullies.	248
WAEp	Wigton Association, eroded phase	Wigton Association, with sheet or gully erosion.	62
Ws	Whiteside	Shallow to moderately deep sodic-magnesic duplex soil with shallow, dark to brown sandy loam topsoil, bleached subsurface layer and acid, yellowish brown to grey subsoil. (Not able to be mapped separately at this scale; major component of *Wigton Association*.)	
Bs	Brownside	Moderately deep to deep, brown to light brown to reddish brown, coarse sandy soil with quartz gravel and rock debris. (Most occurs in *Wigton Association*.)	5
Rf	Red Flank	Moderately deep to deep, red, coarse loamy sand to sandy loam with bleached or pale layers below 0.9 m.	68
Sw	Solwig	Moderately deep to deep sodic duplex soil with very shallow, grey to greyish brown sand to loamy sand topsoil, bleached subsurface layer and acid, grey sandy clay loam to sandy clay subsoil.	126
SwEp	Solwig, eroded phase	Solwig soil, with sheet or gully erosion.	4
Relict fan			
Ar	Aranear	Deep sodic duplex soils with shallow, brown sandy clay loam topsoil and alkaline, yellow to brown clay subsoil.	94
SOILS FORMED ON STEEPLY-DIPPING DEVONIAN-CARBONIFEROUS SEDIMENTARY AND VOLCANIC ROCKS			
Pediments and fans below steep hills and rises.			
Dl	Dillan	Moderately deep sodic duplex soil with shallow, greyish brown loamy sand to sandy clay loam topsoil, bleached subsurface layer, and neutral to alkaline, mottled, grey to yellow clay subsoil.	216
Yd	Yondilla	Deep duplex soil with shallow, grey to brown loamy sand topsoil, bleached subsurface layer and neutral light yellowish brown sandy clay loam subsoil with columnar structure. (Deep coarse sandy soil associated.)	15
Plains and rises.			
Bw	Boynewood	Shallow to moderately deep, structured brown clay loam to light clay on weathering rock.	1844
BwTp	Boynewood, steep phase	Boynewood soils, with slopes > 6%.	127
BwRp	Boynewood, rocky phase	Boynewood soils, with gravel or cobble on the surface; or rock outcrops.	238
BwEp	Boynewood, eroded phase	Boynewood soil, with sheet or gully erosion.	60
Lc	Lacon	Shallow to deep, dark to brown cracking clay soil overlaying weathering rock.	390
LcRp	Lacon, rocky phase	Lacon soil, with gravel or cobble on the surface, or rock outcrop.	36
LcEp	Lacon, eroded phase	Lacon soil, with sheet or gully erosion.	16
Br	Beeron	Shallow to deep sodic duplex soil with very shallow grey to brown sandy clay loam topsoil, bleached subsurface layer and alkaline, greyish brown to brown to reddish brown to yellow clay subsoil overlaying weathering rock.	1557
BrDS	Beeron, deep-surface phase	Beeron soil, with surface soil ≥ 0.40 m deep.	32
BrRp	Beeron, rocky phase	Beeron soil, with gravel, cobble, stone, or rock outcrop.	117
BrEp	Beeron, eroded phase	Beeron soil, with sheet or gully erosion.	158
MISCELLANEOUS MAPPING UNITS			
H	Hilly and mountainous land	Hills, mountains and some associated pediments and fans.	14765
PS	Pedimentary soils	Undifferentiated loamy soils with ≥ 20% gravel or larger rock fragments; on pediments of hills or mountains.	22
Quar.	Quarry		9
R	Rock	Rockland, or soils with high contents of gravel, cobble, stones, or boulders.	262
Dam, Tank	Dams, Tank	Farm dams and *pondage* areas.	48
SC	Stream channels	*Stream channels and associated gullies.*	1600
Ub	Urban areas		766

NOTES

Other Symbols

(201) Number of Unique Map Area (UMA)

• S2 Soil sample sites

Soil Descriptions

More details about the soils are given in the accompanying report.

Soil Boundary Confidence Level

—— Observed boundaries

– – – Approximate or estimated location

1. Depth criteria: for soil layers and whole soils, are based on Soil Survey Staff (1951), "Soil Survey Manual", Agricultural Handbook No. 18, USDA, Washington DC, USA.

Very shallow	< 0.25m	Mod. deep	0.75 - 1.25m
Shallow	0.25 - 0.50m	Deep	1.25 - 1.50m
Mod. shallow	0.50 - 0.75m	Very deep	> 1.50m

Soil Depth Phases: *Burnett shallow phase, Bray deep phase, Dunbas deep phase* and in *Beeron deep surface phase*, the depth term indicates relative variation from the basic soil type.

Soil layers: topsoil layer corresponds to the A1 horizon
Subsurface layer corresponds to the A2 horizon
Subsoil layer corresponds to the B or D horizon

2. Rock nomenclature changed from adamellite to granite: Cranfield, L.R. (1992) (Compiler), Geological Map of Maryborough 1:250,000 Sheet Area, Queensland Department of Minerals and Energy, Brisbane.

3. Adjoining UMA's with the same mapping unit for example "Fs" next to "Fs", have been separated according to a different set of physical attribute which can effect crop or land management, for example, slope and flood heights.

DPI QUEENSLAND DEPARTMENT OF PRIMARY INDUSTRIES

MUNDUBBERA - GAYNDAH RIPARIAN LANDS IRRIGATION SUITABILITY ASSESSMENT

SOILS

SCALE 1 : 50 000

Metres 1000 0 1 2 3 4 Kilometres

Universal Transverse Mercator Projection

GREY NUMBERED GRID TICS ARE 5 000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID, ZONE 56. GRID VALUES ARE SHOWN IN FULL ONLY AT THE SOUTH WEST CORNER OF THE MAP

INTENSITY STATEMENT

This map is from a medium intensity soil survey. Its purpose is to provide information for regional planning. For intensive land use, more detailed examinations should be carried out prior to development.

LOCALITY MAP

SURVEY by Richard J Tucker and Philip Sorby, Resource Assessment and Planning, Queensland Department of Primary Industries.

CARTOGRAPHY by Sheryl F Crofts, Resource Assessment and Planning, Queensland Department of Primary Industries.

BASE MAP compiled from Queensland 1 : 25 000 cadastral map sheet series. Note that unsurveyed minor creek lines shown on the cadastral base map may not correspond to soil boundaries.

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