

Extended legend of Soil Map
of Stratford County

SB 14/1/2

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Patent Number 137841

EXTENDED LEGEND OF SOIL MAP OF STRATFORD COUNTY, NORTH ISLAND, NEW ZEALAND

SOIL REFERENCE SYMBOL	SOIL NAME	ABBREVIATED SOIL DESCRIPTION	PARENT ROCK	TOPOGRAPHY AND DISTRIBUTION	RANGE OF ELEVATION (m)	NOTES	MEAN ANNUAL RAINFALL RANGE (mm)	SOIL LIMITATION CLASSES FOR POTENTIAL USE			APPROX AREA (hectares)	SOIL REFERENCE SYMBOL
								CROPPING	PASTORAL	FORESTRY		
SOIL LIMITATIONS FOR POTENTIAL PASTORAL USE												
Classification of soils according to their limitations for potential pastoral use.												
Npl	New Plymouth brown loam (Moderately Leached)	0-13 cm	Andeitic volcanic ash (Egmont Ash)	Flat to rolling land within the dissected landscape east of Douglas.	120-700	Well drained, but including some small areas of flat, low-lying land with imperfectly drained soils which have notches in the B and C horizons. Has a high potential for food production and as far as is practicable should be kept free from urban development; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	1700-2200	1	1	1	Npl	
		30-122 cm						dark yellowish brown clay loam; greasy; firm; moderately developed coarse blocky structure; olive grey sand; many fine and medium sized nodules.				
NplH	New Plymouth hill soils	Profile are similar to those of New Plymouth brown loam but in many places they pass into sedimentary rock rather than older ash deposits.	Andeitic volcanic ash (Egmont Ash)	Moderately steep and moderately steep to steep ash-covered slopes of the dissected landscape west of Douglas.	120-700	Well drained; slip erosion can be severe; in many places profiles are transitional between those from volcanic ash and those from the underlying sedimentary rock.	1700-2200	4	4	4	NplH	
		St	Stratford coarse sandy loam	0-15 cm	Andeitic volcanic ash (Stratford Ash, over Egmont Ash)	Gently undulating to rolling land on Egmont ring plain, mainly north and south of Stratford.	270-430	Well drained; Has a high potential for food production and as far as is practicable should be kept free from urban development; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	1800-2800	2	1	1
S1	Stratford coarse sandy loam strongly rolling phase	15-30 cm	Andeitic volcanic ash (Stratford Ash, over Egmont Ash)	Strongly rolling and hummocky old lobe terrain on the Egmont ring plain, south-west of Stratford; some moderately steep to steep slopes are included.	270-430	Well drained; Has a high potential for food production and as far as is practicable should be kept free from urban development; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	2000-2400	2	1	1	S1	
		30-53 cm						dark brown loam; friable to firm; massive; many coarse firm pumice and andesite lapilli; on yellowish brown silt loam to sandy clay loam; grey; many soil bursae lapilli.				
S2	Stratford fine sandy loam	0-30 cm	Andeitic volcanic ash (Stratford Ash, over Egmont Ash)	Flat to rolling land on the Egmont ring plain, east of Stratford, and on many terraces further east.	160-300	Well drained, but including some small areas of flat, low-lying land with imperfectly drained soils which have notches in the B and C horizons. Has a high potential for food production and as far as is practicable should be kept free from urban development; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	1700-2800	1	1	1	S2	
SH	Stratford hill soils (Moderately to Strongly Leached)	30-58 cm	Andeitic volcanic ash (Stratford Ash, over Egmont Ash)	Moderately steep and moderately steep to steep ash-covered slopes of the dissected landscape between Stratford and Douglas.	180-300	Well drained; slip erosion can be severe; in many places profiles are transitional between those from volcanic ash and those from the underlying sedimentary rock.	1700-2200	4	4	4	SH	
		58-101 cm						dark yellowish brown silt loam; clay loam; firm; friable; moderately developed coarse blocky structure; many coarse firm pumice and andesite lapilli; on dark yellowish brown sandy clay loam; firm; massive.				
Iw	Ingliswood coarse sandy loam	0-20 cm	Andeitic volcanic ash (Stratford Ash, over Egmont Ash)	Gently undulating to rolling land on the Egmont ring plain, between Uia and Cardiff.	330-650	Moderately well drained to well drained; some Brunell Ash may be present in the A horizon; Has a high potential for food production and as far as is practicable should be kept free from urban development; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	2200-3800	2	1	1	Iw	
Iw1	Ingliswood coarse sandy loam, strongly rolling phase	20-40 cm	Andeitic volcanic ash (Stratford Ash, over Egmont Ash)	Strongly rolling and hummocky old lobe terrain on the Egmont ring plain, southwest of Cardiff; some moderately steep to steep slopes are included.	330-650	Moderately well drained to well drained; some Brunell Ash may be present in the A horizon.	2200-3800	3	1	1	Iw1	
		40-50 cm						dark reddish brown to dark brown sandy loam; friable; moderately developed coarse blocky structure; many coarse firm pumice and andesite lapilli; on dark yellowish brown sandy clay loam; firm; friable; moderately developed coarse blocky structure; many coarse firm pumice and andesite lapilli; on dark yellowish brown sandy clay loam; firm; massive.				
Lo	Lowgarth sandy loam	0-23 cm	Andeitic volcanic ash (unnamed ash, over Stratford Ash)	Gently undulating to rolling land on the Egmont ring plain, south-west of Cardiff.	270-460	Well drained; Has a high potential for food production and as far as is practicable should be kept free from urban development; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	1900-2500	2	1	1	Lo	
Lo1	Lowgarth sandy loam, strongly rolling phase	23-50 cm	Andeitic volcanic ash (unnamed ash, over Stratford Ash)	Strongly rolling and hummocky old lobe terrain on the Egmont ring plain, southwest of Cardiff; some moderately steep to steep slopes are included.	270-460	Well drained; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	1900-2500	2	1	1	Lo1	
		50-85 cm						dark brown sandy loam; friable; moderately developed coarse blocky structure; many coarse firm pumice and andesite lapilli; on dark brown sandy loam; greasy.				
Rc	Rowan coarse sandy loam	0-23 cm	Andeitic volcanic ash (unnamed ash, over Stratford Ash)	Gently undulating to rolling land on the Egmont ring plain, between Rowan and Paterangi Roads.	330-650	Moderately well drained to well drained; some Brunell Ash may be present in the A horizon; Has a high potential for food production and as far as is practicable should be kept free from urban development; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	2000-2800	2	1	1	Rc	
Rc1	Rowan coarse sandy loam, strongly rolling phase	23-35 cm	Andeitic volcanic ash (unnamed ash, over Stratford Ash)	Strongly rolling and hummocky old lobe terrain on the Egmont ring plain, south-west of Cardiff; some moderately steep to steep slopes are included.	330-650	Moderately well drained to well drained; some Brunell Ash may be present in the A horizon; some special measures are required (e.g. disposal of effluent) to preserve water quality and recreational value of streams traversing these soils.	2000-2800	3	1	1	Rc1	
		35-66 cm						dark reddish brown gravelly sandy loam; slightly peaty; friable; moderately developed coarse blocky structure; many coarse firm pumice and andesite lapilli; on dark brown and strong brown sandy loam; friable; moderately developed coarse blocky structure; many coarse firm pumice and andesite lapilli; on dark reddish brown coarse sand; many fine reddish brown distinct nodules; weakly developed blocky structure; many andesite and coarse firm pumice lapilli.				
Rc2	Rowan gravelly sandy loam	0-25 cm	Andeitic volcanic ash (unnamed ash, over lower debris)	Gently to strongly sloping eastern flank of Mount Egmont, mainly west of Manuka Road; some precipitous gully sides are included.	400-760	Imperfectly drained; some Brunell Ash may be present in the A horizon; included are some soils on steep and very steep gully sides; has considerable potential for recreational use but pest control measures may be necessary in order to maintain recreational value, to preserve native flora, and to prevent erosion, important as a water source area.	2600-5700	3	3	3	Rc2	
B1	Brunell gravelly sand	25-48 cm	Andeitic volcanic ash (Brunell Formation, over older ash beds)	Gently to strongly sloping eastern flank of Mount Egmont, mainly north of Manuka Road; some precipitous gully sides are included.	550-820	Moderately well drained; some Tauranga Ash may be present in the A horizon and overlie Brunell soil; included are some soils on steep and very steep gully sides; has considerable potential for recreational use but pest control measures may be necessary in order to maintain recreational value, to preserve native flora, and to prevent erosion, important as a water source area.	3800-5700	3	3	3	B1	
		48-67 cm						dark greyish brown coarse sand; many fine reddish brown distinct nodules; structureless, non-tenacious, on grey bouldery and pebbly alluvium.				
B2	Brunell mottled gravelly sand	0-13 cm	Andeitic volcanic ash (Brunell Formation, over older ash beds)	Gently to strongly sloping eastern flank of Mount Egmont, mainly north of Penrose Road.	460-760	Poorly drained; some Tauranga Ash may be present in the A horizon and overlie Brunell soil; included are some soils on steep and very steep gully sides; has considerable potential for recreational use but pest control measures may be necessary in order to maintain recreational value, to preserve native flora, and to prevent erosion, important as a water source area.	3400-6300	3	3	3	B2	
B3	Brunell gravelly sandy loam	13-26 cm	Andeitic volcanic ash (Brunell Formation, over older ash beds)	Gently to strongly sloping eastern flank of Mount Egmont, mainly between Manuka and Penrose Roads; some precipitous gully sides are included.	460-760	Moderately well drained; some Tauranga Ash may be present in the A horizon; included are some soils on steep and very steep gully sides.	2800-5700	3	2	2	B3	
		26-41 cm						dark brown to dark reddish brown gravelly sand; slightly peaty; friable to firm; few fine strong brown faint nodules; structureless; abundant very hard pumice, lapilli, and some andesite lapilli; on olive grey sand.				
B4	Brunell gravelly sandy loam	0-30 cm	Andeitic volcanic ash (Brunell Formation, over older ash beds)	Gently to strongly sloping eastern flank of Mount Egmont, mainly between Manuka and Penrose Roads; some precipitous gully sides are included.	460-760	Moderately well drained; some Tauranga Ash may be present in the A horizon; included are some soils on steep and very steep gully sides.	2800-5700	3	2	2	B4	
Tg	Tauranga fine sandy loam (Very Strongly Leached)	0-12 cm	Andeitic volcanic ash (Tauranga Formation, over Brunell Formation, etc.)	Rolling topography on the steeply sloping eastern and south-eastern flanks of Mount Egmont, west of Stratford Mountain House and Dawson Falls Lodge; some precipitous gully sides are included.	760-1100	Imperfectly drained; included are some soils on steep and very steep gully sides; snow covered for part of the year; has considerable potential for recreational use but pest control measures may be necessary in order to maintain recreational value, to preserve native flora, and to prevent erosion.	5700-7800	7	7	3	Tg	
		12-40 cm						very dark reddish brown fine sandy loam; slightly peaty; grey; friable; moderately developed coarse blocky structure; abundant fine very hard pumice lapilli and abundant andesite lapilli; on olive and dark yellowish brown gravelly sand; grey; very firm; many medium reddish brown distinct nodules.				
TgH	Tauranga hill soils	Profile are similar to those of Tauranga fine sandy loam.	Andeitic volcanic ash (Tauranga Formation, over Brunell Formation, etc.)	Moderately steep and moderately steep to steep slopes on the steeply sloping eastern and south-eastern flanks of Mount Egmont, west of Stratford Mountain House and Dawson Falls Lodge; some precipitous gully sides are included.	760-1100	Imperfectly drained; included are some soils on steep and very steep gully sides; snow covered for part of the year; has considerable potential for recreational use but pest control measures may be necessary in order to maintain recreational value, to preserve native flora, and to prevent erosion.	5700-7800	7	7	6	TgH	
AI	Ulnamed alpine steepland soils	Bare rock and scree with scattered alpine plants.	Andeitic volcanic rock and ash	Steep and very steep slopes on the very steeply sloping eastern and south-eastern flanks of Mount Egmont; some precipitous slopes are included.	1500-2619	Snow-covered for much of the year; severe erosion; used mainly for recreational purposes (skiing, climbing, tramping) but also important as a water source area.	> 7500	7	7	7	AI	
S	Ulnamed subalpine steepland soils	Very dark greyish brown sand; many pebbles; very friable; weakly developed medium crumb structure; dark greyish brown bouldery sand; structureless; on dark olive grey bouldery sand.	Andeitic volcanic rock and ash	Steep and very steep slopes on the very steeply sloping eastern and south-eastern flanks of Mount Egmont; some precipitous slopes are included.	1100-1628	Severe erosion; used mainly for recreational purposes (skiing, climbing, tramping) but also important as a water source area.	> 7500	7	7	7	S	
SOILS ARRANGED PEDOLOGICALLY												
Steepland soils related to Alpine and Subalpine soils												
Ua	Uia sandy loam	0-15 cm	Andeitic lava debris	Flat to rolling, hummocky land on the Egmont ring plain, west of Mahoe and west of Midhurst.	320-610	Imperfectly drained; bouldery in places.	3800-5700	3	2	2	Ua	
Yellow Brown Earths												
Rh	Rahotu sandy loam	0-15 cm	Andeitic alluvium of volcanic origin	Flat and flat to gently undulating land on the Egmont ring plain associated with later outwash debris, mainly west of Midhurst.	335-610	Poorly drained	2300-3100	3	2	3	Rh	
Steepland soils related to Yellow-Brown Earths												
H	Hanganahua sandy loam (Weakly Weathered)	0-20 cm	Andeitic alluvium of volcanic origin	Flat and flat to gently undulating land on some terraces of the Mangarua River.	250-350	Well drained	2300-2800	1	1	1	H	
Yellow Brown Loams												
Weakly Weathered												
Ka	Kakarangi silt loam	0-5 cm	Quartzite-feldspathic alluvium	Flat land on many valley floors, mainly north-west of Toko.	190-350	Poorly and very poorly drained	1700-2200	3	2	3	Ka	
ORGANIC SOILS												
E1	Ethan peaty loam	0-30 cm	Peat	Flat land on the edge of the Egmont ring plain, east of Ehan, Midhurst and Hanganahua.	180-300	Very poorly drained; some areas may have potential for water loaf reserves.	1600-2800	3	3	3	E1	
INTERGRADES BETWEEN YELLOW BROWN LOAM AND RECENT SOILS												
KH	Kouarua hill soils	0-15 cm	Sandy mudstone	Moderately steep and moderately steep to steep slopes, mainly north of Whanganonua and at Atutahi.	150-450	Moderately well drained; slip erosion can be severe; in many places profiles are transitional between those from mudstone and those from volcanic ash.	1700-2200	4	4	4	KH	
TS	Takoua steepland soils	15-46 cm	Sandy mudstone	Steep and very steep slopes, mainly north of Whanganonua and at Atutahi.	150-450	Well drained; slip erosion can be severe; areas suitable for recreation (tramping, hunting, scenic view); pest control measures may be necessary to prevent erosion, to preserve the indigenous flora, and for water control.	1700-2200	6	5	5	TS	
		46-100 cm						olive yellow and pale olive clay loam; friable; moderately developed nut structure; many mudstone fragments; pale yellow clay loam; abundant fragments of pale olive rubby sandy mudstone; on rubby sandy mudstone.				
TIS	Tirangi steepland soils	0-25 cm	Consolidated sandy siltstone	Steep and very steep slopes between Mtsau and Puriwhakau and at Atutahi.	150-360	Moderately well drained; slip erosion can be severe; profiles may include small amounts of volcanic ash; areas suitable for recreation (tramping, hunting, scenic view); pest control measures may be necessary to prevent erosion, to preserve the indigenous flora, and for water control.	1700-2200	6	5	5	TIS	
WgS	Whanganonua steepland soils	0-18 cm	Consolidated silty sandstone	Steep and very steep slopes, widespread distribution in the north and east of the county.	150-600	Well drained; slip erosion can be severe; profiles may include small amounts of volcanic ash; areas suitable for recreation (tramping, hunting, scenic view); pest control measures may be necessary to prevent erosion, to preserve the indigenous flora, and for water control.	1700-2200	6	6	6	WgS	
		18-36 cm						olive brown sandy loam; friable; strongly developed medium nut structure; few sandstone fragments; olive yellow to light olive brown sandy loam; friable; many sandstone fragments; on pale olive to light yellowish brown moderately consolidated silty sandstone.				
MIS	Munahuku steepland soils	0-15 cm	Strongly consolidated sandstone	Very steep and steep slopes, mainly west and south of Puriwhakau and north of Ehan; some precipitous gully sides are included.	150-700	Well drained; slip erosion can be severe; profiles may include small amounts of volcanic ash; areas suitable for recreation (tramping, hunting, scenic view); pest control measures may be necessary to prevent erosion, to preserve the indigenous flora, and for water control.	1700-2200	6	6	6	MIS	

By J.F. Atkinson, I.B. Campbell and R.H. Wilde, Soil Bureau, Department of Scientific and Industrial Research, Lower Hutt
To accompany N.Z. Soil Bureau Map 144.1/2
The distribution of soil limitations for potential pastoral use, potential pastoral use, and for potential forestry use are explained on the maps