AGRICULTURAL LAND CLASSIFICATION
BECCLES AREA LOCAL PLAN, SUFFOLK

1. BACKGROUND

1.1 The six sites surveyed, covering 105.9 ha in total, are part of the Beccles Area Local Plan. MAFF surveyed the site in October 1989 to assess the agricultural land quality.

1.2 On the published Agricultural Land Classification map sheet no 137 (provisional, scale 1:63360, (MAFF 1969)) the areas are shown as grade 3. Some of the sites were surveyed previously by MAFF in 1983. This survey showed the land to comprise grades 3a and 3b. The current survey was undertaken to provide a more detailed Agricultural Land Classification of the area.

2. PHYSICAL FACTORS AFFECTING LAND QUALITY

Climate

2.1 Climatic data for the sites is as follows:
(Met Office 1989).

	SITES					
	1	2a/b	3	4a/b	5a	Ringsfield Corner
Field Capacity Days	124	125	125	124	123	123
MD Wheat (mm)	121	120	118	118	120	117
MD Potatoes (mm)	117	116	113	113	115	112
Accumulated Temperature (°C)	1421	1415	1398	1399	1408	1400

These climatic characteristics do not impose any climatic limitation on the ALC grading of the survey site.

Altitude and Relief

2.2 The majority of the sites (Nos 3, 4a/b, 5a and Ringsfield Corner) occur on the fairly level boulder clay plateau (30m AOD) lying to the south of Beccles. In addition, site 3 is dissected by a shallow valley feature running north/south.

2.3 Site 2 lies on the gentle slopes at the northern edge of the plateau falling from 15 to 11m AOD, whilst site 1 occurs on fairly level land (10m AOD) in the River Waveney Valley.

2.3 Gradient and altitude do not constitute limitations to the ALC grade.

Geology and Soils

2.5 The published ¼" to 1 mile scale drift edition geology map sheet 16 (1931), shows the local plan area to mainly comprise a boulder clay plateau with sand and gravel deposits outcropping, to the north, at the edge of the plateau.

2.4 The Soil Survey of England and Wales have mapped the soils in the Beccles area at a reconnaissance scale of 1:250,000. This map, entitled 'The Soils of Eastern England', shows the occurrence of four associations within the survey area:- mainly the Beccles 1 Association (*1) on the plateau, with smaller areas of Newport 4 (*2), Hanslope (*3) and Mendham (*4) Associations on the mid, upper and lower slopes of the River Waveney respectively. During this survey a more detailed inspection of the soils was carried out.

(*1) Beccles 1 Association: Slowly permeable seasonally waterlogged fine loamy over clayey soils, associated with similar clayey soils.

(*2) NEWPORT 4 Association: Deep well drained sandy soils. Some very acid soils with bleached subsurface horizons especially under heath or woodland. Risk of wind erosion.

(*3) Hanslope Association: Slowly permeable calcareous clayey soils. Some slowly permeable non-calcareous clayey soils. Slight risk of water erosion.

(*4) Mendham Association: Deep peat soils associated with clayey over sandy soils, in part very acid. High groundwater levels. Risk of flooding.

Three main soil types occur over the local plan area.

2.4.1 The clayey soils occurring on the boulder clay plateau predominate. (Sites: part 2b, part 3, 4a/b, 5a and Ringsfield Corner.) The drainage of these soils is impeded (wetness class III) and typically they comprise very slightly stony, non calcareous heavy clay loam or clay topsoils over gleyed non calcareous clays which overlie gleyed chalky clays at depth. Occasionally sand lenses may be present within these soil profiles (particularly on Site 3). Variants of this soil type may occur on sites 3 and 5a where soils have been affected by runway and/or building removal.

2.4.2 Smaller areas of coarser textured soils occur in the Waveney Valley (sites: 2a, part 2b and 1). These soils typically comprise non to very slightly stony sandy loam (or occasionally loamy sand) topsoils over non or slightly stony loamy sand or occasionally sandy loam subsoils which invariably merge into sand at depth.

2.4.3 A small area of loamy soils occur in the valley feature dissecting the edge of the plateau of site 3. These soils are well drained (wetness Class I) and generally comprise very slightly stony sandy loam or occasionally sandy clay loam topsoils over sandy clay loam or sandy loam subsoils which overlie sand or loamy sand at depth.

3. AGRICULTURAL LAND CLASSIFICATION

3.1 The definitions of the Agricultural Land Classification grades are included in Appendix 1.

3.2 The table overleaf shows the ALC grades for each of the survey sites.

Site	Grade	ha	%
1	3a	1.9	95
	Agricultural Buildings	0.1	5
	TOTAL	2.0	100
2a	3b	1.1	100
	TOTAL	1.1	100
2b	3a	6.7	63
	3b	3.7	35
	Non Agricultural	0.2	2
	TOTAL	10.6	100
3	2	4.8	8
	3b	56.2	91
	Non Agricultural	0.8	1
	TOTAL	61.8	100
4a	3b	7.1	100
	TOTAL	7.1	100
4b	3b	1.4	100
	TOTAL	1.4	100
5a	3b	16.7	90
	Urban	0.9	5
	Non Agricultural	1.1	100
	TOTAL	18.7	100
Ringsfield Corner	3b	3.2	100
	TOTAL	3.2	100

3.3 SITE 1 (2 hectares)

Site 1 has been mapped as sub grade 3a. The land is associated with moderately droughty variants of the soils described in paragraph 2.4.2 above. The coarse soil textures, typical of this soil type, have a moderate limiting affect on the available water capacity of these soil profiles. As a result, the moderate droughtiness limitation excludes this land from grade 2.

3.4 SITE 2a/b (11.7 hectares)

Site 2a/b has been mapped as grades 3a and 3b.

3.4.1 On the northern half of the site, on the sand and gravel deposits, the land has been graded 3a. This land lies in association with moderately droughty variants of the soils described in paragraph 2.4.2. These coarse textured soil profiles hold moderate reserves of available water; as a result the land is restricted to grade 3a.

3.4.2 To the south on the boulder clay plateau land has been graded 3b. This land lies in association with the clayey soils described in paragraph 2.4.1. The subsoils are slowly permeable (wetness Class III) and the topsoil textures heavy (eg, heavy clay loams). These two factors combine to impose a significant limitation on the agricultural potential of this land. Thus the land is excluded from a higher grade.

3.4.3 On Site 2a significantly droughty variants of the soils described in paragraph 2.4.2 occur. These soils are coarse textured and flinty; they therefore only hold low reserves of available water. As a result of this droughtiness limitation the land is restricted to subgrade 3b.

3.5 SITE 3 (61.8 hectares)

3.5.1a The majority of the site has been graded 3b where the clayey soils referred to in paragraph 2.4.1 predominate. The subsoils are slowly permeable (wetness Class III) and topsoils comprise non calcareous heavy clay loams or clays. These two factors combine to impose a significant limitation on the agricultural potential of this land.

3.5.1b In isolated patches where land has been affected by building or runway removal these clayey soils are "mixed looking", flinty and gritty. In such areas the sporadic occurrence of large buried concrete lumps,

within the cultivation zone, act as an additional limitation to the ALC grade. This concrete has the potential to do considerable damage to the cultivation and harvesting machinery. Consequently the costs of production are likely to be increased, and flexibility in the use of the land is reduced. Thus in these areas significant drainage and disturbance limitations restrict the land to subgrade 3b.

3.5.2 In the valley feature to the north of site 3 land is graded 2 and associated with the soils described in paragraph 2.4.3. These soils hold moderately good reserves of water and are freely draining (wetness Class I). This slight droughtiness limitation restricts the land to grade 2.

3.6 SITE 4a/b (8.5 hectares)

The land comprising site 4a/b has been graded 3b and lies in association with the soils described in paragraph 2.4.1. These soils have slowly permeable subsoils (wetness Class III) and heavy topsoil textures (eg. heavy clay loams). These two factors combine to impose a significant limitation to the ALC grade.

3.7 SITE 5a (18.7 hectares)

3.7.1 The agricultural land of site 5a has been mapped as 3b. The land is associated with the clayey soils described in paragraph 2.4.1. The poor drainage (wetness Class III) and heavy topsoil textures combine to significantly limit the agricultural potential of this land.

3.7.2 In isolated patches where land has been affected by building or runway removal these clayey soils are "mixed looking", flinty and gritty. In such areas the sporadic occurrence of large buried concrete lumps, within the cultivation zone, act as an additional limitation to the ALC grade. This concrete has the potential to do considerable damage to the cultivation and harvesting machinery. Consequently the costs of production are likely to be increased, and flexibility in the use of the land is reduced. Thus in these areas significant drainage and disturbance limitations restrict the land to subgrade 3b.

3.8 RINGSFIELD CORNER (3.2 hectares)

The land at Ringsfield Corner lies on the boulder clay plateau to the south of Beccles. Soils are clayey and are described in full in

paragraph 2.4.1. The impeded drainage (wetness class III) and heavy topsoil textures combine to impose a significant limitation on the agricultural potential of this land. Thus the land is restricted to subgrade 3b.

3.9 NON AGRICULTURAL

Copses, ponds and recreational areas have been mapped as non agricultural.

3.10 URBAN

An old runway, with a commercial use, has been mapped as urban.

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Resource Planning Group
Cambridge RO

References

GEOLOGICAL SURVEY OF ENGLAND AND WALES 1931. Drift Edition Geology Map Sheet 16, Scale ¼" to 1 mile.

MAFF, 1969 Agricultural Land Classification Map Sheet No 137, Scale 1:63360.

MAFF, 1988 Agricultural Land Classification of England and Wales. (Revised guidelines and criteria for grading the quality of agricultural land), Alnwick.

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