

AGRICULTURAL LAND CLASSIFICATION

LANGBAURGH-ON-TEES LOCAL PLAN

ADAS
LEEDS REGIONAL OFFICE

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1. LANGBAURGH-ON-TEES LOCAL PLAN
AGRICULTURAL LAND CLASSIFICATION
LAND AT NEW MARSKE

1. INTRODUCTION AND SITE CHARACTERISTICS

The site is centred on National Grid Reference NZ 61402100, approximately 3 km south of Redcar. It surrounds the town of New Marske on the north, east and west and covers a total of 173 ha, of which approximately 146 ha is in agricultural use. Survey work was carried out in July 1991 when soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. Further borings were made, where necessary, to refine grade boundaries and confirm soil types.

All land quality assessments were made using the methods described in "Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

1.1 Land Use

The site is mostly in arable production, with small areas of permanent grazing, woodland, non agricultural and urban land. Cereals and oilseed rape are the main arable crops, with a small area of potatoes in the north eastern corner of the site.

1.2 Climate

Average Annual Rainfall is approximately 648 mm. Accumulated Temperature above 0°C between January and June is 1,304 day°C and the land is at field capacity for 159 days a year. There is, thus, an overall climatic limitation of Grade 2 on ALC grade. Summer moisture deficits of 100 mm for winter wheat and 88 mm for potatoes indicate a slight drought limitation on the light textured and stonier soils.

1.3 Relief

The site varies from 30 m to 82 m above Ordnance Datum. It is gently sloping in the south but flatter in the north.

1.4 Geology and Soils

Soils are formed on boulder clay which forms a thick cover over the underlying Jurassic (Lias) shales and limestones. Soils vary from sandy loam or medium clay loam topsoils over similar subsoils to medium or heavy clay loam over gleyed slowly permeable heavy clay loam or clay.

2. AGRICULTURAL LAND CLASSIFICATION GRADES

The ALC grades occurring on this site are as follows:-

Grade/Subgrade	Hectares	Percentage of Total Area
2	15.37	9
3a	32.00	18
3b	98.76	57
Urban/Agricultural Buildings	8.08	5
Other Non Agricultural	17.52	10
Open Water	<u>1.35</u>	<u>1</u>
Total	173.08	100

2.1 Grade 2

Land in Grade 2 occurs in a small area in the west of the site and in the south eastern corner. Topsoils are generally medium textured (either medium clay loam or sandy clay loam) although light textured topsoils (medium sandy loam) occur in places. These overlie medium clay loam and sandy clay loam subsoils, with heavy clay loam sometimes occurring at depth. Profiles are well to moderately well drained and fall in Wetness Classes I and II. Slowly permeable layers are generally absent but occasionally occur at depth. Slight soil wetness and climate are the main limiting factors on ALC grade.

Subgrade 3a

Subgrade 3a land occurs in a number of relatively small areas scattered throughout the site. Topsoils consist of medium clay loam and overlie upper subsoils of medium clay loam, sandy clay loam or heavy clay loam. Lower subsoils consist of heavy clay loam or clay and slowly permeable layers occur at depths of between 45 cm and 70 cm. These soils fall in Wetness Class III and are imperfectly drained. Soil wetness is, therefore, the main limiting factor on land in this subgrade.

Subgrade 3b

Land in this subgrade occurs in much of the north and west of the site. Topsoils consist of medium clay loam and subsoils of heavy clay loam or clay. The soils are poorly drained and fall in Wetness Class IV, with slowly permeable layers occurring at depths of between 25 and 45 cm. Soil wetness is, thus, the overall limiting factor on land in this subgrade.

Urban/Agricultural Buildings

Land classified as urban includes several minor roads, along with a number of farms and agricultural buildings scattered across the site.

Non Agricultural

Land in this category includes an area of woodland in the west, an area of allotments in the north east, and the route of a new sewage pipeline.

Open Water

This refers to a small reservoir in the western part of the site.

2 . LANGBAURGH-ON-TEES LOCAL PLAN AGRICULTURAL LAND CLASSIFICATION LAND AT WEST SALTBURN

1. INTRODUCTION AND SITE CHARACTERISTICS

The site is centred on National Grid Reference NZ 647211 and lies approximately 2 km west of Saltburn town centre, straddling the A174. It covers a total of 50 ha of which virtually all is in agricultural use, most being arable but with some being permanent grazing. Survey work was carried out in August 1991 when soils were examined by hand auger borings down to a depth of 1.00 m. Borings were carried out at 100 m intervals at points predetermined by the National Grid; further borings were made, where necessary, to refine grade boundaries and confirm soil types.

All land quality assessments were made using the methods described in "Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

1.1 Land Use

Most land is in arable production.

1.2 Climate

Average Annual Rainfall is approximately 639 mm. Accumulated temperature above 0°C between January and June is 1,303 day°C and the land is at field capacity for 162 days a year. The rainfall and temperature figures indicate an overall climatic limitation of Grade 2 on land in this area.

1.3 Relief

The site varies from 38 m to 74 m above Ordnance Datum. It is gently sloping in the north and south, and flat in the centre.

1.4 Geology and Soils

Soils are formed on boulder clay which forms a thick cover over the underlying Jurassic (Lias) shales and limestones. Soils vary from medium clay loam topsoils over similar upper subsoils, passing to heavy clay loam or clay at depth, to heavy clay loam over clay.

2. AGRICULTURAL LAND CLASSIFICATION GRADES

ALC grades occurring on this site are as follows:-

Grade/Subgrade	Hectares	Percentage of Total Area
3a	13.4	27
3b	33.7	68
Urban	1.7	3
Non Agricultural	<u>0.9</u>	<u>2</u>
Total	49.7	100

Subgrade 3a

Land in this subgrade occurs in the north and centre of the site. Topsoils are medium textured (medium clay loam or sandy clay^{loam}) and overlie similarly textured upper subsoils. Lower subsoils consist of heavy silty clay loam, silty clay or clay. Slowly permeable layers occur at depths of between 45 cm and 70 cm placing profiles in Wetness Class III (imperfectly drained). Soil wetness is the main limiting factor on ALC grade.

Subgrade 3b

Subgrade 3b land covers the southern and central parts of the site. Topsoils consist of medium or heavy clay loam and overlie subsoils of heavy clay loam or clay. Slowly permeable layers occur at about 30-40 cm depth and result in soils being poorly drained, in (Wetness Class IV). Soil wetness is the overriding limiting factor on ALC grade.

Urban

This category includes the A174 road which runs through the site and a nursery and riding centre to the south of the road.

Non Agricultural

Non agricultural land consists of the woodland in the south west of the site.

3 . LANGBAURGH-ON-TEES LOCAL PLAN AGRICULTURAL LAND CLASSIFICATION LAND AT SOUTH REDCAR

1. INTRODUCTION AND SITE CHARACTERISTICS

The site is centred on National Grid Reference NZ 617223 and lies approximately 2 km south of Redcar town centre. It covers a total of 62.3 ha, of which 92% is in agricultural (mainly arable) use.

Survey work was carried out in July 1991 when soils were examined by hand auger borings down to a depth of 1.00 m, at 100 m intervals at points predetermined by the National Grid. Further borings were made, where necessary, to refine grade boundaries and confirm soil types.

All land quality assessments were made using the methods described in "Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

1.1 Land Use

The site is mostly in arable production, with some relatively small areas of urban and non agricultural land.

1.2 Climate

Average Annual Rainfall is approximately 614 mm and Accumulated Temperature above 0°C between January and June is 1,343 day°C; the land is at field capacity for 152 days a year. The rainfall and temperature figures indicate that there is no overall climatic limitation on ALC grade.

Summer Moisture Deficits of 105 mm for winter wheat and 96 mm for potatoes indicate a slight to moderate drought limitation on the light textured and shallow soils in the north and north east of the site.

1.3 Relief

The site varies from 16 m to 26 m above Ordnance Datum and is flat to very gently sloping.

1.4 Geology and Soils

The whole site is covered by boulder clay which forms a thick mantle over the underlying Jurassic (Lias) shales and limestones. Soils formed on the boulder clay vary from sandy loam or medium clay loam topsoils over similar subsoils to medium or heavy clay loam over gleyed slowly permeable clay.

2. AGRICULTURAL LAND CLASSIFICATION GRADES

The ALC grades occurring on this site are as follows:-

Grade/Subgrade	Hectares	Percentage of Total Area
2	20.04	32
3a	21.82	35
3b	15.45	25
Urban	2.54	4
Other Non Agricultural	<u>2.48</u>	<u>4</u>
Total	62.33	100

2.1 Grade 2

There are 2 distinct areas of Grade 2 land on the site - one in the east, and a much smaller area in the north western corner. Topsoils consist of medium clay loam or, occasionally medium sandy loam and these overlie similarly textured subsoils. These soils are well to moderately well drained (falling in Wetness Classes I and II) and stoneless to very slightly stony (0-10% hard stones). The limiting factors on ALC grade are soil wetness and, on the lighter textured soils, droughtiness.

Subgrade 3a

Land in this subgrade occurs in a band which runs through the centre of the site from north to south. Topsoils consist of medium clay loam and these overlie upper subsoils of medium clay loam or medium sandy loam. Lower subsoils consist of heavy clay loam or clay. Slowly permeable layers occur at depths of around 50 cm and the soils are imperfectly drained (falling in Wetness Class III); soil wetness is, thus, the limiting factor on ALC grade.

Subgrade 3b

Land in this subgrade covers much of the western part of the site and also a small area in the north eastern corner. Topsoils consist of medium clay loam and these directly overlie heavy clay loam or clay subsoils.

Slowly permeable layers start at depths of around 30 cm and the soils are poorly drained, falling in Wetness Class IV. The limiting factors on land in this subgrade are soil wetness and workability problems.

Urban

Land classified as "Urban" occurs at Delaware Farm (in the north west of the site) and in a small area in the north east of the site which has been developed recently.

Non Agricultural

Non agricultural land occurs in a narrow band running from south to north in the east of the site, where a sewage pipeline is to be laid.