

AGRICULTURAL LAND CLASSIFICATION REPORT FOR LEEK LOCAL PLAN

Site B

Summary

24.89 ha of land to the north west of Leek were graded under the Revised Agricultural Land Classification system. 9.40% of the agricultural land was found to be grade 2., a further 26.88% to be sub-grade 3a, 48.61% was found to be sub-grade 3b with the remainder of the site classified as grade 4.

Introduction

The 24.89 ha site was visited by members of the Resource Planning Team in December 1992. An Agricultural Land Classification (ALC) survey was undertaken using the ALC Revised Guidelines (MAFF 1988).

Location, Altitude and Relief

The site lies to the north west of Leek and is bounded by Macclesfield Road in the east, the drive leading to Foker Grange in the north and the River Churnet in the south. The altitude of the site varies slightly from 152 m in the south to 178 m in the north east and therefore is not a limiting factor. The relief of the site is also generally non limiting with the exception of a small area adjacent to the river Churnet where the angle of slope exceeds 11° therefore the land can be no better than grade 4.

Climate and Rainfall

The main parameters used to assess climatic limitations are average annual rainfall (AAR) as a measure of overall wetness and accumulated temperature (ATO), as a measure of relative warmth of the locality. For this site the figures are 922 mm and 1277°C respectively indicating that the site can be graded no better than grade 2 therefore there is a climatic limitation on this site. The field capacity days (FCD) are 227.

Geology and Soils

The solid geology is composed of the Sherwood Sandstone group. The associated soils are typically stoneless sandy loam onto sandstone at depth. Soils in the southern part of the site were typically stoneless silty clay loams to depth. The other main soil type consists of slightly stony clay loam or sandy clay loam over stony clay loam over slightly stony clay or silty clay at depth.

Limitations

Soil wetness and climate are the main limitations on this site. Wetness is measured by reference to climate especially field capacity days (FCD), soil water and topsoil texture. The site is at field capacity for approximately 227 days per year. Some of the soils have a gleyed morphology within 40 cm and are slowly permeable below about 25 cm falling into wetness class IV. Other profiles fall into wetness class III being slowly permeable below about 61 cm and gleyed within 40 cm. Overall climate has been assessed by looking at average annual rainfall (AAR) and accumulated temperature (ATO) which are 922 mm and 1277°C respectively indicating that the site can be graded no higher than grade 2.

Land Use

At the time of survey the site was under grass.

Agricultural Land Quality

Grade 2

Land of this grade covers 2.34 ha and 9.40% of the site. It is found running north east - south west from Macclesfield Road approximately half way across the site. The soils are typically medium sandy loam topsoils sometimes over loamy medium sands onto sandy clay loam or clay at depth..

Sub Grade 3a

This sub-grade covers 6.69 ha and 26.88% of the site forming a 'U' shape stretching from south of Foker Grange to Macclesfield Road and then west along the line of the River Churnet. The soils are typically medium sandy loam and loamy medium sand or sandy clay loam with medium sand found at depth in some profiles.

Sub Grade 3b

This sub-grade covers 12.10 ha and 48.61% of the site forming a 'U' shape from Macclesfield Road to Foker Grange and back to Macclesfield Road. The soils are typically medium sandy loam topsoils onto sandy clay loam with some profiles continuing onto sandy clay or clay at depth. Profiles adjacent to the River Churnet have horizons of silty clay loam incorporated within the profile.

Grade 4

An area of 3.76 ha and 15.11% of the site was mapped as grade 4 where gradient became a limiting factor. The angle of slope in this area exceeded 11° but was no greater than 18°.

Break down of Agricultural Land Classification Grades

Grade	Area (ha)	% of Total	% of Agricultural Land
2	2.34	9.40	9.40
3a	6.69	26.88	26.88
3b	12.10	48.61	48.61
4	<u>3.76</u>	<u>15.11</u>	<u>15.11</u>
Total Area	24.89	100.00	100.00
Total Agricultural Area	24.89		

**Resource Planning Team
Wolverhampton
December 1992**

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Site C

Summary

43.79 ha of land to the north west of Leek were graded under the Revised Agricultural Land Classification system. 3.15% of the agricultural land was found to be grade 2, a further 26.86% to be sub-grade 3a, 54.97% was found to be sub-grade 3b with the remainder of the site being classified as a mixture of urban, agricultural buildings, woodland, open water and non-agricultural land.

Introduction

The 43.79 ha site was visited by member of the Resource Planning Team in December 1992. An Agricultural Land Classification (ALC) survey was undertaken using the ALC Revised Guidelines (MAFF 1988).

Location, Altitude and Relief

The site lies to the north west of Leek and is bounded by Macclesfield Road in the west, Highup Road in the north and Abbey Green Road in the east. The altitude of the site varies slightly from 178 m in the west to 188 m in the east. Altitude and relief are therefore non-limiting factors in the classification of the site.

Climate and Rainfall

The main parameter used to assess climatic limitations are average annual rainfall (AAR) as a measure of overall wetness and accumulated temperature (ATO), as a measure of the relative warmth of the locality. Numerous calculations were made over the site and the AAR and ATO for the western half of the site ranged from 945 mm to 959 mm and 1254°C to 1261°C respectively, indicating that the western half of the site could be graded no higher than grade 2 on climate. On the eastern side of the site the AAR ranged from 958 mm to 973 mm and the ATO ranged from 1248°C to 1255°C. The eastern half of the site therefore can be graded no higher than 3a on climate. The field capacity days (FCD) for the site ranged from 230 to 233 days.

Geology and Soils

The solid geology is composed of the Sherwood Sandstone Group. The associated soils are typically stoneless sandy loam onto sandstone at depth. Soils in the southern part of the site were typically stoneless silty clay loams to depth. The other main soil type consists of slightly stony clay loam or sandy clay loam over stony clay loam over slightly stony clay or silty clay at depth.

Limitations

Soil wetness and overall climate are the main limitations on this site. Wetness is measured by reference to climate especially field capacity days (FCD), soil water and topsoil texture. The site is at field capacity of approximately 230 to 233 days per year. Some of the soils have a gleyed morphology within 40 cm and are slowly permeable below about 25 cm falling into Wetness Class IV. Other profiles fall into Wetness Class III being slowly permeable below about 63 cm and gleyed within 40 cm. Overall climate is a limitation to the agricultural use of the land, being more severe in the east of the site than in the west as explained, in the climate and rainfall section.

Land Use

At the time of survey the site was under grass.

Agricultural Land Quality

Grade 2

Land of this grade covers 1.38 ha and 3.15% of the site. It is found in the centre of the western edge of the site adjacent to Macclesfield Road. The soils are typically medium sandy loam onto loamy medium sand over medium sand at depth.

Sub-grade 3a

This sub-grade covers 11.76 ha and 26.86% of the site. Land of this grade is found in two blocks one around Home Farm in the south western corner of the site, the other in the south east of the site around Highfield Stud Farm. The soils are typically medium sandy loam topsoils over loamy medium sand or sandy clay loam onto medium sand or clay at depth.

Sub-grade 3b

This sub-grade covers 24.07 ha and 54.97% of the site. It is found over the northern half of the site and down through the centre of the site to the southern boundary. The soils are typically medium sandy loam or medium clay loam topsoil over sandy clay loam onto clay at depth.

Urban

Land classified as urban covers 2.98 ha and 6.81% it is composed of buildings around Home Farm and North Lodge.

Land Primarily in Non-Agricultural Use

Land classified as non-agricultural covers 7.28% and 3.19 ha. This accounts for the Cricket Ground in the south west corner of the site adjacent to Macclesfield Road.

Agricultural Buildings, Open Water and Woodland

Collectively these categories cover 0.41 ha and 0.93% of the site and include Highfield Stud Farm, a small pond near the centre of the site and the surrounding copse respectively.

Breakdown of Agricultural Land Classification Grades

<u>Grade</u>	<u>Area (ha)</u>	<u>% of Total</u>	<u>% of Agricultural Land</u>
2	1.38	3.15	3.71
3a	11.76	26.86	31.60
3b	24.07	54.97	64.69
Urban	2.98	6.81	
Non-agricultural	3.19	7.28	
Agricultural buildings	0.33	0.75	
Open water	0.01	0.02	
Woodland	0.07	0.16	
Total Area	<u>43.79</u>	<u>100.00</u>	
Total Agricultural Area	37.21		100.00

Resource Planning Team
Wolverhampton

December 1992

AGRICULTURAL LAND CLASSIFICATION REPORT FOR LEEK LOCAL PLAN

Site L

Summary

13.91 ha of land to the north east of Leek were graded under the Revised Agricultural Land Classification system. The whole site was found to be Grade 3b.

Introduction

The 13.91 ha site was visited by members of the Resource Planning Team in December 1992. An Agricultural Land Classification (ALC) survey was undertaken using the ALC Revised Guidelines (MAFF 1988).

Location, Altitude and Relief

The site lies to the north east of Leek and is bounded by Thorncliffe Road in the north and Porters Lane in the east. The altitude of the site varies slightly from 222 m in the north east to 236 m in the north west. Altitude and relief are therefore non-limiting factors in the classification of the site.

Climate and Rainfall

The main parameters used to assess climatic limitations are average annual rainfall (AAR) as a measure of overall wetness, and accumulated temperature (ATO) as a measure of the relative warmth of the locality. For this site the figures are 1021 mm and 1191°C respectively indicating that the site can be graded no higher than 3b. Therefore there is a climatic limitation on this site. The field capacity days (FCD) are approximately 241.

Geology and Soils

The solid geology is Millstone Grit. The associated soils are typically slightly stony clay loam becoming increasingly stony with depth over the whole of the site.

Limitations

Soil wetness and climate are the main limitations on this site. Wetness is measured by reference to climate especially field capacity days (FCD), soil water and topsoil texture. The site is at field capacity for approximately 241 days per year. Some of the soils have a gleyed morphology within 40 cm and are slowly permeable below about 27 cm falling into Wetness Class IV. Other profiles fall into Wetness Class III being slowly permeable below about 65 cm and gleyed within 40 cm. Overall climate is a limiting factor indicating that the site can be graded no higher than Sub-grade 3b.

Land Use

At the time of survey the site was under grass.

Agricultural Land Quality

Sub-grade 3b

This Sub-grade covers 13.91 ha and 100% of the site. The soils are typically medium clay loam or medium silty clay loam topsoils on to sandy clay loam with clay found at depth.

Breakdown of Agricultural Land Classification Grades

<u>Grade</u>	<u>Area (ha)</u>	<u>% of total</u>
3b	13.91	100.00
Total Area	13.91	

Resource Planning Team
Wolverhampton
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