

AGRICULTURAL LAND CLASSIFICATION REPORT FOR HALTON LOCAL PLAN

Knights House Farm Site

Summary

5.6 ha of land situated to the north of Barrows Green, were graded under the Revised Agricultural Land Classification system. The entire site was found to be sub-grade 3b.

Introduction

The site was visited by members of the Resource Planning Team in November 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 of Barrows Green and is bounded by Barrows Green Lane in the west, the railway line in the south and Abbey Farm in the east. The altitude of the site varies slightly from 25m in the north east to 30m in the south west and therefore altitude is not a limiting factor. The relief of the site is also non-limiting.

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 823 mm and 1427°C respectively indicating that climate is a non-limiting factor on this site.

Geology and Soils

The solid geology is composed of Bunter Pebble Beds overlain by a drift of boulder clay. The associated soils are typically slightly stony clay loam or sandy clay loam over clay to depth.

Limitations

Soil wetness is the main limitation 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 195 days per year. All the soils have a gleyed morphology within 40cm and are slowly permeable above about 53 cm, falling into Wetness Class IV.

Land Use

At the time of survey the site was under cereals.

Agricultural Land Quality

Sub-Grade 3b

Land of this sub-grade covers 5.6 ha and 100% of the site. The soils are typically medium clay loam or sandy clay loam topsoils over clay to depth. Isolated profiles of sub-grade 3a and grade 4 occur within the land mapped at sub-grade 3b but these areas were too small to be mapped separately at this scale.

Breakdown of Agricultural Land Classification Grades

Grade	Area (ha)	% of Total	% of Agricultural Land
3b	<u>5.6</u>	100	100
Total Area	5.6		
Total Agricultural Area	5.6		

**Resource Planning Team
Wolverhampton
January 1993**

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Shell Green Site

Summary

34.3 ha of land to the south of Shell Green were graded under the Revised Agricultural Land Classification system 5% of the agricultural land was found to be sub-grade 3a, 88% was found to be sub-grade 3b with the remainder of the site being classified as urban or non-agricultural land.

Introduction

The site was visited by members of the Resource Planning Team in October 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 south of Shell Green and is bounded by the A562 in the north, Gorse Lane in the west, a chemical works in the east and a dismantled railway in the south. The altitude of the site varies slightly from 15m in the south to 22m in the north. The relief of the site is non-limiting.

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 805mm and 1433°C respectively indicating that climate is non-limiting on this site.

Geology and Soils

The solid geology is composed of Bunter Pebble Beds overlain by a drift of boulder clay. In the south east of the site the drift is composed of marine and estuarine alluvium. The associated soils are typically slightly stony clay loam or sandy clay loam topsoil over sandy clay loam over clay to depth.

Limitations

Soil wetness is the main limitation 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 191 days per year. The majority of the soils have a gleyed morphology within 40cm and are slowly permeable above about 52cm, falling into Wetness Class IV. Other profiles fall into Wetness Class III being slowly permeable above about 79 cm and gleyed within 40 cm.

Land Use

At the time of survey the majority of the site was under cereals or cereal stubble with a small area to the south of Johnson's Lane under scrub grassland.

Agricultural Land Quality

Sub-Grade 3a

Land of this grade covers 1.7 ha and 5% of the site. It is found in two small blocks in the south east of the site; one north of Johnson's Lane and the other directly south of the chemical works. The soils are typically medium clay loam topsoils over sandy clay loam, over medium sandy loam over clay at depth.

Sub-Grade 3b

Land of this grade cover 30.3 ha and 88% of the site. The soils are typically medium clay loam or sandy clay loam topsoils over clay to depth. Isolated profiles of the sub-grade 3a were found within the land mapped as sub-grade 3b, but these areas were too small to be mapped separately at this scale.

Urban

Land classified as urban covers 1.1 ha and 3%, it is composed of Bennett's Lane.

Land Primarily in Non Agricultural Use

Land classified as non-agricultural covers 1.2 ha and 4%. This accounts for Johnson's Lane and an area of waste land.

Breakdown of Agricultural Land Classification Grades

Grade	Area (ha)	% of Total	% of Agricultural Land
3a	1.7	5	5
3b	30.3	88	95
Urban	1.1	3	
Non-agricultural	<u>1.2</u>	<u>4</u>	
Total areas	34.3	100	
Total Agricultural Area	32.0		100

Resource Planning Team
Wolverhampton
January 1993

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Preston Brook

Summary

45.6 ha of land situated to the east of Runcorn were graded under the Revised Agricultural Land Classification System. 3.1% of the site was found to be grade 2, 37.7% was found to be sub-grade 3a and 11.6% was found to be sub-grade 3b with the remainder of the site being classified as urban, open water or non-agricultural land.

Introduction

The site was visited by Members of the Resource Planning Team in December 1992 and January 1993. 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 Junction 11 on the M56 and is bounded by a railway line in the east, the Bridgewater Canal in the south west and a railway line in the north west. The altitude of the site varies from 12 m in the north to 26 m in the south. Relief is generally non-limiting for this site with the exception of a man-made mound in the centre of the site where the angle of slope exceeds 7°.

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 774 mm and 1435°C respectively indicating that climate is non-limiting on this site.

Geology and Soils

The solid geology is composed of Lower Keuper Marl with a small area of Keuper Sandstone being found in the north east of the site. This solid geology is overlain by a drift of Glacial Sand and Gravel in the south of the site and boulder clay in the north of the site. The associated soils are typically medium sandy loam or sandy clay loam

topsoils over sandy clay loam or loamy medium sand onto clay or medium sand to depth.

Limitations

Soil wetness and soil droughtiness 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 185 days. The majority of the soils have a gleyed morphology below 40 cm and are slowly permeable between about 35 cm and 66 cm falling into Wetness Class III. Other soils have a gleyed morphology above 40 cm and do not have a slowly permeable layer within 80 cm of the surface, falling into Wetness Class I. These soils are light textured and are therefore prone to drought. A soils susceptibility to drought is measured by the amount of water the profile can hold (Ap) in comparison to the potential soil moisture deficit for the area (MD). In this area the moisture deficit for wheat is 95 mm and for potatoes is 83 mm.

Land Use

At the time of survey the site was under grass.

Agricultural Land Quality

Grade 2

Land of this grade covers 1.4 ha and 3.1% of the site. It is found in the southern part of the site directly north of Preston Brook Marina. The soils are typically medium sandy loam or sandy clay loam topsoil over medium clay loam or sandy clay loam onto medium sand to depth.

Sub-grade 3a

Land of this sub-grade covers 17.2 ha and 37.7% of the site. It is found over the central area of the site, north and south of Red Brow Lane. The soils are typically sandy clay loam topsoils onto medium sandy loam or loamy medium sand over sandy clay or sandy clay loam at depth. The other soils of this sub-grade have medium sandy loam topsoils onto sandy clay loam or loamy medium sand over medium sand to depth.

Sub-grade 3b

This sub-grade covers 5.3 ha and 11.6% of the site. It is found in the north east of the site adjacent to the railway line and in the central area of the site north of Red Brow Lane. The soils are typically sandy clay loam or heavy clay loam topsoils over clay to depth. The areas of sub-grade 3b in the central part of the site have been downgraded to 3b according to relief where the angle of slope is between 7° and 11°.

Land Primarily in Non-Agricultural Use

Land classified as non-agricultural covers 18.1 ha and 39.7% of the site. It occurs in two main blocks with the larger block being found in the northern part of the site and covers an area of balancing ponds. The area in the south of the site around Preston Brook Marina is also non-agricultural.

Urban

Land classified as urban covers 1.5 ha and 3.3% of the site. It includes Red Brow Lane and the service roads around Preston Brook Marina.

Open Water

This covers 2.1 ha and 4.6% of the site and is composed of Preston Brook Marina.

Breakdown of Agricultural Land Classification Grades

Grade	Area (ha)	% of Total	% of Agricultural Land
2	1.4	3.1	5.9
3a	17.2	37.7	72.0
3b	5.3	11.6	22.1
Non-agricultural	18.1	39.7	
Urban	1.5	3.3	
<u>Open water</u>	<u>2.1</u>	<u>4.6</u>	
Total area	45.6	100%	100%
Total agricultural area	23.9		

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Lunts Heath Site

Summary

35 ha of land situated between the M62 and Farnworth, were graded under the Revised Agricultural Land Classification system. 62% of the site was graded as being non agricultural land, urban or agricultural buildings, a further 35% was found to be sub-grade 3b, with a small area classified as sub-grade 3a.

Introduction

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

Location, Altitude and Relief

The site lies south of junction 7 on the M62 and north of Farnworth, it is bounded by Norlands Lane to the west and Lunts Heath Road to the south. Agricultural land forms the boundary to the north and east. The altitude of the site varies slightly from 44m in the south east to 49m in the south west and therefore altitude is not a limiting factor. The relief of the site is also non-limiting.

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 850 mm and 1404°C respectively indicating that climate is non-limiting on this site.

Geology and Soils

The solid geology is composed of Bunter Pebble Beds in the central part of the site with Permo Triassic Sandstone in the eastern and western parts of the site. The solid geology is overlain by boulder clay. The associated soils are typically slightly stony clay loam or sandy clay loam over clay at depth.

Limitations

Soil wetness is the main limitation 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 199 days per year. Some of the soils have a gleyed morphology within 40 cm and are slowly permeable above about 54 cm, falling into Wetness Class IV. Other profiles fall into Wetness Class III being gleyed below 40 cm and having a slowly permeable layer above about 71 cm.

Land Use

At the time of survey the land supported cereals in the south eastern fields and grass in the north and south west.

Agricultural Land Quality

Sub-Grade 3a

This sub-grade covers 1.0 ha and 3% of the site. It covers a field in the north east of the site. The soils are typically medium clay loam topsoils over sandy clay loam over clay at depth.

Sub-Grade 3b

This sub-grade covers 12.3 ha and 35% of the site. It is found in the south adjacent to Lunts Heath road and north west adjacent to Norlands Lane. The soils are typically medium clay loam topsoils over sandy clay loam with clay found at depth. Isolated profiles of sub-grade 3a occur within the land mapped as sub-grade 3b but these areas were too small to be mapped separately at this scale.

Urban

Land classified as urban covers 4.8 ha and 14% of the site and is composed of buildings adjacent to Norlands Lane and adjacent to Wilmere Lane.

Land Primarily in Non-Agricultural Use

Land classified as non-agricultural covers 46% and 16.1 ha. This accounts for the recreation ground in the western part of the site.

Agricultural Buildings

This category covers 0.8 ha and 2% of the site and includes Glebe Farm and farm buildings adjacent to Wilmere Lane.

Breakdown of Agricultural Land Classification Grades

Grade	Area (ha)	% of Total	% of Agricultural Land
3a	1.0	3	8
3b	12.3	35	92
Urban	4.8	14	
Non-agricultural	16.1	46	
Agricultural Buildings	0.8	2	
Total Area	35.0	100	100
Total Agricultural Area	13.3		

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Wolverhampton
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Halton Moss Site

Summary

27.7 ha of land to the north east of Runcorn were graded under the Revised Agricultural Land Classification system. 5.4% of the site was found to be grade 1, a further 17.7% to be grade 2, 32.1% was found to be grade 3a with the remainder of the site classified as sub-grade 3b, grade 4, non-agricultural land, woodland and open water.

Introduction

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

Location, Altitude and Relief

The site lies north east of Runcorn and is bounded by the Manchester Ship Canal in the north and Moss Lane in the east. The altitude of the site varies slightly from 6m in the north and south to 10m in the east and therefore is not a limiting factor. The relief of the site is also non-limiting.

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 788mm and 1450°C respectively indicating that climate is non-limiting on this site.

Geology and Soils

The solid geology is composed of Upper Mottled Sandstone with a drift geology of marine estuarine alluvium in the south west with blown sand in the north, east and central area of the site. The associated soils are typically heavy clay loam topsoils onto

clay onto medium sand to depth and sandy clay loam topsoils onto loamy medium sand and medium sand to depth respectively.

Limitations

Soil wetness is a limitation 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 188 days per year. Some of the soils are gleyed within 40 cm and are slowly permeable above 51 cm, falling into Wetness Class IV. Other profiles fall into Wetness Class I being gleyed within 40 cm but having no slowly permeable layer. Other profiles generally have no gleying within 40cm and do not have a slowly permeable layer within 80 cm of the surface, falling into Wetness Class I. These soil's are light textured and are therefore prone to drought. A soils susceptibility to drought is measured by the amount of water the profile can hold (Ap) in comparison to the potential soil moisture deficit for the area (MD). In this area the moisture deficit for wheat is 94 mm and for potatoes 83 mm.

Land Use

At the time of survey the site was under a mixture of cereals and grass.

Agricultural Land Quality

Grade 1

This grade covers 1.5 ha and 5.4% of the site. It covers a field in the north east of the site. The soils are typically organic medium sandy loam topsoils over loamy medium sand onto medium sand to depth.

Grade 2

Land of this grade covers 4.9 ha and 17.7% of the site. It covers the south eastern area of the site and an area in the central northern part of the site. The soils are typically medium sandy loam or sandy clay loam topsoils onto medium sand or sandy clay loam to depth.

Sub-grade 3a

This sub-grade covers 8.9 ha and 32.1% of the site. It occurs in two main blocks one in the centre of the site, the other in the north east of the site. The soils are typically medium sandy loam or sandy clay loam topsoils onto loamy medium sand onto medium sand to depth. Occasional profiles have clay at about 65 cm.

Sub-grade 3b

This sub-grade covers 0.2 ha and 0.7% of the site. It is found around the pond on the south west boundary of the site, south of Six Acre Lane. The soils are typically medium sandy loam topsoils over loamy medium sand and medium sand onto clay to depth.

Grade 4

Land of this grade covers 3.8 ha and 13.7% of the site. It is found on the western side of the site. The soils are typically heavy clay loam topsoils over clay onto medium sand at depth.

Non-agricultural Land, Woodland and Open Water

Land of this grade covers 8.4 ha and 30.4% of the site. A large area of non-agricultural land occurs in the north east where a nursery is located, the other areas of non-agricultural land are mapped over Six Acre Lane and a derelict works in the south of the site. 2.1 ha accounts for the area of woodland found in the western part of the site. The area of open water covers 0.1 ha and 0.4% of the site and accounts for the pond in the south west of the site.

Breakdown of Agricultural Land Classification Grades

Grade	Area (ha)	% of Total	% of Agricultural Land
1	1.5	5.4	7.8
2	4.9	17.7	25.4
3a	8.9	32.1	46.1
3b	0.2	0.7	1.0
4	3.8	13.7	19.7
Non-agricultural	6.2	22.4	
Woodland	2.1	7.6	
Open water	0.1	0.4	
Total Area	27.7 ha	100%	
Total Agricultural Area	19.3 ha		100%

Resource Planning Team
Wolverhampton

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