AGRICULTURAL LAND CLASSIFICATION
AND
SOIL RESOURCES REPORT
CLIFTON MARSH

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WOLVERHAMPTON

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AGRICULTURAL LAND CLASSIFICATION AND SOIL RESOURCES REPORT FOR CLIFTON MARSH

1 SUMMARY

1.1 The Agricultural Land Classification (ALC) Survey for this site shows that the following proportions of ALC grades are present:

Grade/Subgrade	ha	% of site
2	31.1	40
3a	45.8	60

1.2 The main limitation to the agricultural use of land in Grade 2 and Subgrade 3a is soil wetness.

2 INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in April 1995. An Agricultural Land Classification survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales - Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

2.2 The 76.9 ha site is situated to the west of Preston. The land immediately to the west and east of the site is predominantly in agricultural use, whilst the land to the south, adjacent to the River Ribble is in use as a waste disposal site.

2.3 The survey was requested by MAFF in connection with a proposal by Lancashire County Council for an extension to the existing waste disposal site.

2.4 At MAFF Land Use Planning Unit's request this was a detailed grid survey at 1:10000 with a minimum auger boring density of 1 per hectare. The attached map is only accurate at the base map scale and any enlargement would be misleading.

2.5 At the time of the survey the site was under cereals, potatoes and some set-aside.

3 CLIMATE

3.1 The following interpolated data are relevant for the site (SD 472293) :

Average Annual Rainfall (mm)	936
Accumulated Temperature above 0°C January to June (day °C)	1433

3.2 There is no overall climatic limitation on the site

3.3 Other relevant data for classifying land include:

Field Capacity Days (days)	212
Moisture Deficit Wheat (mm)	81
Moisture Deficit Potatoes (mm)	67

4 SITE

4.1 Three site factors of gradient, micro relief and flooding are considered when classifying land.

4.2 These factors do not impose any limitations on the agricultural use of the land on this site. However a number of small areas were noted where standing water had prevented crop emergence. Although standing water was not present at the time of survey, it was evidenced by the presence of cracked and capped soils. These areas were too small to map at this scale.

5 GEOLOGY AND SOILS

5.1 The solid geology of the area is comprised of Bunter Sandstone - British Geological Survey Sheet 75 Preston 1 Inch. This is overlain with deposits of Estuarine alluvium.

5.2 The underlying geology influences the soils which have either a silt loam or sandy silt loam texture.

6 AGRICULTURAL LAND CLASSIFICATION

6.1 Grade 2 - occupies 31.1 ha (40%) of the survey area and is found in the centre and the south of the site.

6.1.1 In the centre of the site the soils are typically silt loam or silty clay loam texture overlying fine sandy silt loam or silt loam. In the south of the site the soils typically consist of fine sandy silt loam texture over loamy fine sand and fine sand. The soils are gleyed but do not have a slowly permeable layer. The depth to gleying and the topsoil texture place these soils into Grade 2.

6.1.2 The main limitation to the agricultural use of this land is soil wetness.

6.2 Subgrade 3a - occupies 45.8 ha (60%) of the survey area.

6.2.1 The soil has either a silt loam or silty clay loam texture over silty clay loam or sandy silty loam. The soils are gleyed but do not have a slowly permeable layer. The depth to gleying and the topsoil texture place these soils into Subgrade 3a.

6.2.2 The main limitation to the agricultural use of this land is soil wetness.

6.3 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade/Sub-grade	Area in Hectares	% of Survey Area
2	31.1	40
3a	45.8	60
Totals	**76.9**	**100**

SOIL RESOURCES REPORT
CLIFTON MARSH

1. INTRODUCTION

1.1 The soils on the site were investigated using a Dutch auger with borings made on a 100 metre grid. Three soil units were identified and these are described below.

2. SOIL UNITS

2.1 Unit 1 comprises 18.0 ha (23%) of the site. The soils have a silty clay loam texture over loamy fine sand and fine sandy silt loam and are stoneless. The soils are gleyed but do not have a slowly permeable layer. A typical profile description is as follows:

0-32 cm; dark greyish brown 10YR42; stoneless; silty clay loam; moderately developed coarse sub-angular blocky; friable;

33-53 cm; dark grey 10YR41; yellowish brown 10YR56 mottles, many; stoneless; silty clay loam; moderately developed medium angular blocky; firm;

54-77 cm; greyish brown 10YR52; yellowish brown 10YR56 mottles, many; loamy fine sand; moderately developed coarse platy; friable;

78-120 cm; greyish brown 10YR52; yellowish brown 10YR56 mottles, common; fine sandy silty loam; moderately developed coarse platy; friable.

2.2 Unit 2 comprises 36.0 ha (47%) of the site. The soils have a sandy silty loam or silt loam texture over fine sandy loam and loamy fine sand and are stoneless. The subsoils are gleyed. A typical profile description is as follows:

0-33 cm; brown 10YR43; fine sandy silt loam; moderately developed medium sub-angular blocky to blocky; friable;

34-56 cm; brown 10YR53; yellowish brown 10YR56 mottles, common; fine sandy loam; moderately developed coarse sub-angular blocky; laminations; friable;

57-73 cm; greyish brown 10YR52; yellowish brown 10YR58 mottles, many; fine sandy silt loam; moderately developed coarse sub-angular blocky; friable;

74-120 cm; brown 10YR53; yellowish brown 10YR56 mottles, common; loamy fine sand; moderately developed medium platy; friable.

2.3 Unit 3 comprises 22.9 ha (30%) of the site. The soils consist of fine sandy silt loam or silt loam textures over silty clay loam and silt loam. Within this unit there are small, isolated areas with silty clay loam topsoils. The subsoils are gleyed but there is no slowly permeable layer. A typical profile description is as follows:

0-38 cm; dark greyish brown 10YR42; fine sandy silt loam; moderately developed medium sub-angular blocky; friable;

39-46 cm; brown 10YR53; yellowish brown 10YR58 mottles, common; fine sandy silt loam; moderately developed medium sub-angular blocky; friable;

47-81 cm; grey 10YR51; yellowish brown 10YR58 mottles, common; silty clay loam; moderately developed coarse angular blocky, coarse prismatic; firm; > 0.5% porosity;

81-120 cm; brown 10YR53; brownish yellow 10YR68 mottles, common; silt loam; moderately developed fine sub-angular blocky; friable.

2.4 SUMMARY OF SOIL UNIT AREAS

Unit	Area (ha)	Percent of Site
1	18.0	23
2	36.0	47
3	22.9	30
	76.9	100