AGRICULTURAL LAND CLASSIFICATION
DAVENHAM BY-PASS LANDFILL

Resource Planning Team
ADAS Statutory Group
WOLVERHAMPTON

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AGRICULTURAL LAND CLASSIFICATION REPORT FOR DAVENHAM BY-PASS LANDFILL

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	4	34
3a	7.8	65
Other land	0.1	1

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

1.3 The main limitation to the agricultural use of land in Subgrade 3a is soil wetness.

2 INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in January 1996. 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 11.9 ha site is situated to the east of Davenham and the by-pass. The land immediately surrounding the site is predominantly in agricultural use.

2.3 The survey was requested by MAFF in connection with the A533 Davenham By-Pass.

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 grass.

3 CLIMATE

3.1 The following interpolated data are relevant for the site (SJ 668710) :

Average Annual Rainfall (mm)	791
Accumulated Temperature above 0°C January to June (day °C)	1437

3.2 There is no overall climatic limitation on the site.

3.3 Other relevant data for classifying land include:

Field Capacity Days (days)	186
Moisture Deficit Wheat (mm)	94
Moisture Deficit Potatoes (mm)	83

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.

5 GEOLOGY AND SOILS

5.1 The solid geology of the area is comprised of Lower Keuper Saliferous Beds - British Geological Survey Sheet 109 Chester 1 Inch. This is overlain with deposits of Boulder Clay, Glacial Sand and Gravel, First Terrace, Fluvio-Glacial Gravel.

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

6 AGRICULTURAL LAND CLASSIFICATION

6.1 Grade 2 - occupies 4 ha (34%) of the survey area and is found on higher ground in the west of the site.

6.1.1 These soils typically have a sandy clay loam texture overlying medium sandy loam and medium sand to depth, with few or no stones within the profile. Soil wetness places these soils in Wetness Class I.

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

6.2 Subgrade 3a - occupies 7.8 ha (65%) of the survey area occupies the remaining land.

6.2.1 The soil has sandy clay loam texture over loamy sand and sand to depth, with few or no stones within the profile. Observations of gleying place these soils in Wetness Class II.

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

6.3 Other land includes part of a woodland - occupying 0.1 ha (1%) of the survey area in a thin strip along the south western site boundary.

6.4 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade/Sub-grade	Area in Hectares	% of Survey Area	% of Agricultural Land
2	4	34	34
3a	7.8	65	66
Other land	0.1	1	
Total	**11.9**	**100**	**100**

SOIL RESOURCES AT THE PROPOSED DAVENHAM BY-PASS LANDFILL SITE

1 INTRODUCTION

The soil resource map has been prepared following the Agricultural Land Classification survey. One soil unit covers the agricultural land and a second one the small area of woodland.

2 SOIL UNITS

2.1 Unit 1 covers 11.8 ha and includes all the agricultural land. The soil has a sandy clay loam topsoil to depths of between 35 and 40cm, overlying loamy sand and sand subsoils. Occasional subsoils of heavy clay loam occur towards the eastern boundary of the site, but cover too small an area to separate. Two soil pits were dug in the unit.

Soil pit 1

0-35 cm sandy clay loam 10YR33

35-104 cm heavy clay loam with occasional sandy pockets, 75YR61 with common mottles(10YR68), moderately developed, coarse to medium subangular blocky, stone content 2%, hard rock.

Soil pit 2

0-32 cm sandy clay loam, 10YR32, stone content 1% hard rock

32-82 cm loamy medium sand, 10YR32, stone content 1% hard rock, weakly developed coarse sub angular blocky structure, friable

82-100 cm medium sand 10YR63, weakly developed coarse sub angular blocky structure, friable

2.2 Unit 2 is identified as the small area of woodland covering 0.1 ha. No soils information was recorded, but if this area is disturbed the soils should be handled separately from those in Unit 1.

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