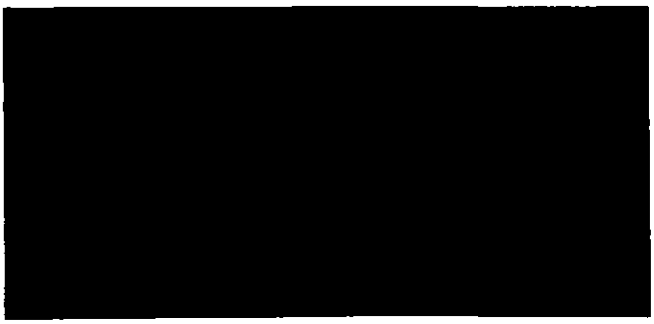

MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
SUNDERLAND UDP, LAND AT
MIDDLE HERRINGTON, TYNE AND WEAR
MARCH 1994

ADAS
Leeds Statutory Group

Job No:-43/94
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SUMMARY

A semi detailed Agricultural Land Classification Survey of 96.2 ha of land at Middle Herrington, Sunderland, Tyne and Wear, was carried out in March 1994.

95.1 ha were in agricultural use of which 66.1 ha falls within Grade 2. Soils were mostly slightly stony sandy clay loams and medium sandy loams with occasionally gleyed subsoils (Wetness Class I or II). This land is limited to grade 2 by soil droughtiness and the overall climatic restriction.

15.6 ha falls within Subgrade 3a. Topsoils are medium clay loam or sandy clay loam over gleyed subsoils, slowly permeable at depth (Wetness Class III). This land is limited to Subgrade 3a by soil wetness restrictions. A small area of Subgrade 3a land towards the centre of the site contains light textured stony soils limited by soil droughtiness.

Subgrade 3b covers 11.5 ha. Topsoils are medium clay loam over gleyed slowly permeable subsoils (Wetness Class IV). Soil wetness imposes a limitation of Subgrade 3b.

Grade 4 (1.9 ha) includes the steeply sloping land west of Hastings Hill Farm.

The remaining 1.1 ha is classed as farm buildings.

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MAP

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT MIDDLE HERRINGTON, SUNDERLAND, TYNE AND WEAR

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies to the east of the A19 (T) approximately 6 km south west of Sunderland town centre. It is centred around National Grid Reference NZ355540. A semi detailed ALC survey was carried out in march 1994 when soils were examined by hand auger boring at a density of one boring per two hectares at points predetermined by the National Grid. Soil inspection pits were also dug to examine the soil in greater detail and to collect samples for laboratory analysis. Land quality was assessed using the methods described in "Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988).

1.2 Land Use and Relief

At the time of survey most of the land was in arable use and set aside. A few fields were under grass north of Hastings Hill Farm and south east of Middle Herrington Farm.

Slopes were generally gentle with variable aspect although steeply sloping land occurs around the tumulus west of Hastings Hill Farm. Altitude ranges from 124 m to 90 m A.O.D.

1.3 Climate

Grid Reference	:	NZ355540
Altitude (m)	:	95
Accumulated Temperature above 0°C (January - June)	:	1255 day °C
Average Annual Rainfall (mm)	:	659
Climatic Grade	:	2
Field Capacity Days	:	160
Moisture Deficit (mm) Wheat	:	91
Moisture Deficit (mm) Potatoes	:	77

1.4 Geology, Soils and Drainage

Soils are mostly formed upon a variable thickness of boulder clay and glaciofluvial drift. Solid Magnesian Limestone is occasionally exposed within one metre of the surface.

Topsoils and subsoils are generally slightly stony, sandy clay loam or medium sandy loam. Weathering bedrock is occasionally encountered at about 90 cm depth. These soils have no slowly permeable layers, are occasionally gleyed and fall within Wetness Class I or II (well to moderately well drained).

To the extreme north and south of the site soils are developed over deep heavier textured drift and topsoils are usually a medium clay loam. Subsoils are clayey, gleyed and slowly permeable at variable depths. These soils fall into Wetness Class III or IV (imperfectly to poorly drained).

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	66.1	68.7
3a	15.6	16.2
3b	11.5	12.0
4	1.9	2.0
5		
(Sub total)	(95.1)	(98.9)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings	1.1	1.1
Open Water		
Land not surveyed		
(Sub total)	(1.1)	(1.1)
TOTAL	96.2	100

2.1 Grade 2

Grade 2 land occurs widely across the site. Topsoils and subsoils are generally a slightly stony, sandy clay loam or occasionally a medium sandy loam. Subsoils are sometimes gleyed. These soils fall within Wetness Class I or II. Bedrock is occasionally encountered at about 90 cm depth.

Slight droughtiness and the overall climatic restriction are the factors limiting this land to Grade 2.

2.2 Subgrade 3a

Subgrade 3a land is found towards the centre and south of the site. Most of this land contains medium clay loam topsoils over gleyed subsoils, slowly permeable at depth (Wetness Class III). This land is limited to Subgrade 3a by a moderate soil wetness limitation.

This subgrade also includes light textured soils found on sandy deposits, towards the middle of the site. Topsoils are sandy clay loam over a slightly to moderately stony medium sandy loam or loamy medium sand subsoils. Moderate soil droughtiness limits this land to Subgrade 3a.

2.3 Subgrade 3b

Two areas of Subgrade 3b land both contain medium clay loam topsoils over clayey slowly permeable subsoils (Wetness Class IV). Soil wetness and workability limit this land to Subgrade 3b.

Grade 4

This includes the steeply sloping land around the tumulus west of Hastings Hill Farm.

2.4 Farm Buildings

This includes Middle Herrington Farm and Hastings Hill Farm.

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MAPS