

AGRICULTURAL LAND CLASSIFICATION
NORTHUMBERLAND MINERALS
LOCAL PLAN
LAND AT HIGHTHORN
JULY 1995

ADAS
Leeds Statutory Group

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SUMMARY

A reconnaissance ALC survey of 500 ha of land between Highthorn in the south and Widdrington in the north was carried out in July 1995, in relation to Northumberland Minerals Local Plan. At the time of the survey 98% of the site was in agricultural use.

Soils on the site are derived from boulder clay, but land north of Houndalee and in the west has been restored.

All of the agricultural land (490 ha) falls into Subgrade 3b. The ALC grade of this land is limited by severe soil wetness and workability restrictions.

The remaining land consists of farm woodland (5 ha), urban (< 5 ha), farm buildings (< 5 ha) and open water (< 5 ha).

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AGRICULTURAL LAND CLASSIFICATION REPORT FOR NORTHUMBERLAND
MINERALS LOCAL PLAN - LAND AT HIGHTHORN

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

Approximately 490 ha of land to the east and west of the A1068 between Highthorn and Widdrington were the subject of a reconnaissance Agricultural Land Classification (ALC) survey in July 1995. The site is centred around National Grid Reference NZ 262 941. Soils on the site were examined by hand auger borings and appropriate soil inspection pits. Auger boring locations were determined by reference to the following: published geology and soils information; previous ALC survey (NZ29); landforms and relief. Overall survey density was approximately one boring per 4 ha. Land quality assessments were made 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 the survey the majority of land on the site was in agricultural use, comprising permanent grass, cereals, oil seed rape and set aside. The land is level to moderately sloping (0-4°). Average altitude is 20 m AOD.

1.3 Climate

Grid Reference	: NZ 262 941
Altitude (m)	: 20
Accumulated Temperature above 0°C (January - June)	: 1326 day°C
Average Annual Rainfall (mm)	: 654
Climatic Grade	: 1
Field Capacity Days	: 167
Moisture Deficit (mm) Wheat	: 98
Moisture Deficit (mm) Potatoes	: 86

1.4 Geology, Soils and Drainage

The site is underlain by Upper Carboniferous Coal Measures, with a drift cover of boulder clay. Land to the north and along the western edge of the site is restored, following previous open cast coal workings.

The boulder clay derived soils consist of medium and heavy clay loam topsoils over slowly permeable clay subsoils. These soils are poorly drained falling into Wetness Class IV.

The restored soils are of a similar texture, but with poorly developed subsoil structures. Again these soils are poorly drained, falling into Wetness Class IV.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2		
3a		
3b	490	98.0
4		
5		
(Sub total)	(490)	(98.0)
Urban	< 5	0.1
Non Agricultural		
Woodland	5	1.2
Agricultural Buildings	< 5	0.3
Open Water	< 5	0.4
Land not surveyed		
(Sub total)	(10)	(2.0)
TOTAL	500	100

2.1 Subgrade 3b

All of the agricultural land falls within Subgrade 3b. Unrestored soils consist of stoneless to very slightly stony medium and heavy clay loam topsoils, over gleyed slowly permeable clay subsoils. Severe soil wetness and workability restrictions limit this land to Subgrade 3b.

Restored soils are found directly north of Houndalee, to the east and west of the A1068 and along the western edge of the site to the west of Houndalee Latch. These soils are of a similar texture to the unrestored ones, however detailed inspection of the subsoil structure, consistence and root development suggested these soils are no worse than soil Wetness Class IV. This land is also limited to Subgrade 3b by severe soil wetness and workability problems.

2.2 Farm Woodland

Several areas of farm woodland occur over the site, mainly in the north, with a small area located centrally.

2.3 Urban

Urban land consists of a private house and gardens at Houndalee.

2.4 Farm Buildings

Farm buildings are found at Houndalee, and Highthorn to the south.

2.5 Open Water

Two areas of open water are found near Hemscott Hill Farm.

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