

AGRICULTURAL LAND CLASSIFICATION
NORTHUMBERLAND MINERALS
LOCAL PLAN
LAND NORTH OF MORPETH
JULY 1995

ADAS
Leeds Statutory Group

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SUMMARY

A reconnaissance ALC survey of 255 ha of land between Pegswood and Morpeth was carried out in June 1995.

At the time of survey most of the site was in arable use.

Soils on the site are derived from boulder clay and sand and gravel drift deposits. Some land has been restored following open cast coal workings in the 1940's.

100 ha were Subgrade 3a. Soil wetness and droughtiness limit ALC grade.

150 ha of Subgrade 3b were mapped. This land was subject to a significant soil wetness limitation.

Small areas of urban and farm buildings occur on the site.

CONTENTS

1. INTRODUCTION AND SITE CHARACTERISTICS
2. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT FOR NORTHUMBERLAND
MINERALS LOCAL PLAN - LAND NORTH OF MORPETH

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

Approximately 255 ha of land between Pegswood and Morpeth were the subject of a reconnaissance Agricultural Land Classification (ALC) survey in June 1995. The site is centred around OS National Grid Reference NZ 215 873. Soils on the site were examined by hand auger borings and appropriate soil inspection pits. Auger borings locations were determined by reference to the following: published geology and soils information; previous ALC survey in 1970's (NZ18/28); landforms and relief. Overall survey density was approximately one boring per 3 ha. Land quality assessments were made using the methods described in "Agricultural Land Classification of England & 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 agricultural land on the site was mostly in arable use, growing mainly cereals with some leeks, maize, oilseed rape and ley grass. Slopes are mostly gentle and do not limit ALC grade. Average altitude is 65m AOD

1.3 Climate

Grid Reference	: NZ 215 873
Altitude (m)	: 65
Accumulated Temperature above 0°C (January - June)	: 1278 day °C
Average Annual Rainfall (mm)	: 714
Climatic Grade	: 2
Field Capacity Days	: 183
Moisture Deficit (mm) Wheat	: 88
Moisture Deficit (mm) Potatoes	: 74

1.4 Geology, Soils and Drainage

Upper Carboniferous Coal Measures do not outcrop within a metre of the surface on the site. Soils are developed from drift deposits of mostly boulder clay, but with sand and gravel in the west, south and east of the site. Land between the A197 and Pegswood has been restored following shallow open cast coal working, believed to have taken place in the late 1940's.

Boulder clay derived soils generally contain medium clay loam topsoils over either clayey, slowly permeable subsoils, or similar textured upper subsoils and clayey, slowly permeable lower subsoils. Profiles are either soil Wetness Class III or IV.

Sand and gravel derived soils have sandy clay loam or medium sandy loam topsoils over a mixture of light to medium textured, often very stony subsoils. Profiles are soil Wetness Class I or II.

Restored soils have medium textured topsoil over heavy textured subsoils, which are slowly permeable. These soils are 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	100	39
3b	150	59
4		
5		
(Sub total)	(250)	(98)
Urban	< 5	< 1
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings	< 5	< 1
Open Water		
Land not surveyed		
(Sub total)	(5)	(2)
TOTAL	<u>255</u>	<u>100</u>

2.1 Subgrade 3a

This subgrade may also contain some small areas of Grade 2 land, but at the reconnaissance scale of survey it was not possible to differentiate between the two Grades. Two soil types occur within this Subgrade. Firstly, imperfectly drained boulder clay derived soils, with soil wetness and workability limitations, are included in Subgrade 3a. They occur mostly near Pegswood Moor Farm and Whitefield Farm. Secondly, light textured soils with a topsoil stoniness and droughtiness limitation are found in the south and west of the site.

2.2 Subgrade 3b

The remaining agricultural land is Subgrade 3b. This includes poorly drained boulder clay and restored soils. Soil wetness and workability limit the ALC grade of this land. Subsoils in the restored land appear over time to have developed good enough structures, porosity and root penetration for them to be considered no worse than Wetness Class IV.

2.3 Urban

This includes a railway track and a council depot.

2.4 Farm Buildings

Two farms - Climbingtree and Pegswood Moor lie within the site boundary.