

4

AGRICULTURAL LAND CLASSIFICATION  
SUNDERLAND UNITARY DEVELOPMENT PLAN  
LAND AT RYHOPE, SUNDERLAND  
TYNE AND WEAR  
MARCH 1993

ADAS  
Leeds Statutory Group

Job No:- 76/93  
MAFF Ref:- EL 30/31

2F05 6409

ryhope.doc.mp

## SUMMARY

An Agricultural Land Classification of 41 ha of land at Ryhope, Sunderland was carried out in March 1993.

Almost 40 ha of the site was in agricultural use of which 19.8 ha falls within Grade 2. Soils on this land are well or moderately well drained and typically consist of medium clay loam topsoils and upper subsoils overlying heavy clay loam lower subsoils. Slowly permeable layers occur in places at between 55cm and 85cm depth and soil wetness is, thus, the factor which limits the land to Grade 2.

6.6 ha of Subgrade 3a occurs on the site. Profiles are similar to those described above but the slowly permeable heavy clay loam subsoil typically begins at between 45cm and 50cm depth. Again, soil wetness is the factor which limits the ALC grade of the land.

The remainder of the agricultural land on the site (13.2 ha) falls in Subgrade 3b. Soils are poorly drained and consist of medium clay loam topsoils overlying slowly permeable heavy clay loam subsoils at around 35cm depth. Soil wetness is again the factor which limits this land to Subgrade 3b.

## CONTENTS

1. INTRODUCTION AND SITE CHARACTERISTICS
2. AGRICULTURAL LAND CLASSIFICATION GRADES

## MAP

1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT: SUNDERLAND UDP, LAND AT RYHOPE, SUNDERLAND, TYNE AND WEAR

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies 5 Km south-south east of Sunderland City Centre and is centred on Grid Reference NZ 412520. Survey work was carried out in March 1993 when soils were examined by hand auger borings at a density of one boring per hectare at points predetermined by the National Grid. One soil pit was dug to allow the assessment of subsoil structure.

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 site had been sown to winter wheat or spring barley, or was under ley grass. The remainder consisted of a small area of non-agricultural and urban land in the east of the site. Site altitude varies from 33m AOD in the east to 55m AOD in the west. The site is gently sloping (typically 1-4°) with an easterly aspect.

1.3 Climate

Grid Reference	: NZ 412520
Altitude (m)	: 45
Accumulated Temperature above 0°C (January-June)	: 1312 day°C
Average Annual Rainfall (mm)	: 643
Climatic Grade	: 1
Field Capacity Days	: 157
Moisture Deficit (mm) Wheat	: 98
Moisture Deficit (mm) Potatoes	: 86

#### 1.4 Geology, Soils and Drainage

The site is underlain by Upper Magnesian Limestone and overlain by deposits of boulder clay. Profiles in the east of the site typically consist of medium-textured topsoils and upper subsoils (generally consisting of medium clay loam) overlying heavy-textured (generally heavy clay loam) lower subsoils. The soils in this part of the site are well drained or moderately well drained, falling in Wetness Classes I or II.

Profiles in the west of the site are generally imperfectly or poorly drained (falling in Wetness Classes III or IV) and consist of medium-textured topsoils and, in places, upper subsoils, overlying slowly permeable heavy-textured subsoils at between 35cm and 50cm depth.

## 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	19.8	48.7
3a	6.6	16.2
3b	13.2	32.5
4		
5		
(Sub total)	(39.60)	(97.4)
Urban	0.05	0.1
Non Agricultural	1.00	2.5
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(1.05)	(2.6)
	<hr/>	<hr/>
<b>TOTAL</b>	<b>40.65</b>	<b>100</b>
	<hr/>	<hr/>

## 2.1 Grade 2

Grade 2 land covers much of the east of the site. Profiles are well drained or moderately well drained (Wetness Classes I or II) and typically consist of medium clay loam topsoils and upper subsoils overlying slowly permeable heavy clay loam lower subsoils at between 55cm and 85cm depth. This land is limited to Grade 2 by slight soil wetness and workability restrictions.

## 2.2 Subgrade 3a

Subgrade 3a land occurs in the south west of the site. Profiles are imperfectly drained, (falling in Wetness Class III) and typically consist of medium clay loam topsoils and upper subsoils overlying slowly permeable heavy clay loam subsoils at between 45cm and 50cm depth. The ALC grade of this land is limited by soil wetness and workability problems which are more restricting than on the Grade 2 land.,

## 2.3 Subgrade 3b

Land in this subgrade occurs in three separate areas in the north west, south west and east of the site. Profiles are poorly drained (falling in Wetness Class IV) and typically consist of medium clay loam topsoils overlying slowly permeable heavy clay loam subsoils at around 35cm depth. Soil wetness and workability problems are more limiting than on the adjoining Subgrade 3a land and restrict this land to Subgrade 3b.

## 2.4 Urban

This consists of a house in the east of the site.

## 2.5 Non Agricultural

This refers to a garden in the east.

RPT File: 2 FCS 6409  
Leeds Statutory Group

MAP