



Ministry of  
Agriculture  
Fisheries  
and Food

AGRICULTURAL LAND CLASSIFICATION  
BERWICK-UPON-TWEED  
BOROUGH LOCAL PLAN  
LAND AT BERWICK, NORTHUMBERLAND

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ADAS  
Leeds Statutory Group

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## SUMMARY

A detailed Agricultural Land Classification survey of 7.02 ha of land adjoining the A698 at Berwick-Upon-Tweed was carried out in September 1995.

At the time of the survey 6.9 ha of this was in agricultural use, of which 2.8 ha falls in Subgrade 3a. This land lies to the west of the site and consists of imperfectly drained (Wetness Class III) medium clay loam topsoils over similar permeable upper subsoils in turn over slowly permeable clay lower subsoils. Soil wetness limits this land to Subgrade 3a. The remaining agricultural land (4.1 ha) falls into Subgrade 3b. The soils are poorly drained (Wetness Class IV) consisting of medium clay loam topsoils over gleyed slowly permeable clay subsoils. Severe soil wetness and workability restrictions limit this land to Subgrade 3b.

Urban and Non-Agricultural land occupy 0.1 and 0.02 ha respectively.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT BERWICK-UPON-TWEED, NORTHUMBERLAND FOR BERWICK-UPON-TWEED BOROUGH LOCAL PLAN

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies 1½ km south-west of Berwick town centre directly north of the A698. It is centred around National Grid Reference NT984522. The site (7.02 ha) was surveyed in September 1995 when soils were examined by hand auger borings at 100m intervals at points predetermined by the National Grid. Supplementary borings were also made to refine grade boundaries. Two soil inspection pits were dug to allow the soils to be described in greater detail. 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 the survey all of the agricultural land was in cereal stubble. The remaining land consists of a private house and gardens. Site altitude varies from 15m AOD to 25m AOD and the land is level to moderately sloping (0-6°)

1.3 Climate

Grid Reference	: NT984522
Altitude (m)	: 15
Accumulated Temperature above 0°C (January - June)	: 1312 day °C
Average Annual Rainfall (mm)	: 631
Climatic Grade	: 1
Field Capacity Days	: 161
Moisture Deficit (mm) Wheat	: 99
Moisture Deficit (mm) Potatoes	: 87

#### 1.4 Geology, Soils and Drainage

The site is underlain by Lower Carboniferous Cementstone, and is overlain by a drift cover of till.

Soils to the centre and east of the site are poorly drained (Wetness Class IV) and consist of medium clay loam topsoils over gleyed slowly permeable clay subsoils. The remaining soils to the west of the site consist of medium clay loam topsoils over similar permeable upper subsoils, in turn over slowly permeable clay lower subsoils. These soils are imperfectly drained, falling in Wetness Class III.

The soils on the site correspond to the Nercwys Association as mapped by the Soil Survey and Land Research Centre.

## 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	2.8	39.9
3b	4.1	58.4
4		
5		
(Sub total)	(6.9)	(98.3)
Urban	0.02	0.3
Non Agricultural	0.1	1.4
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(0.12)	(1.7)
<b>TOTAL</b>	<u>7.02</u>	<u>100</u>

## 2.1 Subgrade 3a

Subgrade 3a land occurs in the west of the site. The soils are imperfectly drained (Wetness Class III) with very slightly stony (1-5% small and medium hard subrounded stones) medium clay loam topsoils over ungleyed very slightly stony (1% small and medium hard subrounded stones) permeable medium and heavy clay loam upper subsoils. Lower subsoils consist of red slowly permeable stoneless clay. The slowly permeable layer begins at 50cm depth. This land is limited to Subgrade 3a by moderate soil wetness and workability restrictions.

## 2.2 Subgrade 3b

The remaining agricultural land falls into this Subgrade. The soils are poorly drained (Wetness Class IV) with very slightly stony (1-4% small and medium subrounded hard stones) medium clay loam topsoils over gleyed, stoneless, slowly permeable clay subsoils. The slowly permeable layer begins at 30cm to 35 cm depth. This land is limited to subgrade 3b by severe soil wetness and workability restrictions.

## 2.3 Non-Agricultural

This category consists of a strip of private gardens located centrally.

## 2.4 Urban

This category consists of a private dwelling located along the eastern edge of the site.

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MAP