MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
DARLINGTON BC LOCAL PLAN
ALC OF OBJECTORS SITES 7 & 14
COUNTY DURHAM
SEPTEMBER 1995

ADAS
Leeds Statutory Group

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SUMMARY

Detailed Agricultural Land Classification surveys of two sites (Objector Sites 7 & 14, Darlington B.C. Local Plan) were carried out in September 1995. The following table summarises the grades for the two sites.

Site Grade Areas (ha)

	Grade 2	Subgrade 3a	Subgrade 3b	Urban	Total (ha)
7	5.8		1.3	0.3	7.4
14		7.2	14.0		21.2

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AGRICULTURAL LAND CLASSIFICATION REPORT FOR DARLINGTON BC LOCAL PLAN - ALC OF OBJECTORS SITES 7 & 14

1. INTRODUCTION

1.1 Location and Survey Methods

Site 7 lies 3½km north-east of Darlington town centre and Site 14 lies 3½km north-west of the town centre. Agricultural Land Classification (ALC) surveys of each site were carried out in September 1995. Although ADAS Statutory had originally been commissioned to carry out the surveys in June 1995, the work was delayed on these two sites until after harvest, at the request of the occupiers.

The soils on each site were examined by hand auger borings at 100m intervals pre-determined by the National Grid, and soil profile pits were dug to allow the soil to be described in greater detail. All 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).

2.1 SITE 7, GREAT BURDON FARM, GREAT BURDON

2.1.1 Location

The site lies 3½km north-east of Darlington town centre, at Great Burdon. It covers 7.4 ha.

2.1.2 Land Use and Relief

At the time of the survey the majority of the land was under cereal stubble, with a small area to the north-west under permanent grass. Site altitude varies from 48m AOD to 51m AOD and the land is level to gently sloping (0-3°)

2.1.3 Climate

Grid Reference	: NZ321167
Altitude (m)	: 50
Accumulated Temperature above 0°C (January - June)	: 1324 day °C
Average Annual Rainfall (mm)	: 627
Climatic Grade	: 1
Field Capacity Days	: 151
Moisture Deficit (mm) Wheat	: 99
Moisture Deficit (mm) Potatoes	: 87

2.1.4 Geology, Soils and Drainage

The site is underlain by Upper Permian Marls, over which lie glacial sand and gravel to the north, till in the south and a small area of "made ground" in the north-west.

The majority of the soils lying centrally and in the north are well drained (Wetness Class I) with medium sandy loam topsoils over medium sandy loam and loamy medium sand subsoils. Soils to the south are moderately to imperfectly drained (Wetness Class II and III) and consist of medium sandy loam topsoils over gleyed sandy clay loam upper subsoils and slowly permeable heavy clay loam lower subsoils. The remaining 'made ground' soils in the north-west consist of 20 cm of medium clay loam topsoil over overburden.

2.1.5 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	5.8	78.4
3a		
3b	1.3	17.6
4		
5		
(Sub total)	(7.1)	(96.0)
Urban	0.3	4.0
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(0.3)	(4.0)
TOTAL	7.4	100

2.1.6 Grade 2

The majority of this site falls in Grade 2. Soils lying centrally and in the north are well drained (Wetness Class I) with very slightly stony (2% total hard stones) medium sandy loam topsoils over slightly stony (15% total hard stones) loamy medium sand subsoils. This land is limited to Grade 2 by slight soil droughtiness.

The remaining soils to the south consist of moderately to imperfectly drained (Wetness Class II and III) soils with very slightly stony (2% total hard stones) medium sandy loam topsoils over gleyed permeable sandy clay loam subsoils in most cases, although in places slowly permeable heavy clay loam subsoils occur. The slowly permeable layer begins at between 50 and 60 cm depth where it occurs. This land is limited to Grade 2 by slight soil wetness.

2.1.7 Subgrade 3b

The remaining agricultural land on the site falls into this Subgrade. Soils consist of very slightly stony medium clay loam topsoils over overburden at between 20 cm and 25 cm depth. This land is limited to Subgrade 3b by soil depth and severe soil droughtiness restrictions.

2.1.8 Urban

Urban land consists of a road running through the site.

MAP

2.2 SITE 14, EAST OF THE A1(T), BRANKSOME

2.2.1 Location

Site 14 lies approximately 3½km north west of Darlington centre, directly east of the A1(T). It covers 21.2 ha.

2.2.2 Land Use and Relief

At the time of the survey all of the site was under cereal stubble.

Site altitude varies from 50m AOD to 60m AOD, and the land is level to moderately sloping (0-4°).

2.2.3 Climate

Grid Reference	: NZ256160
Altitude (m)	: 55
Accumulated Temperature above 0°C (January - June)	: 1321 day °C
Average Annual Rainfall (mm)	: 637
Climatic Grade	: 1
Field Capacity Days	: 158
Moisture Deficit (mm) Wheat	: 99
Moisture Deficit (mm) Potatoes	: 87

2.2.4 Geology, Soils and Drainage

The whole of the site is underlain by Middle Magnesian Limestone, with a covering of boulder clay. The soils are imperfectly to poorly drained (Wetness Class III and IV), with medium clay loam, sandy clay loam and occasional heavy clay loam topsoils, over similar gleyed upper subsoils, in turn over gleyed slowly permeable heavy clay loam and clay lower subsoils.

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

2.2.5 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	7.2	34.0
3b	14.0	66.0
4		
5		
(Sub total)	(21.2)	(100.0)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	21.2	100

2.2.6 Subgrade 3a

A band of Subgrade 3a land runs centrally east to west across the site. Soils consist of imperfectly drained (Wetness Class III), slightly stony (6% total hard stones) sandy clay loam topsoils over slightly stony (15% total hard stones) gleyed, permeable sandy clay loam upper subsoils, in turn over gleyed slowly permeable heavy clay loam lower subsoils. The slowly permeable layer begins at between 45 cm and 50 cm depth. This land is limited to Subgrade 3a by moderate soil wetness restrictions.

2.2.7 Subgrade 3b

The remaining land falls into this Subgrade. The soils are poorly drained (Wetness Class IV), with very slightly stony (4% total hard stones) sandy clay loam topsoils over gleyed permeable sandy clay loam upper subsoils, in turn over gleyed slowly permeable heavy clay loam lower subsoils. The slowly permeable layer begins at 40 cm depth and this land is limited to Subgrade 3b by severe soil wetness and workability restrictions.

MAP