AGRICULTURAL LAND CLASSIFICATION

NEWCASTLE UDP

WESTERN DEVELOPMENT AREA

MAFF
Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:	NZ 175 680
Location Details:	The site lies between the A69 and the B6234 on the western edge of Newcastle
Site Size:	173 hectares

1.2 Survey Methods

Date Surveyed:	September 1991
Boring Density and Spacing Basis:	At 100 m intervals on a grid pattern predetermined by the national grid.
Sampling Method:	By hand auger borings to a depth of 1 metre.
Number of Borings:	176

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)".

1.3	Land Use:	Most land is in arable use with some areas of permanent pasture and woodland.
1.4	Climate and Relief:	
	Average Annual Rainfall (AAR):	693 mm
	Accumulated Temperature above 0°C (January-June):	1265 day °C
	Field Capacity Days:	175 days
	Altitude average:	85 m a.o.d.
	maximum:	105 m a.o.d.
	minimum:	75 m a.o.d.
	Climatic limitation (based on interaction of rainfall and temperature values:	Grade 2
	Relief:	Overall mainly gentle slopes from south east to north west
	Slopes (°):	0-5°
	Gradient Limitations:	none

1.5 Geology and Soil

Solid Strata:	Coal measures.
Depth of solid rock from surface:	Generally more than 1 metre.
Drift types:	Boulder clay.
Thickness of drift and distribution	Drift is more than 1 metre thick over the whole area except near Northumberland Gardens in the south and east of Fell House in the centre of the site where land has been restored after mineral working. In both these areas thin soils overlie restored Coal Measure Overburden.
Soil Type and Distribution:	Poorly drained heavy boulder clay soils cover most of the site. There are also localised areas of medium to light land.
Soil Textures (topsoils and subsoils):	Medium clay loams over heavy clay loams or clay are predominant. Sandy loam topsoils occur locally near Northumberland Gardens.
Soil Series/Associations:	
On 1/25000 map:	Dunkeswick
Identified on site:	Dunkeswick

1.6 Drainage

Soil Type and Wetness Class:	Medium and heavy soils: poorly drained (Wetness Class IV with some areas of Wetness Class III)
Drainage Limitations:	Slowly permeable subsoils causing surface wetness.

2.0 Agricultural Land Classification Grades

The ALC grades occurring on the site are as follows:

Grade/Subgrade	Hectares	Percentage of Agricultural Area	Percentage of Total Area
3a	22.4	14.4	13.0
3b	132.8	85.6	76.9
Non Agricultural	8.5		4.9
Agricultural Buildings	0.9		0.5
Urban	8.2		4.7
Total	172.8	100.00	100.00

Subgrade 3a

Distribution on site:	Three areas scattered across the site
Soil Type(s) and Texture(s):	Medium clay loam or occasionally sandy loam topsoils over similar upper subsoils passing to heavy clay loam or clay at depth.
Depth to Slowly Permeable Layers:	50-70 cm.
Wetness and Drainage Class:	Wetness Class III (imperfectly drained).
Grade Limiting Factors:	Soil wetness and workability problems.

Subgrade 3b

Distribution on site:	Widespread in all parts of the site.
Soil Type(s) and Texture(s):	Boulder clay soils consisting of medium clay loam topsoils over heavy clay loam or clay subsoils.
Depth to Slowly Permeable Layers:	30-45 cm
Wetness and Drainage Class:	Wetness Class IV (poorly drained)
Grade Limiting Factors:	Soil wetness and workability problems.

Non Agricultural

Type and location of land included:	Farm woodland and unused wetland areas.

Agricultural Buildings

Type and location of building included:	Farm house and out buildings at Fell House Farm.

Urban

Type of land use included:	Roadways and a large area of old mine workings in the north of the site.

Resource Planning Group
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