



# FARMING AND RURAL CONSERVATION AGENCY

An Executive Agency of the Ministry of Agriculture, Fisheries and Food and the Welsh Office

# TYNEDALE DISTRICT LOCAL PLAN (LAND AT BEAUFRONT ROAD, HEXHAM)

Agricultural Land Classification (ALC) Map and Report

NOVEMBER 1997

Resource Planning Team Northern Region FRCA, Leeds RPT Job Number:29/97MAFF Reference:EL 10046LURET Job Number:ME1ANWO

#### AGRICULTURAL LAND CLASSIFICATION REPORT

## TYNEDALE DISTRICT LOCAL PLAN (LAND AT BEAUFRONT ROAD, HEXHAM)

## INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 13.6 ha of land at Beaufront Road, Hexham. This site lies on the north bank of the River Tyne.

2. The survey was carried out by the Farming and Rural Conservation Agency (FRCA) for the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with the proposal to include this area in the Tynedale District Local Plan. This ALC survey supersedes any previous ALC information for this land.

3. The work was conducted by members of the Resource Planning Team in the Northern Region of FRCA. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.

4. At the time of survey the land on the site was all down to grass.

#### **SUMMARY**

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:5,000. It is accurate at this scale but any enlargement would be misleading.

6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Grade/Other land	Area (hectares)	% surveyed area	% site area
1			
2	13.6	100.0	100.0
3a			
3b			
4			
5			
Agricultural land not surveyed		N/A	
Other land		N/A	
Total surveyed area	13.6	100	
Total site area	13.6	-	100

7. The fieldwork was conducted at an average density of one boring per hectare. A total of fourteen borings and one soil pit were described.

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8. All land on this site was Grade 2. Topsoils were medium sandy loam over similar or loamy medium sand subsoils. Profiles are freely drained but suffer from a slight droughtiness limitation placing this land in Grade 2.

#### FACTORS INFLUENCING ALC GRADE

## Climate

9. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

10. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5 km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Factor	Units	Values
Grid reference	N/A	NY 951 645
Altitude	m, AOD	30
Accumulated Temperature	day <sup>o</sup> C (Jan-June)	1334
Average Annual Rainfall	mm	663
Field Capacity Days	days	176
Moisture Deficit, Wheat	mm	96
Moisture Deficit, Potatoes	mm	84
Overall climatic grade	N/A	Grade 1

Table 2: Climatic and altitude dat	Table 2	2: Cli	matic	and	altitude	data	
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11. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

12. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (ATO, January to June), as a measure of the relative warmth of a locality.

13. The combination of rainfall and temperature at this site means that there is no overall climatic limitation.

## Site

14. The land on the site is level except for a few small depressions probably relating to old river channels.

#### **Geology and soils**

15. The site is underlain by Upper Carboniferous Limestone (BGS, Sheet 19). This is covered with thick deposits of alluvium and river terrace. Soils reflect the parent material. Topsoils are stoneless medium sandy loams and subsoils similar or a stoneless loamy medium sand. Lower subsoils are occasionally a sand and gravel which is sometimes encountered below 85 cm depth. All profiles are freely drained and Soil Wetness Class I.

16. Soils on the site are mapped as and correspond with the Wharfe association (Soils of England and Wales, Sheet 1).

## AGRICULTURAL LAND CLASSIFICATION

17. The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1, page 1.

#### Grade 2

18. This grade covers the whole site. Medium sandy loam topsoils overlie loamy medium sand or medium sandy loam subsoils. Sand is often found in the lower subsoil and gravel is occasionally encountered at depths of over 85 cm. Profiles are freely drained and Soil Wetness Class I. Slight soil droughtiness limits the ALC grade of this land

RPT File: 20,187 Resource Planning Team Northern Region FRCA, Leeds

## SOURCES OF REFERENCE

British Geological Survey (1975) Sheet No. 19, Hexham, Solid Geology BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land. MAFF: London.

Met. Office (1989) Climatological Data for Agricultural Land Classification. Met. Office: Bracknell.

Soil Survey of England and Wales (1983) Sheet 1, Soils of England and Wales, 1:250,000 scale. SSEW: Harpenden.

Soil Survey of England and Wales (1984) Soils and their Use in Northern England SSEW: Harpenden

## **APPENDIX I**

# DESCRIPTIONS OF THE GRADES AND SUBGRADES

## Grade 1: Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

# Grade 2: Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

# Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

# Subgrade 3a: Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

# Subgrade 3b: Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

# Grade 4: Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

# Grade 5: Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.