

**EASINGTON DISTRICT LOCAL PLAN  
LAND AT SEAHAM**

**Agricultural Land Classification (ALC)  
Report and Map**

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**Resource Planning Team  
Northern Region  
FRCA, Leeds**

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**AGRICULTURAL LAND CLASSIFICATION REPORT**  
**EASINGTON DISTRICT LOCAL PLAN, LAND AT SEAHAM**

**INTRODUCTION**

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 9.1 ha of land at Seaham. The survey was carried out during February 1999.
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 Easington District Local Plan.
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 contained oil seed rape stubble and weeds.

**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.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
3b	9.1	100	100
Agricultural land not surveyed		N/A	
Other land		N/A	
Total surveyed area	9.1	100	-
Total site area	9.1	-	100

7. The fieldwork was conducted at an average density of one boring per hectare. A total of 9 borings and one soil pit were described.
8. All the site was classified as Subgrade 3b with soil wetness and workability limiting ALC grade.

## 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).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	NZ 404 496
Altitude	m, AOD	75
Accumulated Temperature	day°C (Jan-June)	1279
Average Annual Rainfall	mm	658
Field Capacity Days	days	161
Moisture Deficit, Wheat	mm	93
Moisture Deficit, Potatoes	mm	79
Overall climatic grade	N/A	Grade 2

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 (AT0, January to June), as a measure of the relative warmth of a locality.

13. The combination of rainfall and temperature at this site means there is an overall climatic limitation of Grade 2.

### Site

14. The site has an easterly aspect with moderate slopes.

### Geology and soils

15. Soils on the site are derived from till which overlies deposits of Magnesian Limestone and associated barrier reef deposits (BGS Sheet 21). Soils were rather variable. Mostly they comprised a heavy clay loam topsoil over a clayey, slowly permeable subsoil and were Wetness Class IV. Occasionally profiles were observed with a medium clay loam topsoil over a similar textured subsoil that was generally gleyed and occasionally became slowly permeable. These soils were typically Wetness Class II or III.

## AGRICULTURAL LAND CLASSIFICATION

16. 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.

### *Subgrade 3b*

17. All the site was classified as Subgrade 3b. Profiles were generally Wetness Class IV with a medium or heavy clay loam topsoil. These characteristics impose a Subgrade 3b soil wetness and workability limitation. Some profiles were observed that were better drained but they were in a minority on the site and were not found in mappable units.

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## SOURCES OF REFERENCE

British Geological Survey (1978) *Sheet No. 21, Sunderland, Solid and Drift Geology, 1:50,000 scale*. 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.

[ALC Map]

## 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.