HARROGATE GOLF CLUB EXTENSION

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

HARROGATE GOLF CLUB EXTENSION

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 22.6 ha of land adjacent to the Harrogate Golf Club.

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 extend the golf club. Survey work was carried out in January 1999.

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 agricultural land on the site was all under grass. Other land comprised wetland and farm buildings.

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
1			
2			
3a			
3b	20.9	100	92.5
4			
5			
Agricultural land not surveyed		N/A	
Other land	1.7	N/A	7.5
Total surveyed area	20.9	100	-
Total site area	22.6	-	100

7. The fieldwork was conducted at an average density of one boring per hectare. A total of 22 observations and one soil pit were described.

Subgrade 3b

8. All agricultural land was Subgrade 3b. Soil wetness and workability problems limit the ALC grade.

Other land

9. This comprises an area of wetland south of the railway line and farm buildings in the north.

FACTORS INFLUENCING ALC GRADE

Climate

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

11. 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	SE 343 563
Altitude	m, AOD	70
Accumulated Temperature	day°C (Jan-June)	1327
Average Annual Rainfall	mm	734
Field Capacity Days	days	182
Moisture Deficit, Wheat	mm	94
Moisture Deficit, Potatoes	mm	81
Overall climatic grade	N/A	Grade 2

12. 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.

13. 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.

14. The combination of rainfall and temperature at this site means that there is an overall climatic limitation of Grade 2 on the site.

Site

15. Slopes are mostly gentle to moderate (2° to 6°), generally with an easterly aspect.

Geology and soils

16. The site is underlain by solid deposits of Magnesium Limestone. This is covered with a thick layer of boulder clay drift upon which soils are developed (BGS Sheet 62, 1967). Topsoils are typically medium clay loam. Occasionally they are a heavy clay loam. Subsoils are a gleyed, slowly permeable clay. Profiles are Wetness Class IV (poorly drained).

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.

Subgrade 3b

18. All agricultural land is Subgrade 3b. Medium clay loam topsoils typically overlie clay subsoils. These profiles are Wetness Class IV and ALC grade is restricted by a soil wetness and workability limitation. Profiles with a heavy clay loam topsoil meet the criteria for Grade 4. However, they did not occur in mappable units.

Other land

19. This comprises wetland and some farm buildings.

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SOURCES OF REFERENCE

British Geological Survey (1967) *Sheet No. 62, Harrogate, solid and drift geology, 1:63,360.* 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.