

Agricultural Land Classification
Golf Course Application
Blue House Farm
Marden
Kent

Resource Planning Team
Guildford Statutory Group

GOLF COURSE APPLICATION, BLUE HOUSE FARM MARDEN, KENT

Report of Survey

1 Introduction

In July 1992 an Agricultural Land Classification (ALC) was carried out on 54 hectares of land at Blue House Farm near Marden in Kent ADAS was commissioned by MAFF to determine the land quality affected by the application for planning permission for a private golf course

The work was conducted by members of the Resource Planning Team within the Guildford Statutory Group with approximately one soil observation per 2 hectares A total of 26 borings and 1 soil pit was described using MAFF's revised guidelines and criteria for grading the quality of agricultural land These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long term limitations on its use for agriculture

The distribution of the grades and subgrades is shown on the attached ALC map and the area of each grade is given in the Table below A map has been drawn at a scale of 1 10 000 the information is accurate at this level and any enlargement would be misleading

Subgrade 3B is the main grade on the site with a minor area of Subgrade 3A The poor quality of the land is related to the presence of upper subsoils of clay which cause a significant wetness limitation The areas of higher quality land identify soils with a less significant wetness limitation The application area contains less than 20 hectares of best and most versatile land

Table 1 Distribution of Grades and Subgrades

| <u>Grade</u> | <u>Area (ha)</u> | <u>% of Agricultural Area</u> |
|--------------|------------------|-------------------------------|
| 3A | 4.8 | 9 |
| 3B | 49.1 | <u>91</u> |
| Non Agric | 0.2 | 100% (53.9 ha) |
| Woodland | <u>1.9</u> | |
| Total | 56.0 ha | |

- 2 Climate The climatic criteria are considered first when classifying land. Climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable soil or site conditions.

The main parameters used in the assessment of the climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality.

A detailed assessment of the prevailing climate has been made by interpolation from a 5 km gridpoint dataset. The details of the interpolations are given in the table below. These show that there is no overall climatic limitation affecting the site. The area is climatically Grade 1.

Table 2 Climatic Interpolations

| Grid Reference | TQ765472 | TQ763460 |
|---------------------------------|----------|----------|
| Altitude (m) | 20 | 25 |
| Accumulated Temperature (°days) | 1488 | 1483 |
| Average Annual Rainfall (mm) | 657 | 658 |
| Field Capacity (days) | 136 | 136 |
| Moisture Deficit, Wheat (mm) | 125 | 125 |
| Moisture Deficit, Potatoes (mm) | 121 | 122 |

3 Agricultural Land Classification

- 3 1 Subgrade 3A A minor area of this Grade identifies soils with shallow gleying with slowly permeable horizons at approximately 45 cm. This, together with the topsoil texture Medium Clay Loam and the prevailing field capacity level (136 days) limits these soils to Subgrade 3A.

- 3 2 Subgrade 3B The majority of the survey area has been placed in this Grade with characteristic heavy and wet soils developed over Weald Clay. Slowly permeable horizons occur immediately below the topsoil which cause a significant wetness limitation limiting the range of crops that can tolerate such conditions and significantly reducing the number of days when the soil is in a suitable state for cultivation, trafficking by machinery or grazing by livestock. The soils are placed in Wetness Class IV which suggests that the soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years.

DESCRIPTION OF THE GRADES AND SUB-GRADES

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 include 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 and horticultural crops can usually be grown but on some land in the 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.

Grade 3 - good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where 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 level of yields. It is mainly suited to grass with occasional arable crops (eg 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 very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Descriptions of other land categories used on ALC maps

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture including housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land, all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including golf courses, private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply

Agricultural buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg polythene tunnels erected for lambing) may be ignored

Open water

Includes lakes, ponds and rivers as map scale permits

Land not surveyed

Agricultural land which has not been surveyed

Where the land use includes more than one of the above land cover types, eg buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will usually be shown