AGRICULTURAL LAND CLASSIFICATION

MANOR FARM, NORTH WALTHAM
HAMPSHIRE

ADAS

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RECONNAISSANCE SURVEY

1. Summary

1.1 92.0 ha of land to the south-west of North Waltham in Hampshire was inspected on the 24th and 25th of March and the 6th April 1992 in connection with a golf course proposal.
An Agricultural Land Classification (ALC) survey was carried out in accordance with the guidelines and criteria outlined in the MAFF publication 'Agricultural Land Classification of England and Wales' (MAFF, 1988). These guidelines provide a framework for classifying land according to the degree to which its physical or chemical characteristics impose long term limitations on agricultural use.

1.2 21 auger boring samples were examined on the basis of a 200 m grid. Further information was obtained from 2 soil inspection pits. On 6th April, an additional 16 topsoil pits were used to assess topsoil stone contents.
At the time of survey, the land was in winter or spring cereals.

1.3 The results of the survey are presented on the accompanying coloured plan at a scale of 1:10,000. The plan is accurate only at this scale and any enlargement would be misleading. Grades 3a and 3b have been mapped, the areas and extent are given below.

	Area (ha)	% total agricultural area
Grade 3a	52.7	57
3b	39.3	43
Total area surveyed	92.0	

1.4 A general description of the grades and sub-grades identified in this survey is attached at Appendix 1.

1.5 Land on this site slopes moderately towards the south and south-east. Land at an altitude greater than 162 m has an overall climatic limitation. The combination of relatively low accumulated temperature and high average annual rainfall cause land above 162 m to be limited to a maximum ALC grade 2.
Soils typically comprise medium or heavy silty clay loam topsoils over subsoils of similar texture or, more commonly, silty clay. These well drained soils rest over Cretaceous Upper Chalk at variable depths, the shallowest profiles tending to occur across the mid-upper slopes. All profiles are slightly to moderately stony throughout, containing mainly flints but also some chalk stones.

1.6 The land on this site is limited by a number of factors which may act in combination, namely topsoil stone contents, droughtiness workability, and/or climate (as described in Section 1.5).
The overriding limitation is that of slight to moderate topsoil stone contents typically in the range 11-20% flints and chalk stones >2 cm. This imposes a moderate to severe restriction on agricultural use in terms of the effects on crop establishment and growth, and wear of farm machinery. Land may also be affected by either moderate droughtiness or slight to moderate workability limitations, in combination with that of topsoil stones. A moderate drought limitation arises from relatively shallow soil depth over chalk combined with slight to moderate profile stoniness. The whole site suffers from a slight to moderate workability limitation resulting from the combination of climatic factors, (ie. >176 field capacity days) and relatively heavy topsoil textures.
All land on the site is subject to one or more of these limitations, the relative severity of which determines whether it is mapped as grade 3a or 3b.

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APPENDIX 1

DESCRIPTION OF THE GRADES AND SUBGRADES

The ALC grades and subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level and consistency of yield. In practice, the grades are defined by reference to physical characteristics and the grading guidance and cut-offs for limitation factors in Section 3 enable land to be ranked in accordance with these general descriptions. The most productive and flexible land falls into Grades 1 and 2 and Subgrade 3a and collectively comprises about one-third of the agricultural land in England and Wales. About half the land is of moderate quality in Subgrade 3b or poor quality in Grade 4. Although less significant on a national scale such land can be locally valuable to agriculture and the rural economy where poorer farmland predominates. The remainder is very poor quality land in Grade 5, which mostly occurs in the uplands.

Descriptions are also given of other land categories which may be used on ALC maps.

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 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: 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.

Woodland

Includes commercial and non-commercial woodland. A distinction may be made as necessary between farm and non-farm woodland.

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.