

AGRICULTURAL LAND CLASSIFICATION

RAKES MOOR (AREA 4)  
BARROW IN FURNESS OUTER BOROUGH PLAN

ADAS  
LEEDS REGIONAL OFFICE

MAY 1989  
REF: 2FCS 4185/47/87

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### Report on land at Rakes Moor (Area 4), Barrow in Furness Outer Borough Plan

#### 1.0 INTRODUCTION

An area of 283 hectares around Rakes Moor, National Grid Reference SD 210730 was surveyed in late May 1989. Rakes Moor which is about 4 km north of Barrow town centre is bounded by Park Road to the north, east and west and by the residential area of Hawcoat to the South. Except for a small area at Hawcoat all agricultural land within this area was surveyed. Soils were examined using a hand auger to a depth of one metre at points predetermined by the National Grid. The density of borings was approximately one per hectare. Profile pits were dug where necessary to collect additional data on soil morphology.

Land quality assessments were made using the revised guidelines published by MAFF in 1988.

#### 1.1 LAND USE

The farmland is predominantly in grassland use. All other important land uses are non agricultural or urban and include the Barrow Golf Course, the playing fields at Rakes Moor and the mixed industrial, derelict and woodland areas along Park Road north of the golf course.

#### 1.2 CLIMATE

Average annual rainfall at Rakes Moor is estimated to be 1109 mm and the median accumulated temperature above 0<sup>o</sup> (January to June) is 1357 day<sup>o</sup>C. The land is at field capacity for 245 days each year. Although these factors indicate a climatic limitation of grade 2, wind exposure will increase this limitation. In common with all land around Barrow, exposure to the prevailing westerly wind is likely to cause stress in cattle and lodging of cereal crops. For these reasons a further overall climatic limitation of subgrade 3a has been applied to the whole area.

### 1.3 RELIEF

Relief is generally moderately undulating although some slopes near the golf course and around Millwood Bridge are strong ( $8^{\circ}$  to  $11^{\circ}$ ). Altitude ranges from about 30 m a.o.d. along the western edge of the Golf Course to over 80 m a.o.d. near Hawcoat.

### 1.4 GEOLOGY, SOILS AND DRAINAGE

Soils are developed on drift deposits which form a thick cover over the underlying red Triassic sandstones. Sandstone occurs at less than one metre from the surface in only a few places.

The drift consists almost entirely of reddish fine loamy and clayey, occasionally stony boulder clay. Other deposits such as alluvium along streams are of minor importance. Topsoils on the boulder clay consist, usually, of medium clay loam over subsoils of reddish, clayey, slowly permeable material. Although stoniness is common to most profiles it is rarely limiting.

Soil wetness is the main factor limiting ALC grade across the whole survey area. Because of the slowly permeable subsoil horizons, almost all soils meet the criteria for Wetness Class IV. Better drained profiles (Wetness Classes I and II) are found only near Brest Mill Beck. Wetter, heavier soils (Wetness Class V), are widespread only in two areas east and north east of Rakes Moor Farm and adjoining Bouth Wood.

### 1.5 AGRICULTURAL LAND CLASSIFICATION

Grade	Area (hectares)	% of total area
3a	19.9	7.0
3b	171.9	60.6
4	11.9	4.2
Non Agricultural	52.3	18.5
Urban	17.1	6.0
Not Surveyed	<u>10.4</u>	<u>3.7</u>
Total	<u>283.5</u>	<u>100.0</u>

#### 1.5.1 Subgrade 3a

The 3 areas of subgrade 3a land along the eastern boundary all contain soils within medium sandy loam top and subsoils. There is little or no gleying above 70 cm and profiles fall mainly within Wetness Class II. Soils of this type are restricted to subgrade 3a by slight wetness problems in addition to the overall 3a wind exposure limitation.

#### 1.5.2 Subgrade 3b

This subgrade is dominant at Rakes Moor and consists largely of medium and heavy textured boulder clay soils in Wetness Class IV limited by wetness and workability problems.

#### 1.5.3 Grade 4

The two larger areas of grade 4 along with the land adjoining Bouth Wood all suffer from severe soil wetness limitations (Wetness Class V). The remaining area of grade 4 near Abbey House is limited by slopes of between  $12^{\circ}$  and  $18^{\circ}$ .

#### 1.5.4 Non Agricultural

Most of the land in this category consists of the golf course. It also includes the playing fields adjoining Windermere Avenue and some woodland near Park Road.

#### 1.5.5 Urban

Derelict land and industrial areas along Park Road are included in this category.

#### 1.5.6 Land not surveyed

Access could not be obtained to this area at Hawcoat. It is very unlikely, however, to be better than subgrade 3b.

#### Reference

Revised guidelines and criteria for grading the quality of agricultural land, MAFF (1988).

Resource Planning Group  
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