AGRICULTURAL LAND CLASSIFICATION

# BEACON HILL (SITE 1) BARROW IN FURNESS OUTER BOROUGH PLAN

ADAS LEEDS REGIONAL OFFICE

DECEMBER 1988 FILE REF: 2250 MAP REF: 47/87

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## 1. AGRICULTURAL LAND CLASSIFICATION

REPORT ON BEACON HILL (SITE 1), BARROW-IN-FURNESS OUTER BOROUGH PLAN

## INTRODUCTION

This 116 hectare site is located around National Grid Reference SD220710 on the eastern side of Barrow-in-Furness, Cumbria.

Survey work was carried out in April 1988 when soils were examined by hand auger borings at points pre-determined by the National Grid. The overall boring density was approximately one boring per hectare, except for an area of approximately 16 hectares at the northern end of the site where access was refused.

All assessments of land quality were made using the Revised Agricultural Land Classification System of England and Wales (MAFF 1988).

## LAND USE

Most of the site is under arable or grassland use. The remaining, non agricultural land, consists largely of playing fields, allotment gardens and public open space.

#### CLIMATE

The Average Annual Rainfall in the area is approximately 1003 mm (39.5 inches). Median Accumulated Temperature above 0<sup>0</sup>C (January to June) is 1404<sup>0</sup>C and the Median Duration of Field Capacity is approximately 228 field capacity days.

These characteristics result in an overall climatic limitation of Grade 2.

1 1ds.alc4.Beacon.Hill Moisture deficits of 75 mm for wheat and 72 mm for potatoes are low and do not result in a droughtiness limitation for coarse textured soils with low amounts of available water.

#### RELIEF

The site consists of an undulating ridge between the railway and Flass Lane. Slope is not limiting except in small areas adjoining Mill Beck and Park House Farm where gradients frequently exceed 11<sup>0</sup>.

#### GEOLOGY AND SOILS

The site contains drift deposits which form a thick cover over the underlying Triassic Sandstones. In the higher northern and western parts of the site the drift consists largely of glaciofluvial sand and gravel. The low ground south and east of Beacon Hill, however, is covered by marine alluvium which occurs as tongue running up the valley from the sea at Roosecote.

Soils reflect the geological pattern. In the north they consist mainly of fine and medium sandy loam topsoils over similar subsoils. Although many of these are gleyed at less than 80 cm depth they still fall within wetness class 1 because of the coarse textured nature of the subsoil.

South of Beacon Hill, soils are variable but frequently consist of sandy clay loam or clay loam topsoils over gleyed similar subsoils. These occasionally pass into clay at depth. The presence of slowly permeable subsoils places these soils within wetness classes 3 and 4.

## AGRICULTURAL LAND CLASSIFICATION GRADES

Grade	Hectares	Percentage of total agricultural land surveyed
За	28.2	33 <b>Z</b>
3b	43.5	512
4	4.3	5 <b>z</b>
5	9.2	112
Not Surveyed	13.3	-
Urban	1.0	-
Non Agricultural	14.5	~
Agricultural Buildings	2.0	
		100 <b>z</b>

The ALC grades occurring on this site are as follows;

## SUBGRADE 3A

Subgrade 3A land is restricted largely to the northern part of the site where soils consist of deep sandy loams in wetness class 1. This is good quality land restricted only by its situation in an exposed elevated position close to the sea.

## SUBGRADE 3B

Subgrade 3B land covers much of the site. Soils consist of sandy loam and sandy clay loam topsoils over similar subsoils which become heavier with depth. The presence of gleyed slowly permeable subsoil horizons places these soils in wetness classes 3 and 4. This, in combination with poor soil workability, is the main limitation on ALC grade.

## GRADE 4

Two areas of grade 4 land occur on steep slopes west of the railway. Although soils are similar to those in subgrade 3b, slopes of 11<sup>0</sup> limit this land to Grade 4.

## GRADE 5

Grade 5 land occurs on each side of the railway near the southern end of the site. Soils consist only of a thin organic layer overlying cinders and industrial waste. In places this material contains high levels of toxic heavy metals and for this reason is downgraded to 5.

NOT SURVEYED

Access was refused for the area at the northern edge of the site.

#### URBAN

This consists of housing, at the south east end of the site adjacent to Yarlside Road.

NON AGRICULTURAL

The Non Agricultural land contains playing fields, allotment gardens, and public open space.

AGRICULTURAL BUILDINGS

This includes Park House Farm and the Bridgegate Small holdings.