AGRICULTURAL LAND CLASSIFICATION

Park House Farm, Birkin, Knottingley

MAFF

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#### AGRICULTURAL LAND CLASSIFICATION

### PARK HOUSE FARM, BIRKIN KNOTTINGLEY

#### Introduction

This 129.6 hectare site is located at Grid Reference SE 520262 about 2 km south west of Knottingley, near the village of Birkin in North Yorkshire. Soils were examined by hand auger borings to a depth of 120 cm at 134 points predetermined by the National Grid. The density of borings was approximately one per hectare. In addition 3 soil profile pits were dug to provide further information on soil characteristics.

### Climate and Relief

Salient climatic parameters at the site are as follows:-

Average Annual Rainfall (mm)	606
Accumulated Temperature above 0°C (Jan-June)	1407
Field Capacity Days	128
Moisture Deficit (mm) Wheat	107
Potatoes	100

The rainfall and temperature figures indicate that there is no overall climatic limitation on ALC grade although light textured soils will be droughty. The site is level at about 10 m a.o.d.

## Geology, Soils and Drainage

Soils are developed upon thick glaciofluvial sandy drift and near the River Aire, clayey alluvium. The sandy drift has produced light textured soils with no drainage or soil wetness limitation. Topsoils and subsoils are usually formed of medium sandy loam or occasionally loamy medium sand. These profiles are, however, slightly droughty. The remaining alluvial soils are heavy textured with a soil wetness and workability limitation. Topsoils usually consist of medium or heavy clay or silty clay loam over a clayey slowly permeable subsoil (Wetness Class IV).

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## Grade 2 (75.1 ha, 58% of total area)

All the grade 2 land is free from any significant topsoil wetness or workability limitation (Wetness Classes I to III).

The light sandy loam topsoils can be worked for long periods of the year. Slight droughtiness however prevents this land from being placed higher than Grade 2.

## Subgrade 3a (18.1 ha, 14% of total area)

The areas included in this subgrade are similar in character to the grade 2 land. More severe droughtiness or significant soil wetness limitations however, restrict these soils to subgrade 3a.

## Subgrade 3b (26.9 ha, 20.8% of total area)

The 3b land north of Birkin Lane contains loamy sand top and subsoils and is limited to subgrade 3b by droughtiness. Towards the River Aire heavy textured alluvial soils with a clayey, slowly permeable subsoil occur. Here, soil wetness and workability problems are the principal limiting factors.

Non Agricultural (1.6 ha, 1.2% of total area)

This includes recently excavated land adjacent to a drainage ditch.

Farm Woodland (6.9 ha, 5.3% of total area)

Two areas of woodland occur on the site.

Agricultural Buildings (0.9 ha, 0.7% of total area)