MAFF Ministry of Agriculture Fisheries and Food

# AGRICULTURAL LAND CLASSIFICATION
# ANNIGATE, WYNYARD, CLEVELAND
# PROPOSED ELECTRONICS COMPONENTS PARK
# NOVEMBER 1994

ADAS
Leeds Statutory Group
2FCS 10305

Job No:- 122/94
MAFF Ref:- EL 10545
Commission 1435

2FCS 10305

## SUMMARY

172.5 hectares of land at Annigate, Wynyard were surveyed in detail in November 1994.

8.1 hectares were of Grade 2 quality and found alongside the North Burn. Soils were medium textured and limited by slight soil wetness problems.

Subgrade 3a covers 4.1 hectares to the south-east of the site. Top and upper subsoils are medium textured over a slowly permeable clayey lower subsoil. Again soil wetness limits the ALC grade.

The majority of the site was graded 3b (146.4 hectares). Topsoils are medium to heavy textured over a clayey, slowly permeable subsoil. A severe soil wetness and workability restriction limits this land to Subgrade 3b.

Grade 4 covers 7.8 ha and contains land limited by slope.

Non Agricultural, woodland and farm buildings occupy 1.0, 3.8 and 1.3 hectares respectively.

CONTENTS



MAP

# AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT ANNIGATE, WYNYARD, CLEVELAND PROPOSED ELECTRONICS COMPONENT PARK..

## 1. INTRODUCTION AND SITE CHARACTERISTICS

### 1.1 Location and Survey Methods.

The site lies approximately 3km north west of Billingham and immediately west of the A19(T). It has a centroid grid reference of NZ 448 273. Detailed survey work was carried out in early November 1994 when soils were examined using hand auger borings at a density of one boring per hectare at points predetermined by the National Grid. Five soil profile pits were also dug to examine the soil in more detail and to collect samples for laboratory analysis. Land quality was assessed using the methods described in "Agricultural Land Classification of England and Wales, Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

### 1.2 Land Use and Relief

At the time of the survey most of the site was growing winter cereals although some fields in the north west of the site were under grass. Woodland occurs in places on the valley sides of the North Burn which bisects the site. Altitude ranges from 50m A.O.D. near High Burntofts to 25m A.O.D. along the North Burn. Except for some strong to steep slopes on the valley sides of the North Burn, slope was generally gentle and did not limit ALC grade.

### 1.3 Climate

| | |
|---|---|
| Grid Reference | NZ 448 273 |
| Altitude (m) | 38 |
| Accumulated Temperature above 0°C (January - June) | 1331 day ° C |
| Average Annual Rainfall (mm) | 606 |
| Climatic Grade | 1 |
| Field Capacity Days | 144 |
| Moisture Deficit (mm) Wheat | 102 |
| Moisture Deficit (mm) Potatoes | 92 |

1.4 Geology, Soils and Drainage

Soils are all developed from thick drift deposits. Solid Permian Marl is not exposed within a metre of the surface. The drift is predominantly boulder clay, which is reddish in places. This has weathered to produce medium or heavy clay loam topsoils over clayey, slowly permeable, occasionally reddish, subsoils. These soils are usually poorly drained (Wetness Class IV), although some are imperfectly drained (Wetness Class III).

Lighter textured deposits of alluvium are found alongside the North Burn. These typically have medium silty clay loam topsoils over similar or sandy silt loam subsoils. These profiles are generally moderately well drained (Wetness Class II).

The Soil Survey and Land Research Centre (SSLRC) has mapped soils on the site at 1: 250 000 scale and shown the southern part of the site to contain Crewe Association, with Dunkeswick Association to the centre and north; SSLRC, "Soils and their use in Northern England" (1984).

2. AGRICULTURAL LAND CLASSIFICATION

The ALC Grades occurring on this site are as follows:

| Grade/Subgrade | Hectares | Percentage of Total Area |
|---|---|---|
| 1 | | |
| 2 | 8.1 | 4.7 |
| 3a | 4.1 | 2.4 |
| 3b | 146.4 | 84.9 |
| 4 | 7.8 | 4.5 |
| 5 | | |
| (Sub total) | (166.4) | (96.5) |
| Urban | | |
| Non Agricultural | 1.0 | 0.6 |
| Woodland | 3.8 | 2.2 |
| Agricultural Buildings | 1.3 | 0.8 |
| Open Water | | |
| Land not surveyed | | |
| (Sub Total) | (6.1) | (3.6) |
| TOTAL | 172.5 | 100 |

### Grade 2

A narrow strip of Grade 2 is found on flat land alongside the North Burn. Topsoils are generally medium clay loam or medium silty clay loam over a similar textured or sandy silt loam subsoil, which is occasionally gleyed. This land contains moderately well drained soils, and is limited by slight soil wetness problems.

### Subgrade 3a

A small area of Subgrade 3a land was mapped in the south east of the site. Topsoils are medium clay loam over a similar textured upper subsoil. The lower subsoil is gleyed and slowly permeable. These soils are imperfectly drained (Wetness Class III). Soil wetness limits the ALC grade of this land.

### Subgrade 3b

Subgrade 3b land dominates the site. Topsoils are medium or heavy clay loam over a clayey, slowly permeable, occasionally reddish subsoil. These soils are poorly drained (Wetness Class IV). A more severe soil wetness problem limits this land to subgrade 3b.

### Grade 4

This moderately steep and steep sloping land on the valley sides of the North Burn and its tributaries is limited by slope.

### Woodland

This is found alongside the North Burn.

### Non Agricultural

This includes a small scrubby area.

### *Farm Buildings*

This comprises the 3 derelict farms on the site - Annigate, Tofts Farm and High Burntoft.

MAP