Sutton New Hall Farm
Ellesmere Port and Neston Borough Local Plan
Agricultural Land Classification
October 1996

Resource Planning Team ADAS Statutory Group WOLVERHAMPTON ADAS Ref:

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# AGRICULTURAL LAND CLASSIFICATION REPORT FOR SUTTON NEW HALL FARM, ELLESMERE PORT AND NESTON BOROUGH LOCAL PLAN

#### **SUMMARY**

1. The Agricultural Land Classification (ALC) Survey for this site shows that the following proportions of ALC grades are present:

Grade/Other Land	Area (hectares)	% of surveyed area
3a	82.3	74
3b	24.5	22
Other land	4.2	4
Total Survey Area	111.0	100

- 2. The main limitations to the agricultural use of land in Subgrade 3a are soil wetness and soil droughtiness.
- 3. The main limitation to the agricultural use of land in Subgrade 3b is soil wetness.

## INTRODUCTION

- 4. The site was surveyed by the Resource Planning Team in October 1996. An Agricultural Land Classification survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).
- 5. The 111 ha site is situated to the south west of Little Sutton, near Ellesmere Port. The land immediately to the north, south and east of the site is in urban use. The land to the west is in agricultural use, with the railway line forming the north west boundary to the site.
- 6. The survey was requested by MAFF in connection with Ellesmere Port and Neston Borough Local Plan.
- 7. At the MAFF Land Use Planning Unit's request this was a detailed grid survey at 1:10000 with a minimum auger boring density of 1 per hectare. The attached map is only accurate at the base map scale and any enlargement would be misleading.
- 8. At the time of the survey the site was under grass and recently sown oilseed rape and cereals, with some areas still under cereal stubble from the previous harvest.

## **CLIMATE**

9. The following interpolated data are relevant for the site:

Factor	Units	Values	
Grid Reference	N/A	SJ 372 751	
Altitude	m, AOD	35	
Accumulated Temperature	day °C	1425	
Average Annual Rainfall	mm	734	
Field Capacity Days	days	167	
Moisture Deficit, Wheat	mm	98	
Moisture Deficit, Potatoes	mm	87	

## SITE

- 10. Three site factors of gradient, micro relief and flooding are considered when classifying land.
- 11. These factors do not impose any limitations on the agricultural use of the land.

## **GEOLOGY AND SOILS**

- 12. The solid geology of the area is comprised of Triassic Pebble Beds British Geological Survey Sheet 96 Liverpool 1:50 000. This is overlain with deposits of Quaternary boulder clay.
- 13. The underlying geology influences the soils which either have a sandy loam texture in the north, east and centre of the site or a sandy clay loam and clay loam texture in the south and west of the site.

#### AGRICULTURAL LAND CLASSIFICATION

- 14. Subgrade 3a occupies 82.3 ha (74%) of the survey area and is found mainly in the north, east and centre of the site. The soils within this grade are of two distinct types.
  - Soils found on the higher ground around Sutton New Hall Farm and the Water Works have a sandy loam texture over sandy loam to a depth of between 50 and 85 cm where sandstone is encountered. Occasionally, there are lenses of sandy clay loam, loamy sand and sand in the subsoil. The topsoil has few stones with the subsoil being slightly to very stony. The subsoil is particularly stony immediately above the surface of the weathered sandstone (50-85 cms depth). The moisture balance places these soils into Subgrade 3a.
  - The main limitation to the agricultural use of this land is soil droughtiness.
  - Soils found on the gentle slopes falling to the south and west of Sutton New Hall
    Farm and the Water Works have either a sandy clay loam or clay loam texture over
    sandy clay loam and heavy clay loam or clay to depth, with few stones in the soil
    profile. Occasionally there are lenses of sandy loam, loamy sand and sand within
    the subsoil. Observations of gleying and the depth to the slowly permeable layer
    place these soils in Wetness Class III.
  - The main limitation to the agricultural use of this land is soil wetness.
  - There are isolated borings of Grade 2 quality within this unit, but they cannot be shown separately at this scale of mapping.
- 15. Subgrade 3b occupies 24.5 ha (22%) of the survey area and is found in the south and west of the site.
  - The soil typically has either a sandy clay loam or clay loam texture overlying heavy clay loam or clay to depth. Occasionally there are lenses of sandy clay loam, sandy loam and loamy sand in the subsoil. Observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class IV.
  - The main limitation to the agricultural use of this land is soil wetness.
- 16. Other land occupies 4.2 ha (4%) of the survey area and includes agricultural buildings at Sutton New Hall Farm; ponds; tracks; scrub and an electricity sub station in the south of the site.

# 17. SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

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