WEST LANCASHIRE LOCAL PLAN
Objection 0514/001
Agricultural Land Classification
ALC Map and Report
July 1997

M J W WOOD
Resource Planning Team
Northern Region
FRCA Wolverhampton

RPT Reference: 017/97 & 25/RPT/0626
FRCA Reference: EL 21/10095A
LURET Job Number: ME1AF1W

AGRICULTURAL LAND CLASSIFICATION REPORT
WEST LANCASHIRE LOCAL PLAN
Objection 0514/001

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 7.3 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the south west of Up Holland, Orrell. The survey was in connection with the West Lancashire Local Plan.

2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in June 1997 by the Resource Planning Team of the Farming and Rural Conservation Agency (FRCA)- Northern region of FRCA.

3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales - Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988) .

4. At the time of survey the agricultural land on this site was fallow.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10 000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this base map scale and any enlargement would be misleading.

6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1	-	-	-
2	-	-	-
3a	-	-	-
3b	5.3	93	73
4	-	-	-
5	0.4	7	5
Agricultural land not surveyed	-	N/A	-
Other land	1.6	N/A	22
Total surveyed area	5.7	100	-
Total site area	7.3	-	100

7. The agricultural land on this site has been classified as Subgrade 3b (moderate quality) and Grade 5 (very poor quality). The key limitations to the agricultural use of this land include gradient and soil wetness.

8. The area of moderate quality land is located over the majority of the site. The soils have either a clay loam or a sandy clay loam topsoil overlying clay loam and clay to depth.

9. The area of very poor quality land is mapped in the south of the site. The soils in this area have been disturbed with the upper horizons being removed leaving the slowly permeable clay at the surface.

FACTORS INFLUENCING ALC GRADE

Climate

10. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

11. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using standard interpolation procedures (Meteorological Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SD 514 049
Altitude	m, AOD	125
Accumulated Temperature	day°C (Jan-June)	1307
Average Annual Rainfall	mm	1001
Field Capacity Days	days	228
Moisture Deficit, Wheat	mm	62
Moisture Deficit, Potatoes	mm	42
Overall climatic grade	N/A	Grade 2

12. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

13. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (ATO, January to June), as a measure of the relative warmth of a locality.

14. The combination of rainfall and temperature at this site means that there is a climatic limitation in this locality. The site is climatically Grade 2.

Site

15. The site lies at an altitude of 125 to 146 metres AOD, with the highest land around Higher Tower Hill Farm in the east of the site. The land falls away to the north and west of the site towards the Brickworks.

16. In the west of the site gradient acts as a limitation to Subgrade 3b on slopes of between 7° and 11°.

17. Microrelief and flooding do not impose any limitations on the agricultural use of this land.

Geology and Soils

18. The solid geology of the area is comprised of Westphalian Sandstone and Lower Coal Measures. In the west of the site this is overlain with deposits of boulder clay - British Geological Survey (1977).

19. The soils that have developed on this geology are generally of a clay loam texture over clay loam and clay at depth.

Agricultural Land Classification

20. The details of the classification of the site are shown on the enclosed ALC map and the area statistics of each grade are given in Table 1, page 1.

Subgrade 3b

21. Land of moderate quality occupies 5.3 hectares (73%) of the site area.

22. The soil has a clay loam texture over clay loam and clay to depth with few stones within the profile. Occasionally sandy clay loam may be present in the profile. The depths to gleying and the slowly permeable layer place these soils in either Wetness Class III or IV. In the west of the site these soils are, in places, found on slopes of between 7° and 11°. Here the gradient limits the agricultural use of the land to Subgrade 3b.

23. The main limitations to the agricultural use of this land are gradient and/or soil wetness.

Grade 5

24. Land of very poor quality occupies 0.4 hectares (5%) of the site. These soils are found in the south of the site around a lobe of the brickworks quarry which extends into this area.

25. The soils in this grade have been disturbed with the upper horizons being removed, leaving the slowly permeable clay at the surface. These soils are placed in Wetness Class V.

26. The main limitation to the agricultural use of this land is soil wetness.

Other Land

27. Other land occupies 1.6 hectares (22%) of the site area and includes housing, a school nursery, scrub, Lower Tower Hill Farm and the edge of the quarrying associated with the Brickworks.

Resource Planning Team
Northern Region
FRCA Wolverhampton

SOURCES OF REFERENCE

British Geological Survey (1977) Sheet 84, Wigan Solid and Drift Edition.
1:50 000 Scale.
BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.
MAFF: London.

Meteorological Office (1989) Climatological Data for Agricultural Land Classification.
Meteorological Office: Bracknell.