

**WEST LANCASHIRE LOCAL PLAN
Objection 1462
Agricultural Land Classification
ALC Map and Report
June 1997**

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**AGRICULTURAL LAND CLASSIFICATION REPORT
WEST LANCASHIRE LOCAL PLAN
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 41.9 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the north 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 under barley, wheat and grass (long term set-a-side).

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	3.0	8	7
3b	36.4	92	87
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	2.5	N/A	6
Total surveyed area	39.4	100	-
Total site area	41.9	-	100

7. The agricultural land on this site has been classified as Subgrade 3a (good quality) and Subgrade 3b (moderate quality), the key limitations to the agricultural use of this land include soil wetness and soil droughtiness.

8. The area of good quality land is located on the moderately sloping land in the north west of the site. The soil has either a sandy clay loam or a clay loam topsoil overlying sandy clay loam and clay loam to a depth of approximately 60 cm where sandstone is encountered.

9. The area of moderate quality land is mapped over the majority of the site. The soil has a clay loam topsoil overlying gleyed and slowly permeable heavy clay loam and clay subsoils.

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	
		SD 518 061	SD 511 062
Grid reference	N/A		
Altitude	m, AOD	115	151
Accumulated Temperature	day°C (Jan-June)	1317	1277
Average Annual Rainfall	mm	1007	1030
Field Capacity Days	days	230	233
Moisture Deficit, Wheat	mm	62	57
Moisture Deficit, Potatoes	mm	43	36
Overall climatic grade	N/A	Grade 2	Subgrade 3a

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 (AT0, 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 the land below 145 metres is climatically Grade 2, whilst land above 145 metres is climatically Subgrade 3a.

Site

15. The site lies at an altitude of 110 to 155 metres AOD, with the land rising to the west of the site.
16. The three site factors of gradient, microrelief and flooding are considered when classifying the land.
17. These factors 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 Carboniferous Coal Measures. 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.

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 3a

21. Land of good quality occupies 3.0 hectares (7%) of the site area and is located on the moderately sloping land in the north west of the site.
22. The soil has either a sandy clay loam or a clay loam texture over clay loam and sandy clay loam to a depth of between 35-65 cm, with common stones within the profile. Below this depth the sandstone bedrock is encountered. These soils are placed in Wetness Class I, which combined with a clay loam topsoil and a field capacity days figure in excess of 225, limits these soils to Subgrade 3a.
23. The main limitation to the agricultural use of this land is soil wetness.

Subgrade 3b

24. Land of moderate quality occupies 36.4 hectares (87%) of the site area and is mapped over the majority of the site.
25. The soil has a clay loam texture overlying heavy clay loam and clay. The depths to gleying and the slowly permeable layer place these soils in Wetness Class IV. In the east of the site the shale of the underlying Coal Measures is occasionally encountered in the subsoil.
26. The main limitation to the agricultural use of this land is soil wetness.

Other Land

27. Other land occupies 2.5 hectares (6%) of the site area and includes a school playing field, College Farm, covered reservoirs, housing, ponds and woodland.

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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.**