

**STAFFORDSHIRE STRUCTURE PLAN  
South West Tamworth**

**Agricultural Land Classification  
ALC Map and Report  
April 1998**

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**AGRICULTURAL LAND CLASSIFICATION REPORT  
STAFFORDSHIRE STRUCTURE PLAN  
South West Tamworth**

**INTRODUCTION**

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 186.7 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 Tamworth, between the River Tame and the A5. The survey was in connection with the Staffordshire Structure Plan.
2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in February and March 1998 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 cereals and grass with some areas remaining fallow from the previous harvest.

**SUMMARY**

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10000 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	112.8	69	60
3b	49.8	31	27
4	-	-	-
5	-	-	-
Agricultural land not surveyed	1.2	N/A	1
Other land	22.9	N/A	12
<b>Total surveyed area</b>	<b>162.6</b>	<b>100</b>	<b>-</b>
<b>Total site area</b>	<b>186.7</b>	<b>-</b>	<b>100</b>

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 are topsoil stone content, soil wetness and soil droughtiness.

8. The area of good quality land is located mainly on the land to the south and west of the Birmingham and Fazeley Canal. The topsoils have sandy loam and sandy clay loam textures overlying a variety of subsoil textures including sandy loam, loamy sand, sand, clay loam, sandy clay loam and clay at depth.

9. The area of moderate quality land is mapped near Kendall Wood, Bonehill Farm, Dunstall Farm and alongside the Birmingham and Fazeley Canal. The soils in these areas are similar in texture to those described as Subgrade 3a. However, the soils are stonier in both the topsoil and the subsoil.

## 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	
		SK 178 031	SK 186 036
Grid reference	N/A	SK 178 031	SK 186 036
Altitude	m, AOD	80	70
Accumulated Temperature	day°C (Jan-June)	1387	1398
Average Annual Rainfall	mm	654	645
Field Capacity Days	days	148	146
Moisture Deficit, Wheat	mm	102	103
Moisture Deficit, Potatoes	mm	92	94
Overall climatic grade	N/A	Grade 1	Grade 1

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 there is no overall climatic limitation. The site is climatically Grade 1.

## Site

15. The site lies at an altitude of 57 to 95 metres AOD. The land rises from the River Tame floodplain in the north east of the site towards Kendall Wood and Bangley House Farm in the south west.
16. The three site factors of gradient, microrelief and flooding are considered when classifying the land.
17. To the north of Dunstall Lane, the area surveyed encroaches into the floodplain of the River Tame. Information from the farmer (Mr Ward) and the Environment Agency suggests that this land is affected by flooding from both the River Tame and the associated network of brooks and drainage channels in the floodplain. The information relating to season, frequency and extent is not likely to result in further downgrading of the land as it is already Subgrade 3b on soil wetness and soil droughtiness.
18. The remaining factors do not impose any limitations on the agricultural use of this land.

## Geology and Soils

19. The solid geology of the area is comprised of Keuper Red Marl. This is overlain with alluvium, boulder clay and first terrace deposits. - British Geological Survey (1954).
20. The soils that have developed on this geology have a variety of textures, including sandy loam, sandy clay loam, clay loam and clay.

## Agricultural Land Classification

21. 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*

22. Land of good quality occupies 112.8 hectares (60%) of the site area and extends mainly over the land to the south and west of the Birmingham and Fazeley Canal.
23. The soil has either a sandy loam or a sandy clay loam texture over sandy loam, loamy sand and sand to depth. Sandy clay loam, heavy clay loam and clay maybe present in the lower subsoil. Profiles are moderately to very stony. The volume of topsoil stones greater than 2cm in size is between 10% and 15%, limiting these soils to Subgrade 3a. The moisture balance places these soils in Subgrade 3a. Where clay is encountered in the lower subsoil, observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class III. In places there are isolated soil profiles of Grade 2 and Subgrade 3b quality. These profiles cannot be shown separately at this scale of mapping.
24. The main limitations to the agricultural use of this land include topsoil stone content, soil wetness and soil droughtiness.

### *Subgrade 3b*

25. Land of moderate quality occupies 49.8 hectares (27%) of the site area and is found near Kendall Wood, Bonehill Farm, Dunstall Farm and alongside the Birmingham and Fazeley Canal.

26. To the north of Plantation Lane the soils are similar in texture to these described for Subgrade 3a. However, these profiles are stonier in both the topsoil and the subsoil. The volume of topsoil stones greater than 2cm in size is between 15% and 35%, limiting these soils to Subgrade 3b. The moisture balance also places these soils in Subgrade 3b.

27. The soils near Kendall Wood have a clay loam texture over a gleyed and slowly permeable subsoil. Here the soils are placed in Wetness Class IV.

28. The main limitations to the agricultural use of this land includes topsoil stone content, soil wetness and soil droughtiness.

### *Land Not Surveyed*

29. The RPT did not survey 1.2 hectares (1%) of the site area as access had not been granted. At the time of the survey the land was being grazed by horses.

### *Other Land*

30. Other land occupies 22.9 hectares (12%) of the site area includes the Birmingham and Fazeley Canal, farms, roads, tracks, woodland, ponds and a garden centre.

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## **SOURCES OF REFERENCE**

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1:63 360 Scale.  
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