

AGRICULTURAL LAND CLASSIFICATION  
NORTHWICH LOCAL PLAN

The site at Northwich was surveyed by the Resource Planning Group in January 1989. It lies south east of the centre of Northwich, in the valley of the River Dane and covers about 130 ha. The site is bounded by the A556 (T) dual carriage-way to the south, railway lines and housing to the east and north and by housing on top of the scarp slope to the west. At the time of survey just over 70% of the site was in agricultural use with winter cereal, oil seed rape, potatoes and some permanent and rough grass.

Climate

This area has an average annual rainfall of about 786 mm and an accumulated temperature for the period January to June of 1437 day °C, so overall climate is not a limiting factor. The median duration of field capacity is 185 days and the crop-adjusted moisture deficits (MD) for wheat and potatoes are respectively 94 mm and 83 mm.

Site

Most of the site lies at an altitude of 15 m to 20 m, but the land rises to over 25 m in the south west around the cemetery and to 30 m along the western edge of the site at the top of the scarp slope. Most of the land is level or gently undulating but along the western edge and adjacent to Bleakhouse Farm steep slopes are limiting to the agricultural use of the land. On the flood plain to the north east of Danebank Farm slight undulations in the land surface give rise to small hollows which were lying wet at the time of survey. Between the River Dane and the railway in the east of the site microrelief imposes a limitation where former river channels and banks have resulted in complex changes of slope angle and direction over short distances.

Information about flooding in this area is limited, but the best information available suggests that the land was last flooded in 1946/47. Since that time remedial works have been carried out downstream of Northwich and for the purposes of Agricultural Land Classification it is assumed that there is no risk of flooding on this site.

## Soils

Solid geology in this area comprises Lower Keuper Saliferous Beds, but these are overlain by more recent deposits of Alluvium, and where the land rises in the south east and towards Danebank Farm of First Terrace Deposits, Glacial sand and gravel and boulder clay. The soils developed from this parent material are mainly stoneless silty clay loams fine sandy silt loams and sandy clay loams. Where sand and gravel occurs there are slightly stony sandy loams over loamy sands and sand.

## AGRICULTURAL LAND CLASSIFICATION

### Grade 2

About 20% of the total area of this site has been mapped as Grade 2. The land is level or very gently sloping, and soils are generally deep, permeable and stoneless and only very slightly stony. On the river flood plain the soil profiles are fairly uniform with deep sandy clay loams and silty clay loams, and close to the river and on the higher land close to the cemetery soils are sandy loams over loamy sands. On the lighter soils slight droughtiness is the main limiting factor and on the heavier soils wetness and topsoil texture restrict the land to this Grade.

### Grade 3a

Almost half of the agricultural land of this site is mapped as Grade 3a. Soils are more varied than those shown as Grade 2 and in general increased soil wetness and increased droughtiness limit these areas to Grade 3a. Profiles include sandy loams over loamy sand and sand and gravel, deep silty clay loams with evidence of gleying within 40 cm, and silty clay loams over silty clays. To the north east of Danebank Farm within a large area mapped as Grade 3a there are profiles of Grade 2 but the presence of a number of small wetter hollows imposes a pattern limitation so the whole area has been mapped as one grade.

### Grade 3b

There are a number of small areas of Grade 3b land around the margins of this site. North of Bleakhouse Farm, a slowly permeable horizon of silty clay within 45 cm of the surface restricts these soils to wetness class IV and thus Grade 3b. This area is also limited by microrelief because former banks and channels of the river and a tributary stream have left an irregular land surface. Heavier, wetter soils also occur adjacent to the allotments in the north of the site and

and at the bottom of the slope east of Danebank Farm. Gradients of 7° - 11° restrict part of the scarp slope to this Grade.

#### Grade 4

Land mapped as Grade 4 occurs where gradients exceed 11°, on the scarp slope in the west of the site and along the stream in the east of the site.

#### Grade 5

A small area of the slope east of The Brockhurst is greater than 18°, restricting this area to Grade 5.

#### Non-Agricultural

Land shown as non-agricultural includes playing fields, woodland and scrub, allotments, and rough grass and public open space which is not farmed and where access is very restricted (eg narrow necks of land within river meanders).

#### Urban

Urban areas include a cemetery, railway line, farmer sewage works and new housing development.

	Area of land within each Grade		
	Hectares	% of total area	% of agricultural area
Grade 2	26.7	20	29
Grade 3a	45.2	35	49
Grade 3b	13.7	10	15
Grade 4	5.1	4	6
Grade 5	0.8	<1	1
Non-agricultural	15.1	12	
Woodland	0.6	<1	
Open water	15.5	12	
Urban	7.3	6	
TOTAL AGRICULTURAL	91.5		
TOTAL	130.0	100	