FIVE FORDS, WREXHAM

AGRICULTURAL LAND CLASSIFICATION REPORT

March 2026

Introduction

1. This report has been prepared for Mauna Kea Limited (a wholly owned subsidiary of Net World Sport) by Daniel Baird Soil Consultancy Ltd. It provides an assessment of the agricultural quality and versatility of agricultural land within the proposed development site at Five Fords, Wrexham.
2. The site totals approximately 24.3 hectares in area. When surveyed in November 2024 the land was under maize stubble.
3. This appraisal of agricultural land quality is consistent with the direction given by Future Wales: the National Plan 2040[i]. Productive agricultural land is described as a vital resource to be valued and protected.
4. The Wrexham Local Development Plan[ii] (LDP) was adopted in December 2023. However the plan was subsequently withdrawn on 18 March 2026. The development plan for this area therefore now comprises the Future Wales document.
5. A detailed assessment of the site was undertaken in November 2024 using the Ministry of Agriculture Fisheries and Food (MAFF) revised guidelines and criteria for Agricultural Land Classification[iii] (ALC) published October 1988. This document was updated in December 2025 to reference current government ministries rather than the former MAFF. There are no changes to the ALC guidance that would vary the assessment made for this site.
6. Following the custom and practice of the former MAFF ALC survey teams, a detailed ALC survey has a sample point density of approximately one per hectare of agricultural land, achieved by placing sample points at 100m intersections of the Ordnance Survey National Grid, a systematic randomised sampling strategy that avoids assessor bias.

Agricultural Land Classification Methodology

7. The MAFF ALC system of grading land quality for use in land use planning purposes divides farmland into five grades, with the degree of limitation imposed upon land use by the inherent physical characteristics of climate, site and soils. Grade 1 land is of an excellent quality, whilst Grade 5 land has very severe limitations for agricultural use. The ALC system is designed to be independent of land management so that there is no incentive for poor management of land to facilitate development consent. Best and most versatile agricultural land that through sustained arable cropping has become exhausted, with diminished

organic matter degrading the structural stability of the topsoil, is not downgraded in the ALC system.

8. The MAFF revised guidelines and criteria for ALC of October 1988 require that the following factors be investigated:

- Climate: Average Annual Rainfall (AAR) and Accumulated Temperature above 0°C between January and June (AT0)
- Site: Gradient, Micro Relief and Flooding
- Soils: Texture, Structure, Depth, Stoniness, and Chemical Toxicity
- Interactive Factors: Soil Wetness, Soil Droughtiness and Liability to Erosion

9. Data_Map Wales[iv] shows an existing ALC survey that overlaps with the Five Fords site. This ALC survey (Bedwell Road – Marchwiel, Job Number 013-02) was undertaken in 2002 on behalf of the Welsh Government. It records all of the land in the eastern half of the Five Fords site as ALC Grade 3a. Data Map Wales also provides the Predicative ALC Map which places the Five Fords site in ALC Grade 3a.

Agricultural Land Classification Assessment

Climate

10. Climatological data for ALC are provided for 5km intersections of the National Grid by the Meteorological Office, in collaboration with the National Soil Resources Institute. The data from these points can be interpolated providing climate data for specific sites, with data for this site given below: -

Table 1: Climate Data for Land at Five Fords, Wrexham

Reference Point:	SJ 370 480
Altitude (m)	35
Average Annual Rainfall AAR (mm)	738
Accumulated Temperature AT0 (day degrees)	1438
Moisture Deficit for wheat (mm)	103
Moisture Deficit for potatoes (mm)	94
Field Capacity Duration (days)	172

11. The main parameters used in the assessment of an overall climatic limitation are AAR as a measure of overall wetness, and AT0 as a measure of the warmth of

the site in the growing season. There is no overall climate limitation on ALC grade for this site.

The Site

12. Natural Resources Wales provide an online Flood Risk Assessment map[v]. This shows minor areas of land within the site at elevated risk of flooding from the watercourse to the north of the site. The extent of this elevated flood risk is not considered high enough to limit ALC Grade.
13. Land is gently sloping with a northern aspect, levelling out to the northern edge of the site. There is also a distinct terrace before the watercourse to the northern edge of the site. Gradient does not limit ALC grade on any part of the site.

Soils and Parent Materials

14. The British Geological Survey Geology of Britain Viewer[vi] shows the site to be underlain by the Salop Formation mudstone solid geology. For the southern three quarters of the site this is mapped as overlain by a superficial deposit of Till, with river terrace deposits mapped for the remainder to the north.
15. Detailed survey of the site found sandy loam to clay loam soils across the site with some areas of lighter loamy sand subsoils. This range of soil textures is consistent with the mapped superficial geology.

Interactive Factors

16. Agricultural land within the site is predominantly limited to grade by the interactive factor of soil droughtiness. Free drained and light textured soils in conjunction with the relatively wet climate result in a drought limitation to Grade 3a.
17. A smaller area of land is limited to grade by the interactive factor of soil wetness. Heavy textured subsoil impedes the drainage of excess rainfall down through the soil profile leaving this soil waterlogged for long periods in winter (Wetness Class IV). In conjunction with the sandy loam topsoil this land is limited to Grade 3a by soil wetness.
18. To the southern edge of the site three sample points found soils with a freely draining sandy loam upper subsoil above the heavy textured lower subsoil. This land is seasonally waterlogged and limited to Grade 2 by soil wetness.
19. One isolated sample point was also found in the north that in isolation would be classed as ALC Grade 3b on soil wetness owing to the higher clay content of the clay loam topsoil.
20. The single sample point for Grade 3b and the three sample points for Grade 2 do not provide sufficient support to demarcate discrete areas of land at the detailed scale of survey. Neither was identified by the previous 2002 Welsh Government ALC survey which they both lie within. The Welsh Government Predicative ALC map also does not identify any Grade 2 or 3b at these locations.

21. As shown on the photographs below, evidence of significant soil erosion was clearly visible when the site was surveyed but was not sufficiently severe to be a dominant limiting factor for ALC grading. Although not limiting to the overall quality and versatility of this agricultural land, soil erosion that discharges sediment to a surface water course has many adverse environmental effects. These include elevating flood risk and impairing water quality.





22. Detailed ALC survey of the site found agricultural land in ALC Grade 3a, Drought is the predominant limitation to grade across the site, with some areas limited by soil wetness.

Table 2 – ALC Grade Distribution

ALC Grade	Area (ha)	%
3a	24.3	100
Total	**24.3**	**100.0**

23. The presence of the best and most versatile land at the site is an important planning consideration, but not a bar to development. As noted in the Wrexham

Borough LDP, most settlements in the Borough are surrounded by best and most versatile land and the need to develop in sustainable locations can outweigh the need to conserve all best and most versatile agricultural land.

24. As observed during field survey work, under its current arable use, the site is clearly vulnerable to significant soil erosion. The location adjoining a water course to the north will result in discharges of sediment into this surface water. In addition to the heightened flood risk from sediment, this material from agricultural land will also introduce phosphate, pesticide and faecal indicator organisms, all of which are detrimental to water quality.
25. The presence of best and most versatile land at the site should be weighed against other sustainability criteria, which should include the downstream impacts of the current agricultural land use of this site.

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[i] Future Wales: The National Plan 2040. Welsh Government February 2021. https://www.gov.wales/future-wales-national-plan-2040-0

[ii] Wrexham Local Development Plan. Wrexham Borough Council, December 2023. https://www.wrexham.gov.uk/service/planning-application-guidance/development-plans-and-other-planning-policy

[iii] Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land. Ministry of Agriculture Fisheries and Food, October 1988. http://archive.defra.gov.uk/foodfarm/landmanage/land-use/documents/alc-guidelines-1988.pdf

[iv] Data Map Wales: data and maps from the Welsh public sector https://datamap.gov.wales/

[v] Natural Resources Wales Flood Risk Assessment map. https://naturalresources.wales/flooding/check-your-flood-risk-on-a-map-flood-risk-assessment-wales-map/?lang=en

[vi] British Geological Survey Geology of Britain viewer. http://www.bgs.ac.uk/data/mapViewers/home.html?src=topNav