TYNEDALE DISTRICT LOCAL PLAN
(SITES 60, 61 AND 62 - WYLAM)

Agricultural Land Classification (ALC)
Maps and Report

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AGRICULTURAL LAND CLASSIFICATION REPORT

TYNEDALE DISTRICT LOCAL PLAN (SITES 60, 61 AND 62 - WYLAM)

INTRODUCTION

1. This report presents the findings of detailed Agricultural Land Classification (ALC) surveys of three sites lying on the north side of the village of Wylam. They cover a total area of 14.2 ha.

2. The surveys were carried out by the Farming and Rural Conservation Agency (FRCA) for the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with the proposal to include these areas of land in the Tynedale District Local Plan. The ALC information contained in this report supersedes any previous survey information.

3. The work was conducted by members of the Resource Planning Team in the Northern Region of FRCA . The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.

4. At the time of survey the agricultural land on the sites was in ley and permanent grass. Other, non-agricultural, land occurs on Site 60 (a silage store) and Site 62 (woodland).

SUMMARY

5. The findings of the surveys are shown on the attached ALC maps. They have been drawn at a scale of 1:5,000. They are accurate at this scale but 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

	Subgrade 3b	Other land	Total
Site 60, Holeyn Hall Road	3.1	0.3	3.4
Site 61, South of Blue Bell Lane North of Dene Road	2.8	-	2.8
Site 62, South of Blue Bell Lane East of Dene Estate	7.7	0.3	8.0

7. The fieldwork was conducted at an average density of one boring per hectare. Three borings were carried out on Site 60, four on Site 61 and eight on Site 62. One soil pit was dug on Site 61.

8. Subgrade 3b, moderate quality agricultural land, covers all of the agricultural land on all three sites. Generally the soils are poorly drained, with medium clay loam topsoils and, in

places, thin upper subsoils, overlying gleyed and slowly permeable heavy clay loam or clay. Soil wetness is the grade-limiting factor.

9. Other land occurs on Sites 60 (a silage store) and 61 (woodland).

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 these sites are given in Table 2 and were obtained from the published 5 km grid datasets using the standard interpolation procedures (Met. Office, 1989). Due to the close proximity of all three sites and their very similar altitudes, one grid reference was used to obtain climatic data for all three.

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	NZ 116 651
Altitude	m, AOD	38
Accumulated Temperature	day°C (Jan-June)	1321
Average Annual Rainfall	mm	678
Field Capacity Days	days	172
Moisture Deficit, Wheat	mm	94
Moisture Deficit, Potatoes	mm	81
Overall climatic grade	N/A	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 (ATO, January to June), as a measure of the relative warmth of a locality.

14. The combination of rainfall and temperature means that there is no overall climatic limitation on any of the three sites.

Site

15. Generally the sites are level to gently sloping (0-3°) with variable aspect, although an area in the centre of Site 62 is moderately sloping (4-6°) and the south-eastern corner of Site 60 is strongly sloping (11°). Only in this corner of Site 60 is gradient a grade-limiting factor - to Subgrade 3b in this case. Neither flood risk nor microrelief limit ALC grade at any point on any of the three sites.

Geology and soils

16. The area is underlain by Carboniferous Lower Coal Measures (BGS, Sheet 20) over which lie till deposits.

17. The soils have been mapped as belonging to the Brickfield 3 association (Soils of England and Wales, Sheet 1, Northern England). The topsoils on parts of Sites 61 and 62 have been contaminated by fragments of coal, apparently from previous shallow mining in the vicinity.

AGRICULTURAL LAND CLASSIFICATION

18. The details of the classification of each site are shown on the attached ALC maps and the area statistics of each grade are given in Table 1, page 1.

Site 60, Holeyn Hall Road

Subgrade 3b

19. All of the agricultural land on this site is Subgrade 3b, moderate quality land. The soils are poorly drained (Wetness Class IV) and consist of medium clay loam topsoils overlying gleyed and slowly permeable heavy clay loam or clay subsoils at between 25 cm and 30 cm depth. Soil wetness is the factor limiting this land to Subgrade 3b.

Other land

20. Other, non-agricultural, land on this site occurs in the south-west and consists of a silage store.

Site 61, South of Blue Bell Lane, North of Dene Road

Subgrade 3b

21. All of this site is Subgrade 3b, moderate quality agricultural land. The soils are imperfectly to poorly drained, falling in Wetness Classes III and IV. Medium clay loam topsoils overlie gleyed and slowly permeable clay subsoils at between 35 cm and 45 cm depth. Some of the topsoils have been contaminated with fragments of coal, apparently from shallow mining activity in the vicinity. Although some profiles meet the criteria for Subgrade 3a they form no apparent pattern and cannot be mapped separately from the Subgrade 3b land, where soil wetness is the grade-limiting factor.

Site 62, South of Blue Bell Lane, East of Dene Estate

Subgrade 3b

22. All of the agricultural land on this site falls in Subgrade 3b, moderate quality land. The soils are generally poorly drained (Wetness Class IV), and typically consist of medium clay loam topsoils and, in places, thin upper subsoils, overlying gleyed and slowly permeable heavy clay loam or clay at between 25 cm and 35 cm depth. Soil wetness is the grade-limiting factor in the case of this land. As in the case of Site 61, some topsoils have been contaminated by fragments of coal and occasional imperfectly drained (Wetness Class III) profiles occur which

meet the criteria for Subgrade 3a. However, these occur too infrequently for them to be mapped separately from the Subgrade 3b land on the site.

Other land

23. Other, non-agricultural, land occurs in the centre of this site and consists of woodland on the site of a spoil heap.

RPT File: 20,270
20,271
20,273
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SOURCES OF REFERENCE

British Geological Survey (1992) *Sheet No. 20, Newcastle-upon-Tyne (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.

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

Soil Survey of England and Wales (1983) *Sheet 1, Soils of Northern England, 1:250,000 scale.* SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in Northern England* SSEW: Harpenden

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

Grade 1: Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2: Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a: Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b: Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4: Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5: Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.