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DORSET MINERALS AND WASTE LOCAL PLAN
SGS PHILLIOL'S AND HYDE FARMS

AGRICULTURAL LAND CLASSIFICATION

Report of Survey

1. SUMMARY

Eighty four hectares of land at Philliol's and Hyde Farms near Bere Regis, Dorset were surveyed using the Agricultural Land Classification (ALC) System in July 1993. The survey was carried out on behalf of MAFF as part of its statutory role in the preparation of the Dorset Minerals and Waste Local Plan. Philliol's and Hyde Farms are a preferred area for sand and gravel extraction.

The fieldwork was carried out by ADAS (Resource Planning Team, Taunton Statutory Unit) at a scale of 1:10,000. The information is correct at this scale but any enlargement would be misleading. A total of 84 auger borings and 4 soil profile pits were examined.

The distribution of the ALC grades and categories identified in the survey area is detailed below and illustrated on the accompanying map.

Distribution of ALC grades: Phillio's and Hyde Farms

Grade	Area (ha)	% of Survey Area	% of Agricultural Land
1	37.60	44.4	45.4
2	25.60	30.3	30.9
3a	20.55	24.3	24.8
Non Agric	1.25	1.0	100% (82.9ha)
TOTAL	84.40	100%	

All the agricultural land surveyed was found to be best and most versatile. Nearly half of the agricultural land is Grade 1. The main limitation to the versatility of the soils in the survey area is droughtiness, caused by light textured stony soils.

2. INTRODUCTION

Eighty four hectares of land at Philliol's and Hyde Farms near Bere Regis, Dorset were surveyed using the Agricultural Land Classification (ALC) System in July 1993. The survey was carried out on behalf of MAFF as part of its statutory role in the preparation of the Dorset Minerals and Waste Local Plan. Philliol's and Hyde Farms are a preferred area for sand and gravel extraction.

The fieldwork was carried out by ADAS (Resource Planning Team, Taunton Statutory Unit) at a scale of 1:10,000 (approximately one sample point every hectare). The information is correct at this scale but any enlargement would be misleading. A total of 84 auger borings and 4 soil profile pits were examined.

The published Provisional 1" to the mile ALC map of this area (MAFF 1974) shows the northern edge of the survey area as Grade 4 with the remaining land as Grade 3. The recent survey supersedes this map and the 1980 Dorset Gravels ALC survey at 1:25,000 of this area, having been carried out at a more detailed level and using the Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988).

The ALC provides a framework for classifying land according to the extent to which its physical characteristics impose long-term limitations on agricultural use. The grading takes account of the top 120cm of the soil profile. A description of the grades used in the ALC System can be found in Appendix 2.

At the time of survey the site was under grass.

3. CLIMATE

The grade of the land is determined by the most limiting factor present. The overall climate is considered first because it can have an overriding influence on restricting land to lower grades despite other favourable conditions.

Estimates of climatic variables were obtained for the site by interpolation from the 5km grid Meteorolgical Office Database (Meteorological Office 1989) and are shown in Table 1.

The parameters used for assessing overall climatic limitation are accumulated temperature, (a measure of the relative warmth of a locality) and average annual rainfall, (a measure of overall wetness). The values shown in Table 1 reveal that there is no overall climatic limitation.

No locally limiting climatic factors such as exposure were noted in the survey area.

Climatic data on Field Capacity Days (FCD) and Moisture Deficits for wheat (MDW) and potatoes (MDP) are also shown. These data are used in assessing the soil wetness and droughtiness limitations referred to in Section 6.

Table 1 Climatic Interpolations: Philliol's and Hyde Farms

Grid Reference	SY 862 920	SY 912867
Height (m)	30	23
Accumulated Temperature (day deg)	1544	1553
Average Annual Rainfall (mm)	867	912
Overall Climatic Grade	1	1
Field Capacity (Days)	179	185
Moisture Deficit, Wheat (mm)	109	109
Potatoes (mm)	103	103

4. RELIEF

The site is virtually flat with a slight drop down towards the River Piddle. There are no microrelief limitations within the survey area.

5. GEOLOGY AND SOILS

The published 1:50,000 scale soild and drift geology map, sheet 328 (Geological Survey of England and Wales 1981) shows the northern edge of the survey area to be underlain by Bagshot Beds, a small strip of land adjacent to the River Piddle to be of Alluvium and the remaining area to be of Valley Gravel.

The Soil Survey of England and Wales mapped the soils of the area in 1983, at a reconnaisance scale of 1:250,000. This map shows the soils to be of two associations. The survey area predominantly comprises of the Sollom 2 Association. These soils are described as deep often humose very acid soils, with bleached subsurface horizons, affected by groundwater. There is a small area of the Frome Association mapped adjacent to the River Piddle. These soils are shallow calcareous and non-calcareous loamy soils over flint gravel affected by groundwater.

The soils found in the recent survey are well drained. The soils are light in texture and have variable stone contents reflected by the different ALC grades mapped. The main limitation in these soils is droughtiness. The severity of the limitation depends upon the stone content of the soil. The acidity of the soils was measured and found not to be limiting factor on the versatility of the land.

6. AGRICULTURAL LAND CLASSIFICATION

The distribution of ALC grades identified in the survey area is detailed below and illustrated on the accompanying ALC map. The information is correct at the scale shown but any enlargement would be misleading.

Table 2 Distribution of ALC grades: Phillio1's and Hyde Farms

Grade	Area (ha)	% of Survey Area	% of Agricultural Land
1	37.60	44.4	45.4
2	25.60	30.3	30.9
3a	20.55	24.3	24.8
Non Agric	1.25	1.0	100% (82.9 ha)
TOTAL	84.40	100%	

Grade 1

Nearly half of the survey area has been classified as Grade 1. These soils are well drained and are Wetness Class I. The stone content of these soils is low until deep in the profile. From 68cm in a soil profile pit the stone content was measured to be 10% and 31% from 85cm. Stone contents are measured by sieving and displacement in water to assess the volumetric content. The texture of the soils are medium sandy loams throughout and have good subsoil structural conditions. Whilst there is a reduction in the available water in these soils it is not sufficient to downgrade the land.

Grade 2

One third of the survey area has been mapped as Grade 2. These soils are similar to those described above but at depth the stone content is greater and the texture of the soil is lighter being a loamy medium sand. In a soil pit the stone content was measured to be 35% from 68cm and 67% from 85cm. These soils are also Wetness Class I. The subsoil structural condition of the soils is good. These soils are slightly droughty and can be no better than Grade 2.

Subgrade 3a

One quarter of the survey area is Subgrade 3a. These soils are more droughty than those described above. In the south of the site this is because the soils are more stony. The stone content was measured to be between 20 and 30% until 90cm where it increased to 69% in a loamy medium sand. In the east around Hyde Farm the soils are less stony but have much lighter textures high in the profile. Both these types of soil can be graded no better than Subgrade 3a.

APPENDIX 1

REFERENCES

GEOLOGICAL SURVEY OF ENGLAND AND WALES (1981) Drift edition.

Sheet 328 Dorchester, 1:50,000 scale

MAFF (1974) Agricultural Land Classification Map sheet 178

Provisional 1:63,360 scale

MAFF (1988) Agricultural Land Classification of Enlgland and Wales (Revised guidelines and criteria for grading the quality of agricultural land) Alnwick

METEOROLOGICAL OFFICE (1989) Published climatic data extracted from the agroclimatic dataset, compiled by the Meteorological Office

SOIL SURVEY OF ENGLAND AND WALES (1983) Sheet 5 Soils of South West England 1:250,000