# AGRICULTURAL LAND CLASSIFICATION

## SAREDON ( SITE 65 )

## STAFFORDSHIRE AGGREGATES LOCAL PLAN

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# AGRICULTURAL LAND CLASSIFICATION REPORT FOR
# SAREDON (SITE 65), STAFFORDSHIRE AGGREGATES LOCAL PLAN

## 1. SUMMARY

1.1 The Agricultural Land Classification (ALC) Survey for this site shows that the following proportions of ALC grades are present:

| Grade/Subgrade | ha | % of site |
|---|---|---|
| 3a | 4.5 | 46 |
| 3b | 3.2 | 33 |
| 4 | 2.1 | 21 |

1.2 The main limitations to the agricultural use of the land on this site are soil droughtiness and topsoil stone content.

## 2. INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in November 1994. An Agricultural Land Classification survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales - Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

2.2 The 9.8 ha site is situated to the north west of Little Saredon on the southern slopes of Saredon Hill, near junction 11 of the M6 motorway. The land immediately to the south, east and west of the site is predominantly in agricultural use. The land immediately to the north of the site is currently being worked for sand and gravel.

2.3 The survey was requested by MAFF in connection with the Staffordshire Aggregates Local Plan.

2.4 At the request of MAFF's Land Use Planning Unit this was a detailed grid survey at 1: 10 000 scale with a minimum auger boring density of 1 per hectare. The attached map is only accurate at the base map scale and any enlargement would be misleading.

2.5 At the time of the survey the site was under cereals and grass.

## 3.    CLIMATE

3.1    The following interpolated data are relevant for the site (SJ 944 078):

| | |
|---|---|
| Average Annual Rainfall (mm) | 716 |
| Accumulated Temperature above 0°C January to June (day °C) | 1339 |

3.2    There is no overall climatic limitation on the site.

3.3    Other relevant data for classifying land include:

| | |
|---|---|
| Field Capacity Days (days) | 168 |
| Moisture Deficit Wheat (mm) | 91 |
| Moisture Deficit Potatoes (mm) | 77 |

## 4.    SITE

4.1    Three site factors of gradient, micro-relief and flooding are considered when classifying land.

4.2    These factors do not impose any limitations on the agricultural use of this land.

## 5.    GEOLOGY AND SOILS

5.1    The geology of the area is comprised of Triassic Bunter Pebble Beds (British Geological Survey, Sheet 153 Wolverhampton 1 Inch).

5.2    The underlying geology influences the soils which have a sandy texture.

## 6.    AGRICULTURAL LAND CLASSIFICATION

6.1    Subgrade 3a occupies 4.5 ha ( 46 % ) of the survey area.

    6.1.1    These soils typically have a sandy loam texture over loamy sand and sand to depth, with the profile being slightly stony. The moisture balance places these soils in Subgrade 3a. The western periphery of the allocation area has soils of Grade 2 quality, but they are of an insufficient area to map separately.

    6.1.2    The main limitations to the agricultural use of this land are soil droughtiness and in places topsoil stone content greater than 2cm.

6.2    Subgrade 3b occupies 3.2 ha ( 33 % ) of the survey area.

    6.2.1    These soils typically have a sandy loam or sandy clay loam texture overlying loamy sand and sand to depth . In the centre of this field there is a small pocket of clay loam over clay which is also of Subgrade 3b quality. The profiles have moderately stony topsoils, with subsoils becoming very stony with depth.

    6.2.2    The main limitations to the agricultural use of this land are topsoil stone content greater than 2cm and soil droughtiness.

6.3    Grade 4 occupies 2.1 ha ( 21 % ) of the survey area and is found in the east of the site. This area was previously worked for sand and gravel during the construction of the M6 motorway.

    6.3.1    These soils typically consist of a sandy loam texture over coarse sand to depth. The profiles have very stony topsoils and moderately to extremely stony subsoils.

    6.3.2    The main limitations to the agricultural use of this land are topsoil stone content greater than 2cm and soil droughtiness.

6.4    **SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES**

| Grade/Subgrade | Area (Ha) | % of survey area |
|---|---|---|
| 3a | 4.5 | 46 |
| 3b | 3.2 | 33 |
| 4 | 2.1 | 21 |
| **Totals** | 9.8 | 100 |

## 7 SOIL UNITS

7.1 Soils have been classed in to three soil units, each reflecting differences in their soil textural characteristics. Each unit identifies soils with similar handling and storage needs.

7.2 Soil unit 1 - occupies ha ( %) of the survey area.

    7.2.1 The topsoil of this unit is typically 30 to 40 cm deep and has a dark reddish brown (5 YR 33) medium sandy loam texture with common stones (< 10%).

    7.2.2 Below this topsoil, the upper subsoil is of a reddish brown (5 YR 44) loamy medium sand with common stones.

    7.2.3. The lower subsoil is typically of a reddish brown (5 YR 44) medium sand with common stones.

    7.2.4 A typical profile for Unit 1 is given below:

| | |
|---|---|
| 0.29cm 5 YR 33 | Medium sandy loam, moderately well developed medium/coarse subangular blocky, common hard stones and common roots. |
| 29-58cm 5 YR 44 | Loamy medium sand, weakly developed very coarse angular blocky, very friable consistence, porous, common hard stones and few roots. |
| 58-120 cm 5 YR 44 | Medium sand, weakly developed fine subangular blocky to single grain, very friable to loss consistence porous common hard stones and few roots. |

7.3 Soil Unit 2 - occupies ha ( %) of the survey area. This unit has an isolated pocket of clay in its centre.

    7.3.1 The topsoil of this unit is typically 30 to 35 cm deep and has a dark brown (75 YR 33) medium sandy loam or sandy clay loam texture with many stones.

    7.3.2 Below this topsoil, the upper subsoil is of a dark reddish brown (5 YR 33) or yellowish brown (10 YR 54) loamy medium sand texture with abundant stones.

    7.3.3 The lower subsoil is of a reddish brown (5 YR 44) or yellowish red (5 YR 46) medium sandy texture with abundant to extremely abundant stones.

7.3.4   A typical profile for Unit 2 is given below:

| | |
|---|---|
| 0.30 cm 75 YR 33 | Medium sandy loam, moderately well developed medium subangular blocky, many hard stones and common roots. |
| 30-60 cm 5 YR 33 | Loamy medium sand, weekly developed fine subangular blocky very friable, abundant hard stones and few roots. |
| 60cm + 5 YR 44/46 | Medium sand, weekly developed fine granular, very friable and extremely abundant stones. |

7.4   Soil Unit 3 - occupies   ha (   %) of the survey area. This unit is found in the east of the site and covers restored ground, previously worked for minerals (M6 Motorway).

7.4.1   The topsoil of this unit is typically 20 to 30 cm deep and has a dark brown (75 YR 33) or dark reddish brown (5 YR 33) medium sandy loam texture with abundant stones.

7.4.2   Below this topsoil, the subsoil is of a pale yellow (25 YR 74) or dusky red (25 YR 34) coarse sand with extremely abundant stones.

7.4.3   A typical profile for Unit 3 is given below:

| | |
|---|---|
| 0.30 cm 75 YR 33 | Medium sandy loam, moderately well developed find granular, abundant hard stones and common roots. |
| 30-45 cm 25 YR 74 | Coarse sand, single grain, loose, extremely abundant hard stones, few roots. |
| 45 cm + 25 YR 34 | Coarse sand, single grain, loose, many to abundant stones. |

7.5   SUMMARY OF SOIL UNITS

| Unit | Area in Hectares | % of Survey Areas |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| TOTAL | | |

## 7.6    SUMMARY

Of the site   % is classified as Subgrade 3a,   % as Subgrade 3b and       % as Grade 4.

Three soil units are identified, with Unit 1 covering   %, Unit 2 covering   % and Unit 3 covering  %, Unit 3 has previously been disturbed.