

15.0 SOILS AND AGRICULTURE

Introduction

- 15.1 This section considers the implication of the proposed southern extension of Cloud Hill Quarry on the soils resource and any implications for agriculture. It relies for its source information primarily on a report prepared in 1995 by Humphries Rowell Associates in connection with the last application to extend the quarry. This survey covered an extensive area to the south of the quarry that includes the vast majority of the current application site.

Site Description

- 15.2 The application site covers an area of 10.75 hectares, which comprises the quarry extension area (6.4 hectares) and previously worked quarry area to be used for overburden deposit (4.35 hectares). The area of the proposed quarry extension is located at an elevation of around 80mAOD with gentle to moderately sloping relief. The underlying geology of the application site comprises Triassic Sandstones and marls which overlie the Carboniferous Limestone.
- 15.3 Only a small part of the mineral extension area is currently in agricultural use. At the eastern end of area is a small field of around 1.2 hectares of which around 50% is located in the application site. The largest, central part of the quarry extension primarily contains an area of regimented commercial woodland together with occasional hedgerows, amenity planting and a surfaced right of way. In the north west corner of the extension area is a further small agricultural field, approximately 0.4 hectares of which is located within the application site. The application would therefore directly affect approximately 1 hectare of existing agricultural land.
- 15.4 The agricultural land quality as shown on Sheet 121 of the Agricultural Land Classification of England and Wales (MAFF, 1971) is provisionally ALC Grade 3.

Survey Details

- 15.5 The survey was undertaken with the use of a hand auger and spade to a maximum depth of 1.2m wherever possible. Sample points were based on a 100m grid pattern and the soil profiles were noted using published terminology (Hodgson 1976). Additional soils information required for the ALC assessment was noted. A soil pit was excavated in the application site to establish the structural condition of the main soil types existing at the site.
- 15.6 The location of the survey points and soil pit are identified on Drawing CH 15/1, together with the soil types identified. The agricultural land classification resulting from the survey is shown on Drawing CH 15/2.

Soil Physical Characteristics

- 15.7 Two main soil types were identified within the survey area (Drawing CH 15/1).
- Soil Type 1 is the most widespread soil within the survey area and consists of a well drained fine sandy clay loam over fine loam, becoming sandier at depth. Typically a stoneless dark grey fine sandy clay loam topsoil (typical thickness 30cm) overlies a fine dark red brown sandy loam subsoil (typical thickness 20cm). This grades into a red brown loamy sand to sand,

characteristically very slightly to slightly stony comprising small flint and soft sandstone fragments.

- Soil Type 2 is located in the lower lying parts of the survey area and consists of poorly drained heavy textured fine medium clay loams over mottled heavy clay loams and clays. A dark grey brown medium clay loam topsoil (typical thickness 28cm) overlies a mottled dark grey medium to heavy clay loam subsoil (typical thickness 35-40cm). This grades into a mottled paler grey loam to clay lower subsoil horizon.

Agricultural land Classification

- 15.8 To establish the ALC Grade of the land within the survey area, the 1988 MAFF guidelines and criteria were used to ascertain the dominant limiting factors affecting the agricultural land quality. It was concluded that climate was not a limiting factor. The land is gently to moderately sloping(1-7°) and therefore topography is not considered a limitation.
- 15.9 The main potential limiting factors are soil wetness and soil droughtiness. The sandy textured soils of soil type 1 were not considered a limiting factor, however the heavier textured clay loam soils of soil type 2 were placed in either Wetness Class III or IV. The medium clay loam topsoils of soil type 2, when related to these wetness classes, limits the ALC grade of this lower lying land within the western part of the site to Grade 3b (Drawing CH15/2).
- 15.10 The sandy textured soils of soil type 1 are potentially affected by droughtiness, and because of sandy and stony subsoil are limited to ALC Grade 2.
- 15.11 Recommendations are given in the report for the stripping and storage of the soils.
- 15.12 The 1995 survey covered approximately 80% of the current application site, and given the proximity of sampling point to those parts of the current application site that were not within the survey area it is possible to extrapolate the ALC in this area. It is clear that the ALC 3b grading applies to the low lying land running along a disused ditch or watercourse which runs northwards through the survey area and into the northern end of the applications site.
- 15.13 The 1995 survey considered the majority of the land to be ALC Grade 2 (73%), with the remaining land Grade 3b(27%). Based on the results of this survey it is considered that a similar division of gradings would apply to the application site. On this basis the grading of the application site would be as shown in Table 15/1.

**Table 15/1
ALC Grades**

ALC Grade	Area (Ha)	Percentage Cover (%)
Grade 2	4.66	73
Grade 3b	1.72	27

NB the above table includes approximately 1 hectare of land occupied by existing screen bund and disused railway embankment

Assessment of Impact

- 15.14 On the basis of the above the development would result in the loss of a maximum of 4.66 hectares of Grade 2 land, the majority of which is not currently in agricultural use. All the soil resources on the site will, however, be re-used within the overall restoration scheme for the quarry complex.
- 15.15 The importance of protecting higher quality agricultural land has diminished greatly over recent years as the emphasis has switched from food production to encouraging a more diverse rural economy. Thus policy in the 1970s and early 1980s which was biased in favour of protecting high quality agricultural land have steadily been diluted over recent years.
- 15.16 For example, procedural arrangements introduced in 1987, required that proposals which were not in accordance with a development plan only needed to be referred to MAFF if they were likely to result in the loss of more than 20 hectares of best and most versatile land. The Cloud Hill proposals affect only 4.66 hectares of such land. The implication was that relatively small areas of agricultural land, even if of high quality, were of no national significance. By the late 1990s and early 2000s the involvement of DEFRA (the successor to MAFF) was much reduced and the branch responsible for undertaking field surveys to ascertain land quality was disbanded.
- 15.17 The Agenda 2000 agreement introduced the reductions in the levels of support previously provided through the Common Agricultural Policy (CAP) and placed an increasing emphasis on sustainable development. As a result the emphasis on the protection of the “best and most versatile” agricultural land changed and the powers of MAFF to intervene in decisions on the “best and most versatile” land were reduced.
- 15.18 In February 2005 PPG 7 was replaced by Planning Policy Statement 7 Sustainable Development in Rural Areas, originally published in 2004, which reflects the changes that have taken and continue to take place in the management of the countryside and outlines the Government’s objectives for the future of rural areas. These are:
- To raise the quality of life and the environment in rural areas;
 - To promote more sustainable patterns of development;
 - Promoting the development of the English regions by improving their economic performance so that all are able to reach their full potential;
 - To promote sustainable, diverse and adaptable agricultural sectors.
- 15.19 These trends of reducing emphasis on agricultural land quality culminated in the publication of Planning Policy Statement 7 *Sustainable Development in Rural Areas* in February 2005. This reflects the changes that have taken place and continue to take place in the management of the countryside and sets out the Government’s national policies on different aspects of land use planning in England. It no longer refers to the “best and most versatile” land as a national resource, but considers its occurrence on a site to be only one of a whole range of considerations that should be taken into account in the determination of planning applications. The wording of the relevant paragraph, Paragraph 28 is:
- ‘The presence of best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification), should be taken into account alongside other sustainability considerations e.g. Biodiversity; the quality*

and character of the landscape; its amenity value or heritage interest; accessibility to infrastructure, workforce and markets; maintaining viable communities; and the protection of natural resources, including soil quality, when determining planning applications.'

- 15.20 Local development plans are expected, in due course, to follow national policies so that even although there may be a current local policy which appears to afford more protection to best and most versatile land, this will duly be replaced by one more in accord with national objectives.
- 15.21 Over the same general period as the emphasis on agricultural land quality has declined, beginning in the late 1980s but particularly since 2005 there has been recognition that mineral extraction and/or landfill sites can provide restoration opportunities which are more in accord with wider countryside objectives. Thus an emphasis on restoration to an agricultural afteruse has been steadily replaced by recognition that restoration, as is proposed at Cloud Hill, to woodland/wetland or other ecologically interesting afteruse is a more desirable course of action.

Conclusions

- 15.22 The proposals will result in the loss of up to 4.66 hectares of best and most versatile agricultural land of which only around 1 hectare is in agricultural use. The mitigating aspects are:-
- The amount of agricultural land involved is relatively small;
 - The importance placed on the protection of agricultural land has been greatly reduced and land quality is now only one of a whole range of considerations that should be taken into account in the determination of planning applications;
 - The soil resource would be preserved for use in the restoration of the quarry
 - The restoration proposals overall will provide land with a considerably enhanced ecological value as compared to what presently exists.