

COMMENTS ON AGRICULTURAL LAND CLASSIFICATION AND RESTORATION PROPOSALS FOR TOWPATH OPENCAST COAL SITE, LEICESTERSHIRE/DERBYSHIRE BORDER

1. INTRODUCTION

- 1.1 A site of approximately 50 ha to the north east of Overseal and astride the County boundary between Leicestershire and Derbyshire is the subject of a planning application for opencast coal extraction.
- 1.2 The site principally consists of disturbed land with only two small fields of approximately 3.3 ha in extent in the south east of the site being presently undisturbed. Of these the larger field (approximately 2.5 ha) has been used for horse grazing while the smaller field is used for informal recreation. In the north and west of the site are fields which are disturbed/restored used to some extent for the grazing of horses. The remainder of the site consists of land which is disturbed and not used for any agricultural purposes. This remaining land consists of very rough grass and scrub with unvegetated areas of hard standing, former workings and overburden storage areas.
- 1.3 A report to accompany the planning application on the agricultural land quality and soil resources and their re-use on restoration has been prepared by Reading Agricultural Consultants (RAC). A validation survey was carried out by the ADAS Resource Planning Team. The comments in this report are based primarily on the RAC report as the proposals within the planning application refer to the RAC documents as to the operational procedures for soil resource use and restoration of the site.

2. AGRICULTURAL LAND CLASSIFICATION

- 2.1 The RAC report identified approximately 15.5 ha of land within the site presently in some form of agricultural usage. Within this land the undisturbed field in the south east, constituting 2.5 ha, is assessed as Subgrade 3b quality. The disturbed/restored areas of some 13 ha in extent are assessed as Grades 4 and 5.
- 2.2 The validation survey carried out by ADAS also found the undisturbed field to constitute land of Subgrade 3b quality. The disturbed/restored land was also found to be as described in the RAC report and hence was assessed at no higher than Grade 4 quality, with much of the area being of worse quality.

3. SOIL RESOURCES

Topsoil

- 3.1 RAC identify only a limited area within the site as containing recoverable topsoil resources consisting of the undisturbed land in the south east and the restored land in the north and west. This was confirmed by the ADAS survey as were the thicknesses of the topsoil horizons. However, the RAC report states that all the topsoil within the site should be treated as a single resource (paragraph 2.3.1). As the topsoil is only very thin on the restored areas the possibility of mixing with the less desirable overburden material generally underlying the topsoil in such areas is high. Therefore, it is recommended that the better quality topsoil material stripped from the undisturbed areas should be regarded as a separate resource to that stripped from the restored areas.

Additionally, most of the restored grassland area in the west of the area surveyed by RAC is excluded from the application site and remains undisturbed by the workings, hence the total topsoil resource given by RAC of 21,300 m³ (paragraph 2.3.1) is probably too high an estimate.

Subsoil

- 3.2 The subsoil within the undisturbed area in the south east is regarded as the best material for the land to be restored to agriculture. Similar material is stated as occurring in the restored areas to the north and west of the site (paragraph 2.3.2), however, during the ADAS survey the horizons below the topsoil in those areas was found to consist largely of grey weathered shale materials with limited amounts of subsoil material.
- 3.3 As for the calculation of topsoil resources by RAC the area in the west of the site to remain undisturbed by the workings has been included in the assessment of subsoil resources.
- 3.4 Other less favourable materials within the site are also considered as potential subsoil materials. Only the overburden stored on site and material from strongly disturbed areas are specifically excluded from re-use on areas to be restored to an agricultural usage by RAC. However, care will be required to properly assess the less favourable material and its potential for re-use for agricultural restoration.
- 3.5 The acknowledgement at paragraph 2.3.5 that all the restored land, except wetlands, will require comprehensive underdrainage is to be welcomed.

4. SOIL HANDLING

- 4.1 Only general principles are outlined for soil handling, restoration gradients and drainage with no specific methodologies being given. Care will be required to recover useful soil materials from the site and greater detail should be given regarding soil handling criteria, particularly for the areas of undisturbed land. The proposal to only strip and move soils in dry weather, probably in the window between May and October, will need to be taken into consideration for the phasing of the site. It will be necessary to ensure all soil moving operations

are completed prior to winter and no soils are left unvegetated over the winter period.

5. RE-USE OF SOILS

5.1 The recommendation by RAC that a minimum settled thickness of topsoil of 200 mm would be required for restored agricultural land used for grazing or 250 mm for more intensive use do not appear to take into account the volumes of topsoil available within the site. The restoration concept (Plan 6) indicates a total area of approximately 8 ha to be restored to agriculture. This would be likely to require all the topsoil resources available within the site. The resources available and the restoration strategy therefore require careful consideration if any topsoil is to be used elsewhere in the restored site.

5.2 It would be preferable to use the subsoil from the undisturbed land within the site for land restored to agriculture. However, any other subsoil materials used should, as stated by RAC, be free from debris and pollutants.

5.3 The generalised principles for aftercare given will require more specific proposals for the land restored to agriculture.

6. CONCLUSIONS

- The agricultural land quality within the site was confirmed by ADAS.
- The undisturbed topsoil should be treated as a separate resource from topsoil stripped from other areas of land.
- A revised estimate of topsoil resources is required to take into account land not to be worked.
- The subsoil materials to be used for the restoration of agricultural land needs to be the highest quality available on site.
- Careful control will be required in the removal of debris from subsoil materials to be used for restoration.

- Soil handling criteria are required if the restoration is to be successful. The materials on site are generally heavy textured and care will be required in their handling.

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