



Soil Resource and Agricultural Land Assessment

Soil resource, on a national scale, is increasingly recognised as a highly valuable asset. Often, developers will be required to undertake surveys, assessments and measures to protect natural soils on greenfield sites. By working with you and understanding the unique assessment and mitigation requirements of your projects, we are able to provide the right services and solutions to help you navigate planning and post-consent requirements from initial feasibility, through to EIA, condition discharge and monitoring of mitigation.

Soil – a valuable resource

The importance of soils is now being recognised in a far wider context than as a medium for growing crops and grazing livestock. For example, soils can act as a carbon store (particularly peaty soils); as seed banks and gene pools; and can absorb water, buffering the effects of heavy rainfall and flood events.

Agricultural Land Classification (ALC) and Greenfield Development

Greenfield land in the UK is divided into grades in the Agricultural Land Classification (ALC) system depending on its capability for growing crops and grazing livestock. Grade 1 is excellent quality agricultural land; whereas Grade 5 land is classed as very poor quality.

Best and Most Versatile Land (BMVL)

BMVL is defined as land of ALC Grade 1 to 3a. The National Planning Policy Framework expects Local Planning Authorities to take account of BMVL in making decisions on which land should be allocated for development. ALC is becoming an important topic for greenfield development sites. As demonstrated in Defra's policy document *Safeguarding our Soils*: "We must ensure that planning decisions take sufficient account of soil quality, particularly when significant areas of the best and most versatile agricultural land are involved".

ALC Survey & Soils & Agricultural Environmental Impact Assessment (EIA)

ALC has been mapped for the whole of England and Wales at 1:250,000 scale. This gives an indication of the grade of land but is very large scale, may not be highly accurate for individual sites and does not differentiate between sub-grades 3a and 3b. If a development site is shown as Grade 3, a site survey may be needed to establish how much of the site is BMVL.

This information can form an important part of Land Use and Soils Impact Assessment for planning applications.

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Soil Resource Survey

Where a development involves large scale earthworks, it's likely that a soil resources survey will be required, either as part of the planning application or pre construction phase. This classifies the soil types on a site and enables mitigation to be tailored to the soil type to avoid compaction, erosion and degradation of soils. Soil Resource and ALC surveys can easily be combined for cost-efficiency.

Soil Management Planning

Soil Management Plans (SMPs) present the results of a Soil Resource Survey with the necessary mitigation and method statements needed during earthworks.

A SMP, underpinned by a robust soil resource survey, forms a transparent way to discharge planning conditions on soil protection. It gives the earthworks contractor a practical document and shows clear methods of working so that they can work within the planning requirements. It also provides a sound basis for construction phase monitoring and auditing of environmental performance.

Case Study – Linear Infrastructure

Royal HaskoningDHV supported a client to discharge pre-construction planning conditions for a 47km cable route. The client has undertaken long-term engagement with the large number of agricultural land owners and tenants involved. We supported this process with survey and reporting to reassure landowners of the commitment and protocols in place to protect and reinstate their land as close to its original condition as possible. The SMP provides clear plans and instructions highlighting sensitive soils (e.g. following heavy rain) which enable the contractor to plan

the earthworks programme around this.

Working with leading UK soil science specialists, Royal HaskoningDHV has submitted survey and SMP reports, and negotiated with the local authority's soil specialist to successfully discharge the relevant planning conditions and provide clear and auditable parameters for the cable installation contractor to work within during the construction phase.

Case Study – Habitat Creation

Our client was installing a substation on greenfield land. As part of the project's suite of environmental enhancement measures, approximately 1.4ha of species-rich grassland would be created adjacent to the substation site. Our team of ecologists worked with soil science specialists to provide baseline characterisation of the site's soils and methodologies for adjusting soil conditions to support this habitat and promote its establishment.

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