Guidance Document 1

Appendix 2

Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

BRITISH SOCIETY OF SOIL SCIENCE

The British Society of Soil Science (BSSS) exists to promote the study, public understanding and application of soil science. The Society's *Working with Soil* initiative aims to ensure those giving advice on soil-related matters have the appropriate skills and expertise.

This guidance note is written for development planning and control professionals. It will help them evaluate Agricultural Land Classification (ALC) reports submitted in support of a planning application or spatial plan submission in England and Wales.

Background to Agricultural Land Classification

It is Government policy to protect the nation's 'best and most versatile land' for agricultural production. The location of such land is determined by use of the Agricultural Land Classification system – the *Revised guidelines and criteria for grading the quality of agricultural land* (MAFF 1988) [1]. This interprets information about the underlying soil, landscape and climate to place land in one of several classes according to the severity of limitations on agricultural use. The ALC system (MAFF 1988) is the **only** approved system for grading agricultural land quality in England and Wales. The top three grades (1, 2 and 3a) are the nation's Best and Most Versatile (BMV) land which is recognised by the National Planning Policy Framework [2] (England) and Planning Policy Wales[3]. Where significant development of agricultural land is necessary, local planning authorities are required, where possible, to focus development of agricultural land on areas of poorer quality in order to retain grades 1 to 3a for agricultural production.

Proficiency in ALC Survey

Grading of land using the ALC system is not straightforward. For individual development sites this normally involves a detailed ALC field survey, according to the MAFF 1988 ALC guidelines. Proficiency in the conduct of an ALC survey requires knowledge and experience of field soil survey and the interpretation of soil, topography and climate data. There are comparatively few experts capable of carrying out ALC to a sufficient professional standard. For this reason, BSSS has published a professional competency document[4] that outlines the qualification, knowledge, skills and experience required to carry out ALC and offers a training course to raise awareness of the full complexity of the system.

It is important that planning decisions are made using reliable and accurate ALC information. However there is no register of qualified ALC surveyors and no legal framework for chartership. As a result, ALC advice may be given by people with a wide range of experience and qualifications. The following guidance is offered to help you assess the likely quality, accuracy and reliability of the ALC information and survey reports that cross

British Society of Soil Science
Cranfield University, Building 42a, Cranfield, Bedfordshire MK43 0AL
T: +44 (0)1234 752 983 F: +44 (0)1234 752 970 E: admin@soils.org.uk
www.soils.org.uk

Appendix 2.

Guidance Document 1

Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

BRITISH SOCIETY OF SOIL SCIENCE

your desk. If the answer to any of the checklist questions is 'FAIL', then there may be justification in seeking a professional assessment of the report's quality and reliability. ALC surveys can be influential in planning decisions. They can be subject to specialist challenge at any point in time, even years in the future. It is very important reports are assessed thoroughly.

ALC reports

There is no approved format for ALC reports. The quality of reports - and reliability of methods / findings - can vary significantly. However good quality reports will follow a fairly standard structure and content, using the MAFF 1988 ALC guidelines.

Assessment of reports should ideally be done by specialists. Non-specialists can make an initial assessment using the checklist below. If in doubt, refer to specialists in Natural England or Welsh Government. The checklist is not failsafe but it provides indicators to identifying sound reports, which use approved methodology and clear evidencing to produce reliable conclusions.

Validation process (Stage 1)

Reports produced or validated by, or on behalf of, Government (post 1 January 1989) should not need specialist referral.

Reports by specialist ALC companies are typically low risk but still need assessment.

In any of the situations below, refer for specialist opinion:

1	The survey has **not** used *"the Revised guidelines and criteria for assessing the quality of agricultural land"* (MAFF 1988) to determine ALC grade.
2	The survey was carried out **prior to** 1 January 1989 (before introduction of the 1988 ALC guidelines).
3	There is no evidence of field survey work; such as pits, auger borings and lab samples.
4	The ALC grading contradicts: (a) A detailed Post 88 ALC survey on MAGIC for England or Lle - the Predictive ALC and ALC site surveys for Wales (b) Any other validated ALC survey.

Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

BRITISH SOCIETY OF SOIL SCIENCE

5	The ALC grading is at odds with background checks. For example the site is known to flood or lies close to a river but flooding is not mentioned in the report.
6	No ALC grade map is included.

For all other situations:

Good quality ALC reports follow a similar structure. A good report should be based on a field survey. It must contain descriptions of the background and methodology, assessment of site factors (e.g. gradient & flooding), description / assessment of grading, a table showing ALC grade areas and a map to accompany it. It should contain references. A schedule of soil auger borings / pits, and a map of their locations should be included.

Validation process (Stage 2)

If a schedule of auger borings and soil pits is not included, please request them before validating. If not provided on request, refer to ALC specialists in Natural England/Welsh Government.

The checklist below is a structured guide when reading reports. Each question relates to information included in a good report. Each question has 3 possible outcomes:

PASS	Normally expected in a good report.
CONCERN	Normally expected in a good report, but if absent this raises a concern. There is no reason to automatically refer to specialists for individual concerns. Multiple concerns could justify referral.
FAIL	Normally expected in a good report, its absence is a significant issue or omission. The report should not be accepted without referral to specialists.

Guidance Document 1

Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

BRITISH SOCIETY OF SOIL SCIENCE

Background			
1	Is the company / author a specialist in ALC?	PASS	CONCERN
2	Have published soil maps been mentioned[5]?	PASS	CONCERN
Climate data			
3	Is *interpolated*[6] climate data included for the site (esp. Field Capacity Days (FCD), Moisture Deficits (MD) and Maximum grade on climate)?	PASS	FAIL
4	Is the data consistent with that expected for the area?	PASS	FAIL
Site and standalone limitations			
5	Have gradients, micro-relief and flooding been considered / acknowledged?	PASS	CONCERN
Soils and interactive limitations			
6	Have topsoils and subsoils been field surveyed? References to soil pits, auger samples & lab samples should be included.	PASS	FAIL
7	Are the soil types clearly described, including reference to gleying, slowly permeable layers (SPL), soil wetness class (SWC) and drought?	PASS	FAIL
8	Have the reasons for ALC grading been clearly described?	PASS	FAIL
9	Have soil structure and porosity been described?	PASS	CONCERN
10	Have soils been described using Soil Survey Field Handbook (Hodgson 1997[7])?	PASS	CONCERN
11	Have soils been described using Munsell[8] soil colour notations?	PASS	CONCERN
Conclusions and references			
12	Is there a table clearly showing areas of ALC grades?	PASS	CONCERN
13	Is there a list of references (normally including Soil Survey of England and Wales mapping, the MAFF 1988 ALC guidelines, Munsell soil colour charts and the Soil Survey Field Handbook – Hodgson 1997)?	PASS	CONCERN
14	Have the limitations been justified when concluding the ALC grade(s) on the site?	PASS	FAIL
Schedule of auger borings and soil pits			
15	Has a map of auger boring & soil pit locations been included?	PASS	FAIL
16	Have laboratory analyses been included to confirm topsoil particle size distribution?	PASS	CONCERN
17	Has a schedule of auger boring information been provided?	PASS	FAIL
18	Do the auger borings show horizon depths, colours and textures?	PASS	FAIL
19	Do the auger boring records clearly show soil wetness class?	PASS	FAIL

British Society of Soil Science
Cranfield University, Building 42a, Cranfield, Bedfordshire MK43 0AL
T: +44 (0)1234 752 983 F: +44 (0)1234 752 970 E: admin@soils.org.uk
www.soils.org.uk

Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

BRITISH SOCIETY OF SOIL SCIENCE

20	Do the auger boring records clearly show topsoil stone content?	PASS	CONCERN
21	Do the auger boring records clearly show depth to gleying and depth to slowly permeable layer (SPL)?	PASS	CONCERN
22	Do the auger boring records clearly show moisture balance (MB) values for drought (Wheat & Potatoes)?	PASS	CONCERN
23	Has detailed soil pit information been provided in the report and do the pit descriptions show horizon depths, colours and textures?	PASS	FAIL
24	Do the soil pits / pit clearly show soil wetness class (WC)?	PASS	FAIL
25	Do the soil pits / pit clearly show moisture balance (MB) values for drought?	PASS	FAIL
26	Do the soil pit / pits clearly show soil structure and porosity in the subsoil?		CONCERN

[1] http://publications.naturalengland.org.uk/publication/6257050620264448
[2] https://www.gov.uk/guidance/national-planning-policy-framework Paragraph 170
[3] http://gov.wales/topics/planning/policy/ppw/?lang=en Paragraph 4.10.1
[4] BSSS Professional Competency in Soil Science No. 2 – Agricultural Land Classification – England and Wales https://soils.org.uk/wp-content/uploads/2020/11/WWS-Complete-Competencies.pdf
[5] Information on available published soil maps is available at www.landis.org.uk
[6] Climate data should be interpolated for the specific site from Climatalogical Data for Agricultural Land Classification (Meteorological Office 1989) http://publications.naturalengland.org.uk/publication/6493605842649088?category=5954148537204736
[7] Hodgson, J M (1997) *Soil Survey Field Handbook*
[8] http://munsell.com/about-munsell-color/how-color-notation-works/

January 2022 – version 3