

## ALC

The ALC was devised as a means of measuring the quality of the land which was independent of the way it was farmed. Using the same methodology any ALC assessment done now would be the same in 10 years or in 40 years whether the area grows crops or is covered by solar panels, and irrespective of the person carrying out the survey

As an Associate member of BSSS it is therefore extremely disappointing that Sunnica seem to have so little confidence in the DBSC report that they are afraid to allow SNTS experts, in the company of DBSC, access to fields across the site to verify the DBSC report, the findings of which differ significantly from those of the Soil Survey and previous ALC assessments of the same land,

The responses to concerns about the ALC filed by Sunnica at Deadline 4 simply re-iterates their statement without addressing the basic points of dispute.

BSSS guidelines<sup>1</sup> were developed specifically to help planners determine whether an ALC assessment has been done correctly or should be referred to independent specialists.

There are a number of points on which the DBSC survey falls short of meeting the required standard:

1. The ALC is not consistent with previous surveys by MAFF and ADAS and the Soil Survey
2. There is no map of the pit locations
3. Missing data points are assumed to be of a certain grade without evidence
4. The ALC is at odds with general background checks.
5. The number of points described as “on track” etc means that the ALC was not done on the basis of 1 boring per hectare as recommended
6. A provisional map of the proposed DCO site submitted by the applicant on p34 of REP4-03O shows approx. 50% of Lee Farm as grade 2 with the remainder as 3 (not divided into 3a/3b)

These points would be sufficient to raise doubts in the mind of qualified soil specialists about the veracity of the entire ALC

## Technical Note

In his Technical note (REP4-032) to NE Mr Baird addresses the gaps in the sample data. In 4.1.5 he details 17 points missing, of itself this amounts to 17ha which he then **assumes** will be Grade 4, despite also detailing the variability in fields. A further 7 missing points in this area are not explained at all. On Bay Farm he identifies points as being “on track”. This shows the inadequacy of sticking to a rigid grid survey and results in the resulting survey being less than 1 data point per hectare as recommended by NE.

### 4.1.6

BSSS guidelines clearly state that there should be a map of pit locations, with absence being a Fail on their assessment. The use of unidentified archaeological pits in “different fields” is both misleading and incorrect. It is notable that MAFF recorded 8 pits in their area of 189 ha compared to the 6 pits dug by Baird Consultancy in an area of 870 ha.

4.1.7 a Whilst cropping history of itself is not part of the ALC assessment the 1988 guidelines<sup>2</sup> do include comments on the range of crops and yields which can be expected on each Grade of land.

Grade 4 land is described as: *Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very*

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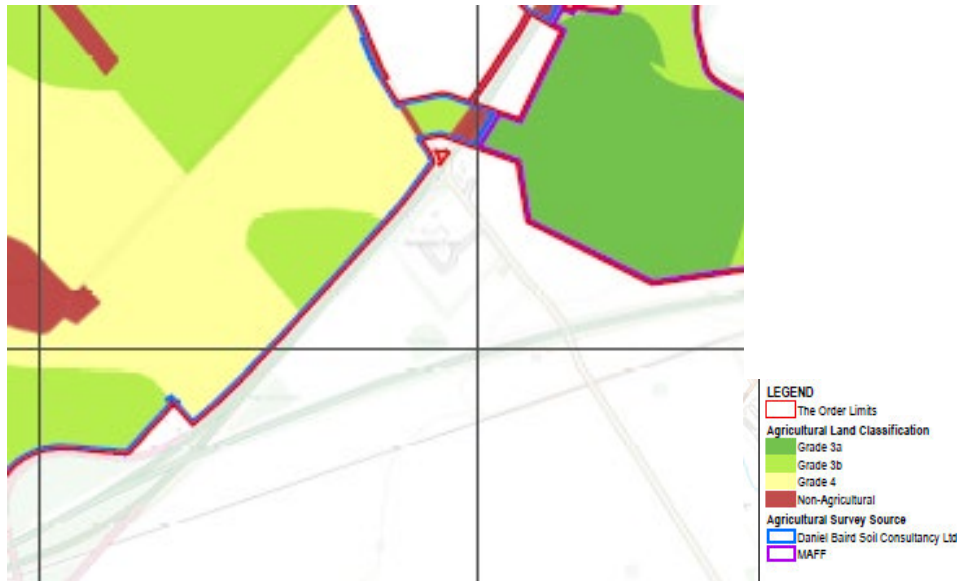
<sup>1</sup> BSSS Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction

<sup>2</sup> MAFF Agricultural Land Classification of England and Wales 1988

*droughty arable land.* Thus the range of indicative crops and the yields produced on the land are relevant in that they are very much at odds with this description. We contend that the substantial differences between the ALC Grade 4 description and local and recorded records of the range of crops grown and yields should give rise to concerns and require further investigation.

Previous ALC surveys on the land included in the scheme APP-115

Sunnica ALC Sunnica West



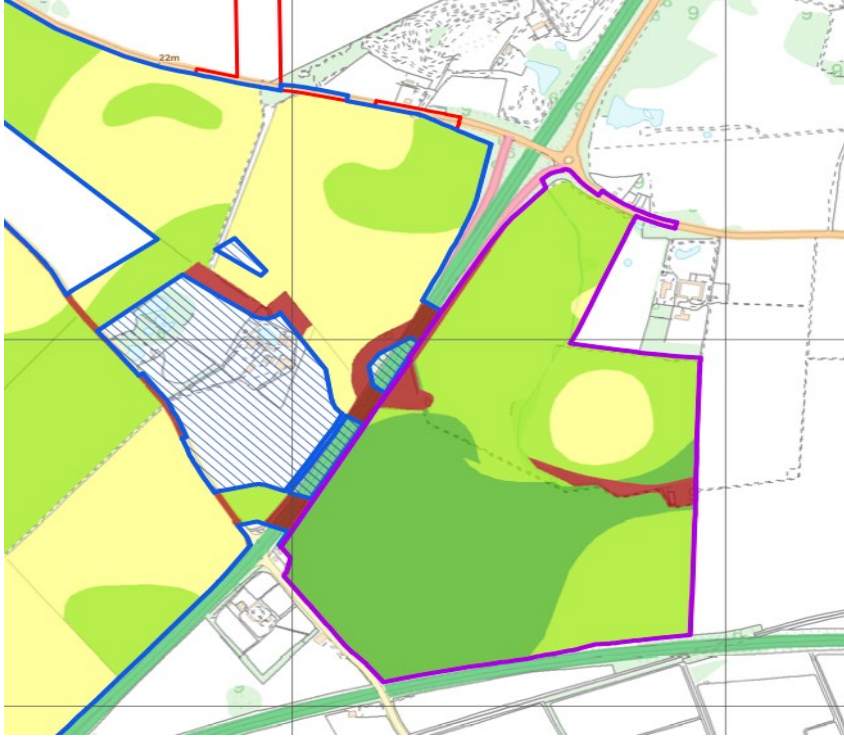
MAFF SURVEY p53 APP-115



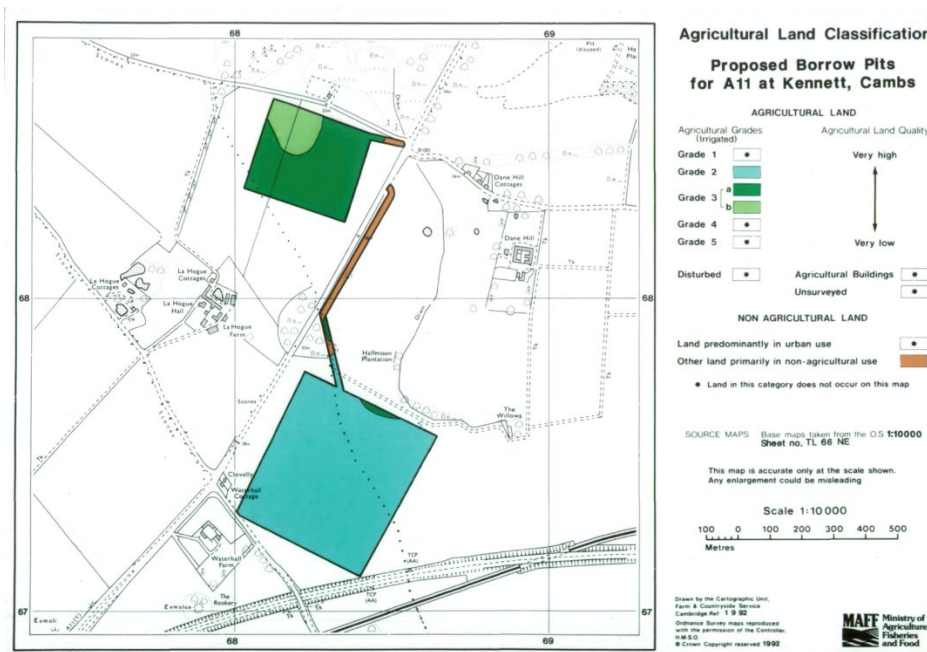
Pale Blue = Grade 2 downgraded by DBCS to grade 3A  
 Dark Green Grade 3a downgraded to 3b  
 Land immediately across A11 graded as Grade 4

Figure 12.2 from Sunnica PEIR (no longer available on website but on USB stick provided by applicant during consultation)

Yellow is Grade 4, light Green grade 3b



ADAS Survey. REB Top area is not irrigated and graded as 3a app 115



Sunnica persistently claim that the surveys by RAC and MAFF support their assessment. This is simply not correct. DBSC total assessment includes the figures from both MAFF and RAC surveys. If these figures are removed the DBSC survey was of 924 ha of which only 8.8ha was BMV, compared to the MAFF survey where 55% was BMV

#### 4.1.7 e

Patrick Stephenson is a highly experienced consultant with personal knowledge and experience of working in the area. He is a Technical Expert for UKAS, an elected Board Member for BASIS, sits on the AHDB Cereal and Oilseeds board and is a member of the Expert Committee on pesticides - he is well known and respected throughout the agricultural industry.

He has many years of conducting ALC assessments for planners, none of which have been questioned or rejected, unlike the applicants consultant<sup>3</sup> and it is totally wrong to suggest he has only limited experience. All of the data raised in 4.1.5 e as missing was submitted prior to deadline 4 and was available if the Applicant wished to examine it. Mr Stephenson meets the BSSS requirements for professional competence as set out in the Societies Compete Competences publication<sup>4</sup>

#### 4.1.7 f

The locations surveyed for SNTS were, in some cases, within metres of the Sunnica site and Grades of 2/3a were found next to soil which was graded as 4 by the applicant. This is further evidence of apparent discrepancy between expected and actual results which emphasises again the need for further investigation.

### **RAC ALC work**

#### 4.1.8 c

The area of land required for the AD plant comprised only 5.4% of the total farm arable land, hence there was no loss of abstraction licence volume. This cannot be used to assert no loss of abstraction will occur on the farms in the DCO where the land taken out of production on each farm will be a much higher percentage.

#### 4.1.8 d

Sunnica claim that the RAC ALC work contradicts a number of claims made by RAC at the hearing.:

1 Land growing high value crops is unlikely to be in Grades 3b and 4- this is clearly stated in the MAFF guidelines from 1988

2 PPS 7<sup>5</sup> guides Local authorities to take into account other factors such as fixed equipment including irrigation. The email exchange between Mr Baird and NE included in the Agricultural Baseline report also states that:

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<sup>3</sup> 'Moto', 'Savills Report' DBSC related at p124 of REP2-240d.

<sup>4</sup> [REDACTED]

<sup>5</sup> PPS 7: Sustainable Development in Rural Areas (ODPM)

**B11 Irrigation—When irrigation is practised and water supplies are adequate and reliable, the productive capacity of agricultural land and its importance relative to non-irrigated land of the same grade will often be significantly increased.**

3. Despite many assertions that assessment work by MAFF on an overlapping area of land is consistent with the report from Mr Baird this is demonstrably not correct. After removing the effects of irrigation the amount of land assessed by MAFF (regarded as independent by Sunnica) as BMV is **55.5%**, which contrasts starkly with the **0.94%** of land classified by Baird Soil as BMV- certainly casting serious doubts over the assessment by Baird Soil.

#### 4.1.10

Application for access to the land was requested of both Land owners and Sunnica and was denied by all parties.

The inconsistencies between the MAFF assessment, the NE predictions and SNTS work in the vicinity and that of the applicant, the missing data points where the classification is assumed, lack of a map of the pits and the insufficiency of the pits are all factors which render the Baird assessment unreliable.

Despite further requests for access to the land through the Examination process no dates have been forthcoming

## CARBON

#### 4.1.5

A report from DEFRA <sup>6</sup> states that the most significant threat facing our soils is from erosion by wind and water. Around 2.2 million tonnes of top-soil is eroded annually in the UK5, significantly affecting the productivity of soils and impacting on water quality and aquatic ecosystems through the silting up of watercourses. The total cost of soil erosion is currently estimated at around £45 million per annum including £9 million in lost production<sup>7</sup> Climate change may magnify these threats. Hotter drier summers will lower soil moisture levels and lead to greater levels of wind erosion. Wetter warmer winters and more regular extreme rainfall events may increase erosion through water runoff. Higher temperatures may also accelerate the loss of carbon from our soils by increased oxidation rates. All of which will increase the costs due to soil degradation, including from lost productivity.



<sup>6</sup> Safeguarding our soils – a strategy for England 2009

<sup>7</sup> Soil erosion costs primarily include loss of productivity, water treatment, damage to property and dredging stream channels (EA 2007)

In the webinars Sunnica<sup>8</sup> stated that it would take in the region of 5 years before any native grass formed an integrated sward. This is contrary to their assertion<sup>9</sup> that “the SMP will also cover the establishment of the permanent green cover at the suspension of arable cropping that will remain in place for the duration of the duration of the solar farm construction, operation and decommissioning”.

Over the 2+ year construction period, and until grass is fully established, the fields on Lee Farm where solar panel arrays will run downhill – contrary to Good Agricultural Practice- the risk of erosion is a real issue

On this highly fertile soil the lack of an integrated sward will also not prevent the growth of arable weeds which will be extremely strong competitors and which will require either mowing or spraying to prevent them completely dominating.

A report by published by Clarkson and Woods and Wychwood Biodiversity<sup>10</sup> showed the results of a survey of 11 solar farms. Of these only two had adhered the management plan and only one site had no cutting or spraying of weeds.

There is much contradictory work looking at carbon storage under grass as opposed to arable and a Natural England Review<sup>11</sup> concluded “Governmental and non-governmental organisations that provide advice and guidance that may have ecological implications have a duty to contribute to evidence towards their guidance, especially where evidence is lacking. In the case of solar farms, there is almost no evidence and research into their ecological impacts is urgently needed”

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<sup>8</sup> Webinar 3<sup>rd</sup> Oct 2020 1-02-00

<sup>9</sup> APP-123 p42,

<sup>10</sup> H. Montag, G Parker & T. Clarkson. 2016. The Effects of Solar Farms on Local Biodiversity; A Comparative Study. Clarkson and Woods and Wychwood Biodiversity.

<sup>11</sup> Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012) 2017