From: **Samantha Main** samzfairyz@hotmail.com
Subject: Fw: Soil Studies for Solar Farms
Date: 10 July 2023 at 13:46
To: solarcampaignalliance@groups.outlook.com SolarCampaignAlliance@groups.outlook.com, SCA2 sca2@groups.outlook.com

Hello everyone,

Please see below response I have received from Natural England. I very much doubt any of our developers are properly taking into consideration the second to last paragraph, but also the last paragraph is useful.

Still no response from the DLUHC to the same query.

Best wishes,
Sam
CARE Suffolk

From: SM-NE-Enquiries (NE) <enquiries@naturalengland.org.uk>
Sent: 10 July 2023 09:59
To: Samantha Main <samzfairyz@hotmail.com>
Subject: RE: Soil Studies for Solar Farms

Good morning,

Thank you for your email and apologies for the delayed reply. We asked a soil specialist within Natural England and they replied with the following information:

The Agricultural Land Classification (ALC) system classifies agricultural land according to the extent to which its inherent physical and chemical characteristics impose long-term limitations on agricultural use.
The ALC system uses one of six numbered grades, according to the 1988 MAFF *'Revised guidelines and criteria for grading the quality of agricultural land'*. The ALC grade reflects the lands long-term capability to support agricultural production and not the current land use or land management (i.e. inherent soil properties). Therefore, the current cropping system does not influence the ALC of the site.
All land which may experience temporary or permanent disturbance as a result of development, including Solar, should be subject to a detailed ALC and soil survey in line with the Guide to assessing development proposals on agricultural land - GOV.UK (www.gov.uk), so as to understand the impact of the proposed development on agricultural land and soils; inform master planning to minimise the impact on BMV agricultural land; inform suitable soil handling; inform restoration criteria and suitable re-use. Developers and Local Planning Authorities must consult Natural England for development proposals that are:

- likely to cause the loss (or likely cumulative loss) of 20ha or more of BMV land, if the land is not included in a development plan or
- not in accordance with an approved development plan and in addition (See Section 6.2 of link provided):

0.2 of link provided).-

- take account of smaller losses (under 20ha) if they're significant when making your decision.
- your decision should avoid unnecessary loss of BMV land.

Soil is a finite resource which plays an essential role within sustainable ecosystems, performing an array of functions supporting a range of ecosystem services, including storage of carbon, the infiltration and transport of water, nutrient cycling, and provision of food. It is recognised that a proportion of the agricultural land will change use. However, to both retain the long term potential of this land and to safeguard all soil resources as part of the overall sustainability of developments, it is important that the soil is able to retain as many of its many important functions and services (ecosystem services) as possible through careful soil management and appropriate soil use, with consideration on how any adverse impacts on soils can be avoided or minimised.

Natural England consider that if appropriate soil handling and soil management practices are employed based on the **site specific** soil properties, and the development is undertaken to high standards, the installation of the panels could result in limited soil disturbance and could be removed in the future with no permanent degradation in agricultural land quality (ALC grade). This relies on safeguarding the soil resources and agricultural land through the employment of soil handling good practice as set out in the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (publishing.service.gov.uk).

With regards to long term impact of the solar array on soil quality (which include properties that reflect current management practices, i.e. variable soil properties), there could be a disbenefit to the soil resource due to unknowns as a result of the solar development infrastructure. It is currently unclear as to what impact the solar panels may have on the soil properties such as carbon storage, structure and biodiversity. For example, as a result of changes in shading; temperature changes; preferential flow pathways; micro-climate; and vegetation growth caused by the panels.

Kind regards,

Carys
Adviser
Customer Engagement Team – National Delivery

www.gov.uk/natural-england

From: Samantha Main <samzfairyz@hotmail.com>
Sent: 20 June 2023 11:43
To: SM-NE-Enquiries (NE) <enquiries@naturalengland.org.uk>
Subject: Re: Soil Studies for Solar Farms

Good morning,

I notice that I've not yet had a reply to my original request.

In planning applications the soil grade or quality is measured by MAFFs 1988 report. But I am struggling to find any studies or evidence that actually show those measurable qualities are increased because of a solar farm being constructed on it.

Would you kindly let me know within 10 days whether you have any studies that show an increase in ALC soil quality on solar farms, and investigate why I've not had a response yet please?

I look forward to hearing from you.

Best wishes,
Samantha Main

From: Samantha Main <samzfairyz@hotmail.com>
Sent: 22 May 2023 18:26
To: SM-NE-Enquiries (NE) <enquiries@naturalengland.org.uk>
Subject: Re: Soil Studies for Solar Farms

Hi Stuart,

I live just west of Ipswich, Suffolk.

Kind regards,
Samantha

From: SM-NE-Enquiries (NE) <enquiries@naturalengland.org.uk>
Sent: Monday, May 22, 2023 5:11:14 PM
To: Samantha Main <samzfairyz@hotmail.com>
Subject: RE: Soil Studies for Solar Farms

Good Afternoon Samantha

Can you advise the area where you are located please.

Kind Regards

Stuart Harley
Natural England Engagement Team – Operations Delivery
Natural England
County Hall, Spetchley Road
WORCESTER, WR5 2NP
Tel: 0300 060 3900

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We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

In an effort to reduce Natural England's carbon footprint, I will, wherever possible, avoid travelling to meetings and attend via audio, video or web conferencing.

From: Samantha Main <samzfairyz@hotmail.com>
Sent: 19 May 2023 20:37
To: SM-NE-Enquiries (NE) <enquiries@naturalengland.org.uk>
Subject: Soil Studies for Solar Farms

Hello,

I am hoping you might be able to help me.

We have 3 proposed adjacent solar farms in our area. All on BMV graded agricultural land. One in the Higher-Level Stewardship scheme. All three developers claim that solar farms can improve the soil quality, but when asked none of them can provide any scientific studies or evidence to back up the claim.

One of the developers Flood Risk Assessment states that an estimated 10% of the top soil would be lost simply due to the construction activities on site. If this is true, then according to the ALC guidance the new topsoil depth on that site would become the most limiting factor and downgrade the land from 3a to 3b. Assuming they would all be affected by this, they would all be affected the same way. Though some grade 2 would become 3a it is still a lowering of quality.

Whilst the final solar panels themselves will sit lightly on the ground with minimal impact from the metal posts they stand on, as I am sure you are aware to turn a field into a solar farm requires a significant length of time being a construction site. Land is cleared of vegetation, levelled out or graded, soil is removed and/or compacted, and large areas are dug up and filled with cables, construction compounds and other infrastructure. This is not light work.

I have been told on a couple of occasions by solar developers that because set-aside land improves the soil, then solar farms will too. As I am sure you are also aware, a set-aside field does not become a construction site in the process. Also, the weather

aside field does not become a construction site in the process. Also, the weather interacts with the land and soil in different patterns to that of a field full of solar panels simply because the panels are in the way so-to-speak. The comparison of a solar farm to set-aside is akin to comparing apples and oranges.

I was wondering if you knew of any scientific studies, evidence, and/or case studies of solar farms that have improved the soil quality? I have also tried asking Solar Energy UK and several solar company developers. No one can provide anything to actually support this claim except that they say it is so. That is, if they reply at all.

Soil can become damaged very easily and very quickly. Even when we don't intend it to happen. Reversing it is not easy or quick.

I look forward to hearing from you.

Kind regards,
Samantha Main

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