BELVOIR SOLAR FARM,
LAND OFF MUSTON LANE,
EASTHORPE

AGRICULTURAL EVIDENCE
AND
SOIL RESOURCES MANAGEMENT PLAN

Volume 1: Text

March 2024

KERNON
COUNTRYSIDE CONSULTANTS LIMITED

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LAND OFF MUSTON LANE,
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AND
SOIL RESOURCES MANAGEMENT
PLAN

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Appendices

1 INTRODUCTION

1.1 An application for a solar farm together with all associated work, equipment and necessary infrastructure was refused planning consent on 11th September 2023 (22/00537/FUL).

1.2 Reason for refusal no 1 (RfR1) was as follows:

> "**The proposal seeks to remove Grade 2 and 3a 'Best and Most Versatile' land from food production which in the opinion of the local planning authority has not been adequately substantiated. The harm caused by the loss of best and most versatile land does not outweigh the climate change benefits of the proposal, contrary to the overall aims and objectives of policies SS1 and E10 (part 10) of the Melton Local Plan, the NPPF paragraph 174 and Policy 3 (part 4) and Policy 9 (part 4 (d)) of the adopted Bottesford Neighbourhood Plan**".

1.3 The decision of the Committee was taken contrary to the recommendation of officers, and accordingly only limited information is available to determine the concerns of the Council that resulted in reason for refusal no 1.

1.4 The majority of the site is poorer quality agricultural land, and only a small area, being the northern part of two fields and extending in total to 7.3 ha is of the "best and most versatile" (BMV) quality. This land will not be lost. The land quality will be unaffected by the installation of the solar panels, and agricultural use will continue. Fixed infrastructure will affect only 0.1 ha of BMV land, and that can be restored at decommissioning.

1.5 There is no policy to require best and most versatile agricultural land to be farmed for food production, and in actual terms the implications are negligible and insignificant in both a local and national context.

This Statement

1.6 This report accompanies an appeal against the refusal of planning consent for the proposed solar farm. The report includes a Soil Resources Management Plan (SRMP).

1.7 This report:

(i) sets out planning policy and guidance of relevance in section 2;

(ii) sets out an analysis of the Council's determination of the proposal in section 3;

(iii) describes the proposals, and introduces the Soil Resources Management Plan in section 4;

(iv) addresses the potential for loss of best and most versatile agricultural land in section 5;

(v) assesses the policy, practical and other considerations relating to food production of the best and most versatile land, as referenced in RfR1, in section 6;

(vi) sets out other benefits in section 7;

(vii) ending with conclusions in section 8.

The Author

1.8 This statement has been prepared by Tony Kernon of Kernon Countryside Consultants Ltd. My CV is set out in **Appendix KCC1**. I have been involved in development involving agricultural land and farm businesses, and the effects on land quality and soils, for over 35 years.

2 PLANNING POLICY AND GUIDANCE OF RELEVANCE

2.1 This section of my Statement considers:

(i) local plan policy;

(ii) neighbourhood planning policy

(iii) national planning policy

(iv) national policy statement;

(v) policy guidance

Local Plan

2.2 RfR1 for 22/00537/FUL references Local Plan (October 2018) policies SS1 and EN10 (10).

2.3 The reason for refusal sets out that the harm caused by the development does not outweigh the benefits, contrary to SS1. Policy SS1 identifies, inter alia, that:

"**Where there are no policies relevant to the application, or the policies which are most important for determining an application are out of date at the time of making the decision, then the Council will grant permission unless:**

i) the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or

ii) any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the national planning policy framework taken as a whole".

2.4 Policy EN10 (10) (not E10 as referenced in the decision notice) states that "**Proposals for renewable and low carbon energy technology, associated infrastructure and integration of renewal and low carbon technology on existing or proposed structures will be assessed both individually and cumulatively on their merits taking account of the following factors:**

10. High quality agricultural land".

Bottesford Parish Neighbourhood Plan 2020 – 2036 (made 2021)

2.5 Policy 4 of the Neighbourhood Plan follows residents' preferred criteria of avoiding using the best and most versatile land for development. Criterion 4 states: "**development should avoid being located on the highest quality agricultural land**".

2.6 Policy 9 covers renewable energy and lower carbon technologies. Criterion 4 supports development that delivers a renewable energy where it can be demonstrated that it "**d)**

does not result in the loss of the best and most versatile agricultural land in grades 1, 2 and 3a of the ALC".

National Planning Policy Framework

2.7 The National Planning Policy Framework (NPPF) (2023) sets out at paragraph 180 (b) that the economic and other benefits of the best and most versatile agricultural land should be recognised. It does not set any prohibition on the use, or loss, of such land.

2.8 Paragraph 181 and the related footnote 62 are set in the context of plan making. They are therefore aimed at local planning authorities and are not directly relevant for decision making. They require plans to allocate land with the least environmental effect, where consistent with other policies in the Framework. Footnote 62 states that "**where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, deciding what sites are most appropriate for development**".

National Policy Statements

2.9 The **Overarching National Policy Statement for Energy (EN-1)** (which came into force on 17th January 2024) may be a material consideration for all applications. The extent to which the NPS will be relevant will depend upon a case-by-case judgement depending upon the extent to which the matters are already covered by existing planning policy.

2.10 Paragraph 5.11.4 notes that "**development of land will affect soil resources, including physical loss of and damage to soil resources, through land contamination and structural damage. Indirect impacts may also arise from changes in the local water regime, organic matter content, soil biodiversity, and soil process**". Paragraph 5.11.12 notes that "**applicants should seek to minimise impacts on the best and most versatile agricultural land identified as land in Grades 1, 2 and 3a of the Agricultural Land Classification and preferably use land in areas of poorer quality (Grades 3b, 4 and 5)**".

2.11 The **National Policy Statement for Renewable Energy Infrastructure (EN-3)** (also in force from 17th January 2024) sets out at 1.1.1 that "**there is an urgent need for new electricity generating capacity to meet our energy objectives**". Paragraph 1.1.2 notes that "**electricity generation from renewable sources is an essential element of the transition to net zero and meeting our statutory** targets". The document then sets out

specific guidance for different technologies, with section 2.10 covering "Solar Photovoltaic Generation".

2.12 Paragraph 2.10.28 is set under the subtitle of "factors influencing site selection and design". It advises that while land type should not be a predominating factor in determining the suitability of the site's location, applicants should, where possible use non-agricultural land. Where the use of agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land.

2.13 The development of ground mounted solar arrays is not prohibited on land of ALC Grades 1, 2 or 3a paragraph 2.10.30 advises, but the impacts must be considered.

2.14 Paragraph 2.10.31 and 32 recognise that, at the NSIP scale, it is likely that applicants will use some agricultural land. Consideration should be given to whether continued agricultural use can continue to maximise the efficiency of land use.

2.15 Paragraphs 2.10.33 and 34 advise on the need for soil survey and encourage the development of Soil Management Plans to help minimise adverse effects on soil health.

2.16 Paragraph 2.10.68 recognises that "**solar panels can be decommissioned relatively easily and cheaply**". Paragraph 2.10.69 recognises that some infrastructure may be appropriately retained.

2.17 Paragraph 2.10.89 recognises the potential for solar farms to increase biodiversity value, in some cases resulting in significant benefits, especially on previously intensively managed land.

2.18 Paragraph 2.10.127 advises on ensuring that damage to soil during construction is mitigated and minimised, aiming to preserve soil health and soil structure to minimise soil carbon loss and maintain water infiltration and soil biodiversity.

2.19 Paragraph 2.10.145 advises that the Secretary of State should take into account the economic and other benefits of BMV agricultural land. The Secretary of State should ensure that the applicant has put forward appropriate mitigation measures to minimise the impacts on soils or soil resources.

Guidance

2.20 There is no definition of what is "significant" development in the context of footnote 62 of the NPPF. The threshold for consultation with Natural England is where there will be the loss (by sealing-over or permanent downgrading rather than a change of use) of more than 20 ha of BMV agricultural land (as set out in Appendix 4 (y) of the Town and Country Planning (Development Management Procedure) (England) Order 2015) (DMP Order).

2.21 There is no definition of what is meant by "loss" in the DMP Order. The IEMA Guide "A New Perspective on Land and Soil in Environmental Impact Assessment" (February 2022) is an industry best-practice guide for environmental assessment. This defines impacts for EIA purposes as "**permanent, irreversible loss of one or more soil functions or soil volumes (including permanent sealing or land quality downgrading)** …" (Table 3, page 49).

2.22 The IEMA Guide notes that this can include "**effects from temporary developments**", which it defines as follows: "**temporary developments can result in a permanent impact if resulting disturbance or land use change causes permanent damage to soils**".

2.23 Therefore, in respect of the guidance, the "loss" of agricultural land is where there is an irreversible loss of agricultural land or a downgrading of ALC value through permanent damage to soils.

2.24 The Planning Practice Guidance suite section on "Renewable and Low-carbon energy" advises at 5-013-20150327 that particular factors a local planning authority will need to consider include whether the proposed use of agricultural land has been shown to be necessary and poorer quality land has been used in preference, and the proposed use allows for continued agricultural use.

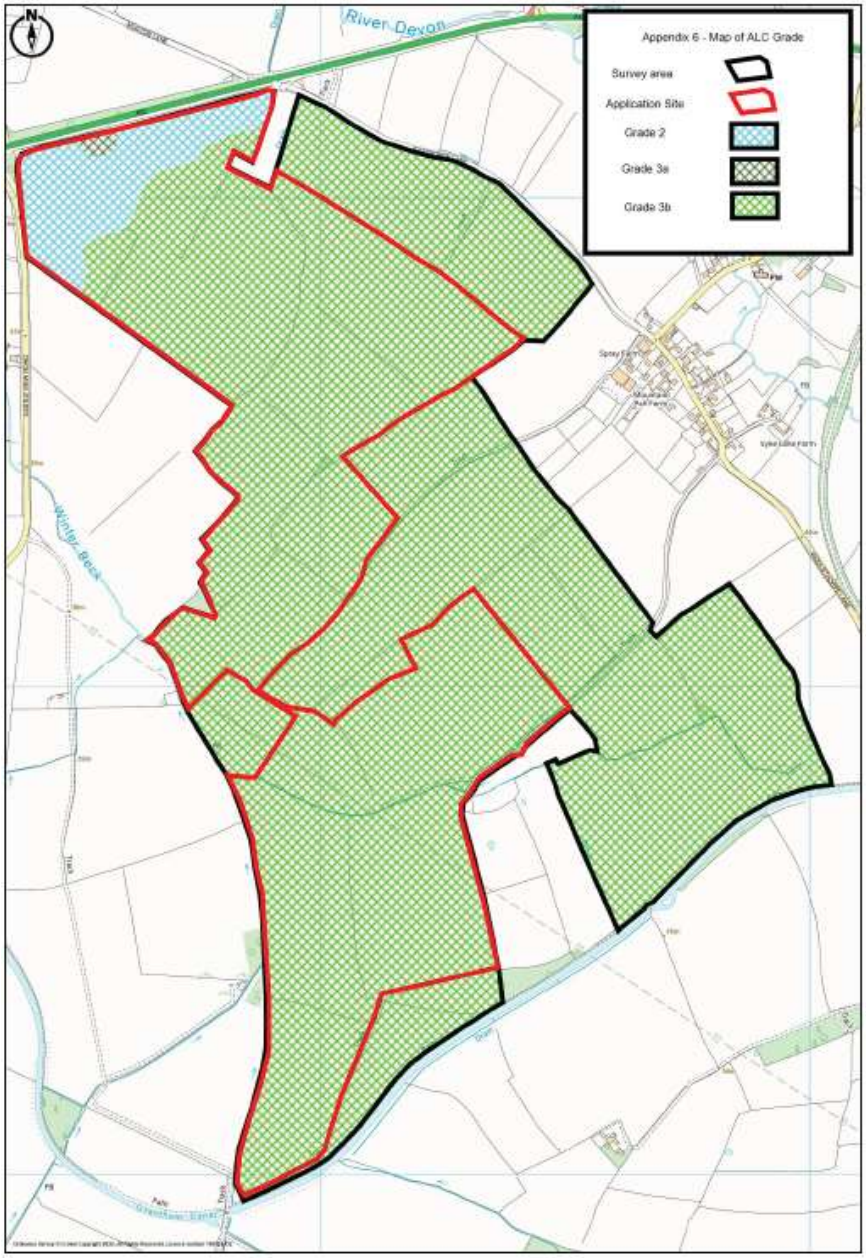
3 THE COUNCIL'S DETERMINATION OF 22/00537/FUL

The Application

3.1 The application was submitted in April 2022.

3.2 It was accompanied by an Agricultural Land Classification (ALC) report by AMET Property Ltd, which covered a wider area. The site boundary was shown on the ALC plan with a red line, and that plan is reproduced below.

Insert KCC1: ALC Plan



3.3 Chapter 8 of the Environmental Statement set out agricultural matters.

Natural England

3.4 Natural England's response of the 30th May 2022 noted that "**the proposed development would not appear to lead to the loss of over 20 ha "best and most versatile" (BMV) agricultural land**". Accordingly no objection was raised.

3.5 It was advised that any consent should be conditioned to safeguard soil resources, including the provision of soil resource information.

Officer Report

3.6 The report to Planning Committee considered "high quality agricultural land" and section 8.10 reviews these matters. The section notes the policy, as set out above. It notes that the ALC survey was subjected to a review commissioned by the Council, and can be accepted as a robust and an accurate reflection of agricultural land quality on the site (paragraph 8.10.8).

3.7 It is noted that BMV accounts for about 7.3% of the site (8.10.9).

3.8 Paragraphs 8.10.12 to 8.10.14 note that the development is reversible, that sheep grazing will continue across most of the site, that the site will be fully returned to unencumbered agricultural use at the end, and that a Soil Resource Management Plan can be provided by condition.

3.9 It is noted that there is neither temporary nor permanent loss of BMV land (8.10.15).

3.10 Most of the site is not of BMV quality. In respect of the small area that is of BMV quality, paragraph 8.10.21 states that "**it would be unreasonable to exclude this small parcel of land from the development of solar panels given its size and within a larger field**".

3.11 Paragraphs 9.8 to 9.10 consider the land quality issues and conclude that consent should be given.

Decision

3.12 As noted, the decision notes two key matters:

(i) the removal of Grades 2 and 3a from food production has not been adequately substantiated;

(ii) the harm caused by the loss of BMV does not outweigh the benefits.

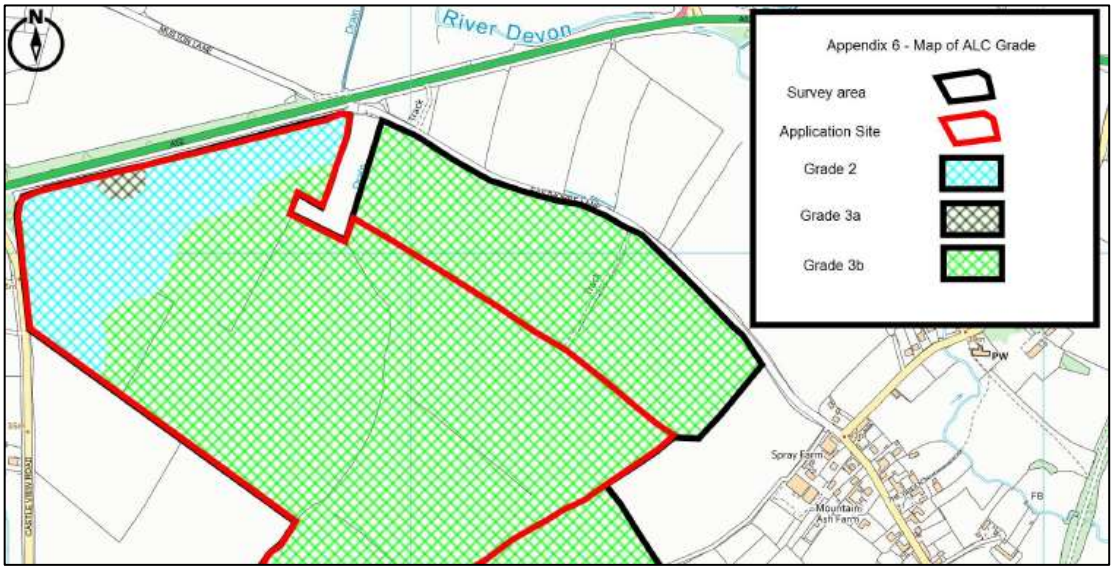
Analysis

3.13 The Reason for Refusal is precise, in that the Council's decision relates only to the land that is defined as the best and most versatile. The concern is:

- removal of BMV from food production when not adequately substantiated;
- harm caused by the loss of BMV is not outweighed by the benefits.

3.14 The BMV land is only the most northern part of the Site, shown below.

Insert 2: The BMV Area



3.15 The Council's reason for refusal is therefore directed only at 7% of the Appeal Site. The reason for refusal is not directed at 93% of the Appeal Site.

4 THE PROPOSALS AND THE SOIL MANAGEMENT PLAN

The Proposals

4.1 The proposals are shown on the Site layout and Landscape Strategy P19-2022-10 Rev Q, reproduced at **Appendix KCC2**.

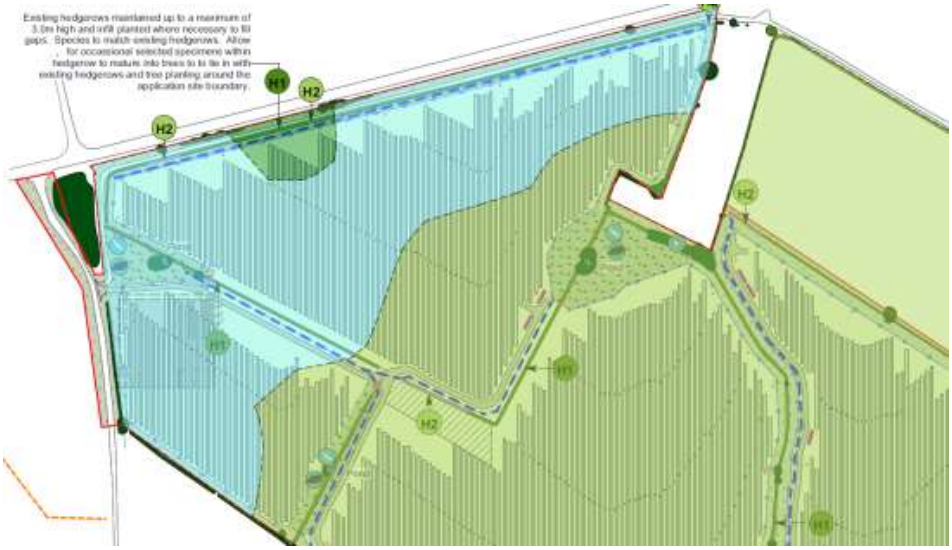
4.2 The reason for refusal refers only to land of BMV quality, which is the light blue area and the small dark green area shown on Insert 2 above. The proposals for that area are shown in an extract from the proposals plan in Insert 3 below.

Insert 3: Proposals for Grade 2 and Subgrade 3a Area

Area of BMV Land Involved

4.3 The proposals are superimposed on the area of Grade 2 on the plan below.

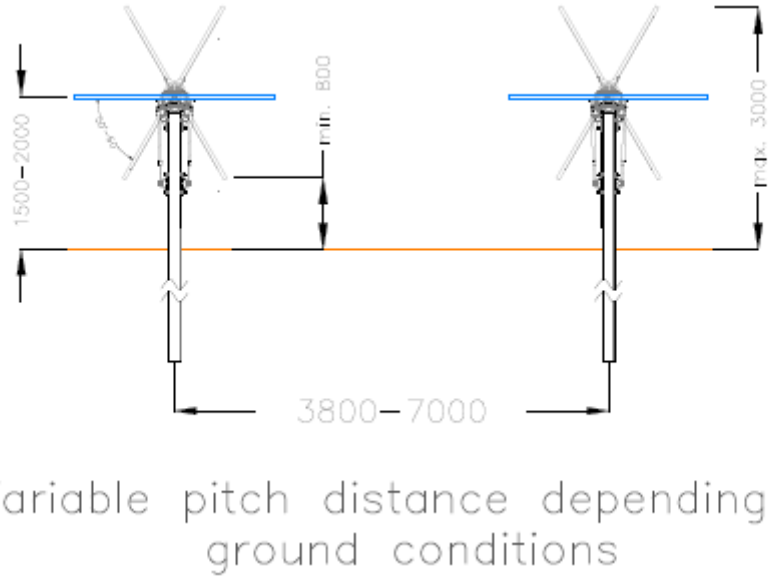
Insert 4: Proposals Superimposed on ALC Results



The Effect of the Proposals

4.4 The proposed panels will be trackers, involving the insertion of single legs into the soil with a north-south orientation. The modules are shown below.

Insert 5: Tracker Panel Details



4.5 The insertion of panel legs does not disturb the soil. The photographs below show examples of legs being inserted, and single legs after the installation process. These are from other sites.

Inserts 6-8: Legs Being Installed and Post-Installation

Location: Bentham Farm, Purton (2015).

Location: Tiln Farm, Retford (2023)

4.6 The legs to the panels do not, therefore, affect the agricultural land quality.

4.7 The bolting-on of the panels does not, subject to ground conditions, disturb the soil, and if localised surface damage results it is easily rectified when conditions allow, as shown below.

Insert 9: A Site After Panels Bolted On

Location: Bentham Farm, Purton (2015)

Insert 10: Localised Soil Disturbance Being Repaired.

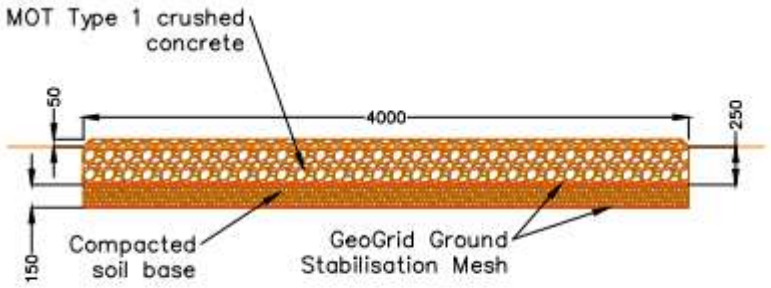
Location: Bentley Farm, Halland (2015)

4.8 As can be seen an access track is proposed mostly along the edge of the fields. This will run approximately as indicated on the photograph below, taken looking eastwards.

Insert 11: Approximate Route of Proposed Access Track

4.9 Access tracks are capable of being restored on decommissioning. They are constructed as temporary routes. The topsoil is removed and stored to the side of the track in a shallow bund. A permeable matting is then laid down, and stone is placed on that and compacted. The proposal is shown below. There is then a photograph illustrating the methodology (being part of a construction compound).

Inserts 12 & 13: Track Methodology



Access track cross section

Location: Elsham-Lincoln Pipeline, 2023

4.10 However even if the track was not restored on decommissioning (it is anticipated that some landowners may request tracks to be retained) then the area of Grade 2 land affected by the proposals will be of the order of 900 square metres (225 metres by 4m). This is under 0.1 ha.

Soil Management Plan

4.11 An outline Soil Resources Management Plan (SRMP) is set out in **Appendix KCC3**.

4.12 The SRMP covers the development of the whole solar farm. The construction period is expected to be 6-9 months. So far as possible or if required, the access tracks will be installed early in the process, as that will enable vehicles to access the land within the solar farm without compacting soil.

4.13 Construction compounds will be built early on, such as the example shown below. Those can be removed in suitable conditions after the installation is complete.

Insert 14: Example Construction Compound

Location: Elsham-Lincoln Pipeline, 2023

4.12 The SRMP describes how soil will be considered at all stages of construction, operation and decommissioning.

5 LOSS OF BEST AND MOST VERSATILE QUALITY

The Issues

5.1 RfR1 states that the harm caused by the loss of BMV does not outweigh the climate change benefits, contrary to policy.

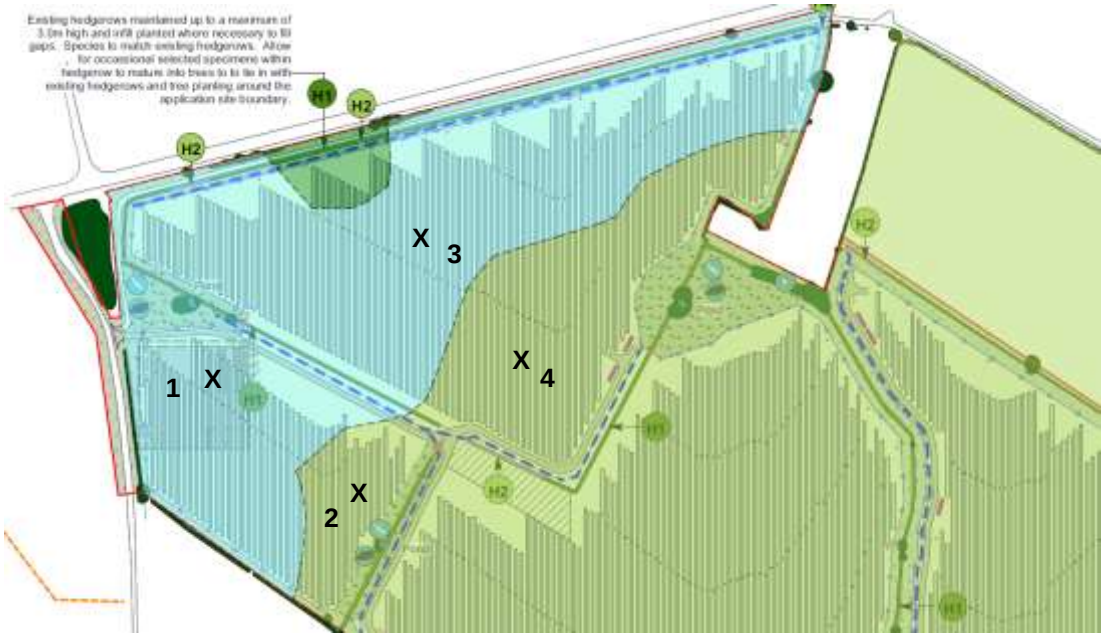
5.2 Therefore we need to consider whether BMV land is lost, and where the balance of benefits lies.

Area Involved

5.3 As set out in section 3, the area to which the reason for refusal is directed is an area of 7.3 ha, comprising 7.0 ha of Grade 2 and 0.3ha of Subgrade 3a land. I have visited the site and inspected these soils.

5.4 Repeating the previous insert, this is identified below, with my own soil pit locations shown 1-4.

Insert 15: The BMV Area



The Land and Soils

5.5 The BMV land is within two fields only, at the northern end of the Proposed Development.

5.6 Soil inspection points 1 and 2 fall within the same field, which is shown below, from the subgrade 3b near point 2 looking north west towards point 1.

Photo 1: Inspection Points 2 and 1

5.7 The soils in the Grade 2 and subgrade 3a area are described in the AMET Property ALC (January 2023) as of the Arrow soil association, and sandy loam or sandy clay loam to 30cm, over a sandy clay loam with a medium blocky structure turning to yellowish brown sand at below 60cm.

5.8 Soil pit 1, dug to 70cm, shows the sandy loam soils, and pit 3 shows sandy clay loam soils.

5.9 These soils are significantly different from the rest of the site, which comprises very dark greyish brown clay to depth.

5.10 The distinct differences between the two soils within the same field are clear from pits 1 and 2 below.

Inserts 16 & 17: Sandy Loam Soil at Pit 1

Inserts 18 & 19: Clay Soils at Pit 2

5.11 There is a similar distinct change in soil across the next field between pits 3 and 4, which is evident on the ground (but very difficult to show in a photograph).

Inserts 20 & 21: Pit 3, Sandy Clay Loam Soils

Insert 22 & 23: Pit 4, Clay Soils

5.12 This field is shown below, from the south corner looking north. The subgrade 3b land is in the foreground, and a colour change is evident in the photograph as the soils turn sandy.

Photo 2: Looking North

5.13 The larger, northern field is broadly triangular, which makes it slightly awkward to farm. The triangular shape arises from the field having been severed by the A52 Bottesford bypass.

Subgrade 3b Soils

5.14 The Council has not raised concerns about the use of subgrade 3b land. The subgrade 3b land is described in the Soil Resources Management Plan in **Appendix KCC3**.

5.15 The site is uniformly clayey soils, generally level arable land, as per the example photographs below (further details are in the SRMP, **Appendix KCC3**).

Photos 3 – 5: The Subgrade 3b Land

5.16 The clayey soils are evident in the example auger points below.

Photos 6 -8: Sample Auger Cores

Analysis and Commentary

5.17 The reason for refusal refers to "**the harm caused by the loss of best and most versatile land**".

5.18 As identified in the ALC and described above, the BMV land is limited to a modest area of 7.3 ha forming part of two fields at the northern end of the site.

Losses

5.19 The installation of the panels will not adversely affect the soils or the agricultural land quality. It will not cause losses of BMV.

5.20 The construction of the access track is a reversible development, and the land can be restored back to its original quality on decommissioning.

5.21 Even if that area of track was not restored however (for example if it was retained as a farm track), the loss would be no more than 0.1 ha of land, as calculated in section 4.

5.22 As set out in Natural England's consultation response, they are not required to be consulted for losses of less than 20 ha.

What Others Have Said on this Point

5.23 There is widespread recognition that the process of inserting solar panel legs and construction a solar farm does not cause significant loss or damage to agricultural land quality or soils. For example:

(i) in the appeal decision for the solar farm at Bramley, Hampshire [**CD 6.14**] (APP/H1705/W/22/3304561) the Inspector, noting that 53% of the site was of BMV, noted (para 58) "**The agricultural land would not be permanently or irreversibly**

lost, particularly as pasture grazing would occur between the solar panels. This would allow the land to recover from intensive use, and the soil condition and structure to improve. The use of the soils for grassland under solar panels should serve to improve soil health and biodiversity and the proposed LEMP, which could be secured by a condition attached to any grant of planning permission, includes measures to improve the biodiversity of the land under and around the panels".

(ii) in the NSIP decision at Longfield Solar Farm of 26th June 2023, (EN 010118) [**CD 6.19**] the Secretary of State agreed with his Examining Authority that the use of 150 ha of BMV, as part of a larger site, should be ascribed "**a small amount of negative weight in the planning balance**" (para 4.59). It was concluded that about 6 ha would be lost, and the rest would be lost temporarily. There would be no jeopardising of "**the UK's food security either now or in the future**" (para 4.57);

(iii) in the planning appeal decision on 27th June 2023 for land south of the Leeming Bar substation [**CD 6.20**], the Inspector considered whether or not land was Grade 2 or subgrade 3b. In her decision (APP/G2713/W/23/3315877) the inspector noted:

- agricultural use could continue during the operational phase (para 20);
- there would likely be improvements to soil health from being rested from intensive arable use (para 21);
- a change from arable to grassland use is not a matter subject to planning controls (para 22);
- there would not be temporary or permanent loss of BMV land (para 25);
- the proposals (in that case of 65 ha) would not be detrimental to the nation's food security (para 26);

(iv) in the decision on land west of Thaxted of 18th December 2023 [**CD 6.22**] (APP/C1570/W/23/3319421), which involved 55 ha of BMV, the Inspector was clear that the land would not be adversely affected except for areas of tracks and fixed infrastructure, and any woodland planting that is not removed at decommissioning. The Inspector noted, inter alia:

- whilst careful consideration needs to be given to BMV, none of the policy or guidance prohibits its use for large scale solar farms (paragraph 96);
- there is no evidence that taking 55 ha out of production, if sheep grazing did not take place, would affect food security and nothing in the Food Strategy changes the position towards the use of BMV for solar (paragraph 102);
- the agricultural land quality of the majority of the site would not be affected (paragraph 112);

(v) in the decision for a 47MW solar farm at Little Cheveney Farm, Marden (APP/U2235/W/23/3321094) [**CD N.6.23**], a site containing 47% BMV, the Inspector noted the preference to use poorer quality land (paragraph 46), and that the land would not be lost but would retain some grazing use (paragraph 50). He noted the benefits for soil and concluded that the temporary loss of some BMV was of limited weight (paragraph 51);

(vi) in the decision at Kemberton, Telford (APP/L3245/W/23/3329815) [**CD 6.24**] the Inspector noted that the piling "**would cause minimal disturbance to the soil and the quality of the land**" (which in that case was 29% Subgrade 3a) (paragraph 52). Overall he was satisfied that there would be no temporary or permanent loss of BMV (paragraph 54) and overall there was no conflict with the development plan or Framework (paragraph 60).

Conclusion on Loss of BMV

5.24 By any measure 0.1 ha of BMV land is not a significant loss. The "harm" alleged in the reason for refusal is negligible even if the track was not restored.

5.25 The land quality across the 7.2 ha of BMV land under and around the panels, is not lost.

5.26 "**There is an urgent need for new energy generating capacity to meet our needs**", and renewables are "**an essential element of the transition to net zero**", EN-3 notes (see paragraph 2.4 above).

5.27 The potential loss of less than 0.1 ha of BMV is negligible. When compared to the benefits of providing renewable energy described as "urgent" and "essential", the balance must lie with providing renewable energy.

5.28 No policies in the national planning policy, Local Plan or Neighbourhood Plan, prohibit the deployment of renewable energy across land of BMV quality.

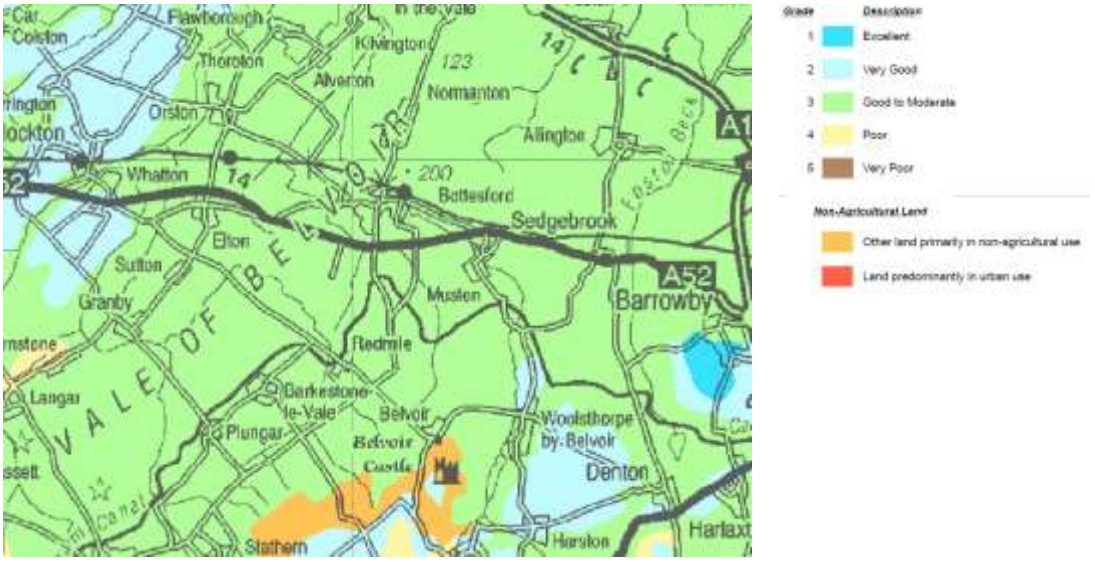
6 LAND QUALITY IN THE WIDER AREA

6.1 To determine land quality with accuracy, it is necessary to carry out a field survey. It is not possible to determine land quality without a survey.

6.2 The ALC system is described in Natural England's TIN 049 (2012), reproduced in **Appendix KCC4**. A description of the field survey methodology is set out in **Appendix KCC5**.

6.3 The provisional ALC maps produced by MAFF in the 1970's were prepared under an earlier ALC methodology, and should be used as an indication only. They show the area as mostly undifferentiated Grade 3.

Insert 16: Extract from the Provisional ALC



6.4 The land quality of Melton Borough, compared to England, based on these provisional maps, is compared below. This does not distinguish between the subgrades of 3a and 3b as the maps were produced prior to the methodology change to introduce subgrades.

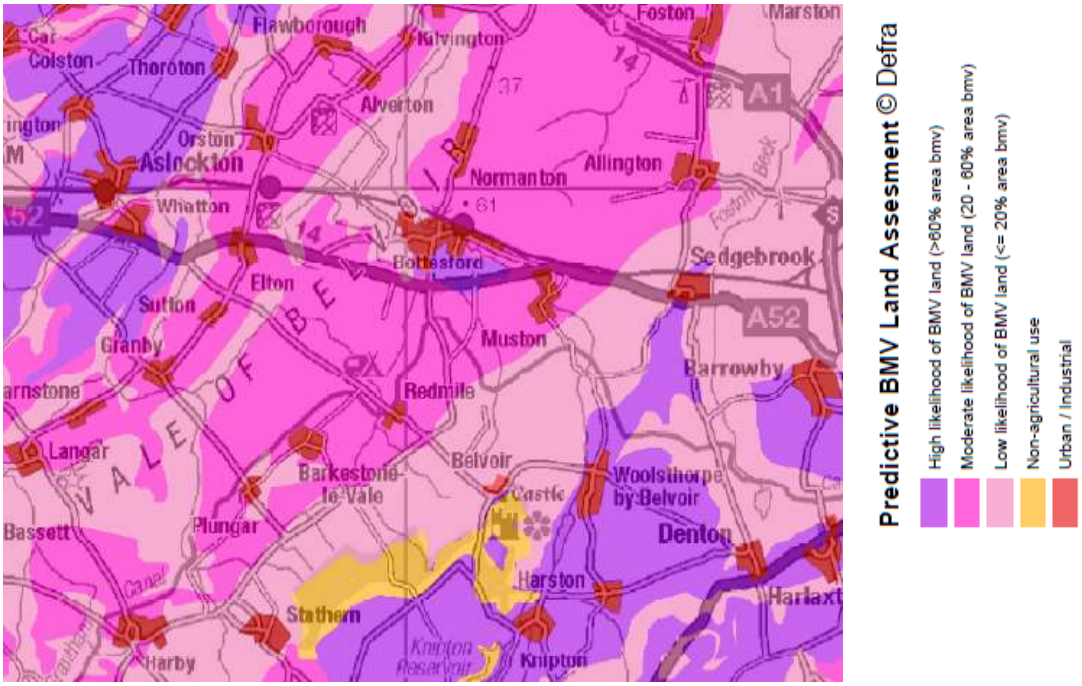
Table 1: England and Melton Provisional ALC

Grade	England (%)	Melton (%)
1 excellent	2.7	0.1
2 very good	14.2	11.3
3 good to moderate	48.2	79.8
4 poor	14.1	6.6
5 very poor	8.4	0.0
Non-agricultural	5.0	1.0
Urban	7.3	1.1
Total[1]	**99.9**	**99.9**

[1]The totals are an accurate reproduction of the published figures, but do not amount to 100%

6.5 In 2017 Natural England produced maps predicting the proportion of land that is of BMV in an area. The Site falls mostly in the 20-60% area BMV, as can be seen.

Insert 17: Extract from the BMV Likelihood Plan



6.6 The BMV at the northern edge of the Site is on the border of the area identified as falling in the >60% area BMV on the predictive BMV likelihood maps.

7 FOOD PRODUCTION CONSIDERATIONS

The Issues

7.1 The Council's reason for refusal (RfR1) states, inter alia, that "**the proposal seeks to remove Grade 2 and 3a 'Best and Most Versatile' land from food production which in the opinion of the local planning authority has not been adequately substantiated**".

7.2 The concern of the Council is therefore the effect on food production from the 7.3 ha of BMV within the site. The Council raises no concern about the effect on food production of the subgrade 3b land.

7.3 The effect on food production of the BMV land is assessed in the following order:

(i) relevant planning policy;

(ii) the effects on production, being the incremental difference between Grade 2 and subgrade 3b production;

(iii) continuing agricultural production.

Relevant Planning Policy

7.4 There is no policy that requires agricultural land to be farmed for food production. The definition of "agriculture" in section 336 of the Town and Country Planning Act 1990 is wide and includes the use of land as woodland, osier beds, grazing land etc.

7.5 Land can be farmed intensively for food, unintensively for food, for biomass, for grazing horses, rewilded, planted for trees, used for industrial crops, agri-environmental reasons or other non-food uses. There is no planning requirement for any consent for those uses.

7.6 The Government does not have any policy or financial incentive for using land for food production. There are many schemes that fund non-food uses. For example at 1st April 2023 some 161,000 ha of formerly arable agricultural land was being funded under the Countryside Stewardship Scheme for non-food environmental schemes, see **Appendix KCC6**. The UK Biomass Strategy issued in August 2023 notes that some 121,000 ha of land is used for biomass production and Government wants to see this increase (see **Appendix KCC6**).

7.7 There is no food production policy, and no food security crises. The Government Food Strategy (June 2022) does not seek to increase food production. The "Foreword" recognises near self-sufficiency in wheat, most meat, eggs and some vegetables, but not

in soft fruit although the trend is favourable. But the strategy does not seek to alter that in the main commodities. The Strategy states:

"**Overall, for the foods that we can produce in the UK, we produce around 75% of what we consume. That has been broadly stable for the past 20 years and in this food strategy we commit to keep it at broadly the same level in future**".

7.8 The Growth Plan 2022 (HM Treasury, September 2022) sets out in paragraph 3.48 that agricultural production growth has been weak for many years, and this needs to change. A review is underway of frameworks for regulation, innovation and investment, with plans which were then stated to be set out later in the autumn. In context, however, the whole of section 2 of The Growth Plan is about tackling energy prices, with a drive for development of home-grown renewable technologies (2.10 refers). Farming by contrast warrants one paragraph.

7.9 The most recent position statements balancing the use of agricultural land with energy production are EN-1 and EN-3 (which came into force in January 2024). These do not present a bar on the use of BMV land. The statements do not set out policy for food production or increasing food production. Instead they refer to policy to prevent loss of resources and provide efficient use of land.

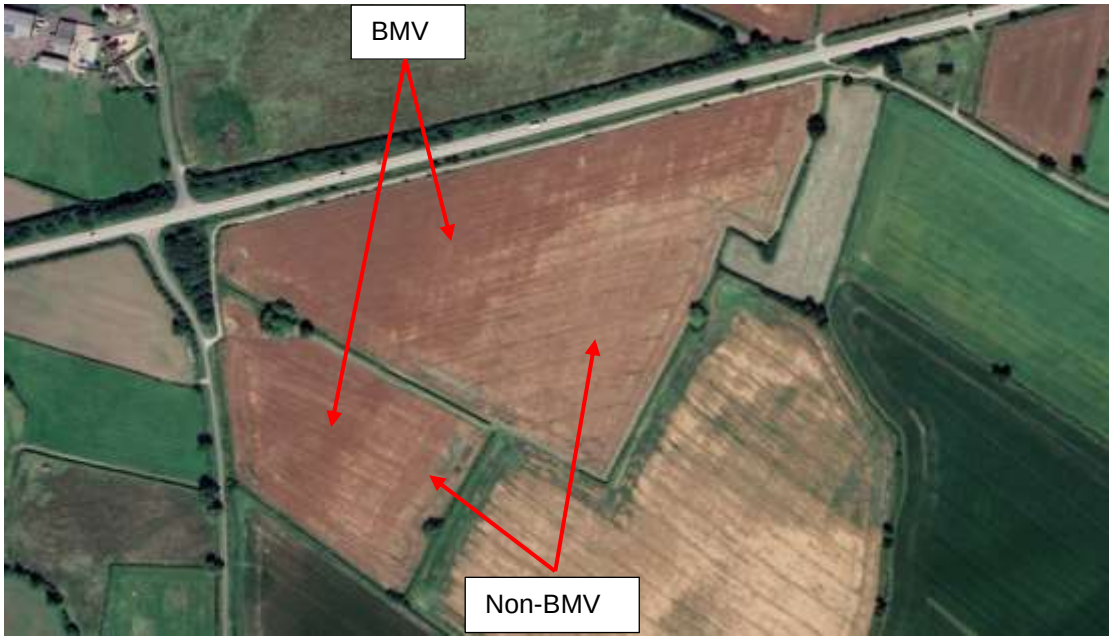
7.10 There is no need for farmland to be used to is full productive capacity, or for growing food. The position is made clearly by Government.

The Implications in Practice

7.11 The effect of requiring the Grade 2 land to remain in unrestricted agricultural use would be that some 7.3 ha of subgrade 3b or poorer elsewhere would need to be used for solar production instead. Therefore it is the incremental difference between the two grades which is the relevant measure, not the absolute production.

7.12 In practice it is the extra production from the area shown below (in a 2021 photograph where the difference of the crop maturity clearly shows the boundary between the land grades).

Insert 18: Aerial Photograph 2021



7.13 There is no research of which we are aware that records the difference in production between BMV land and non-BMV land. As a crude measure we show the difference between high and average production of winter wheat and oilseed rape.

Table 2. Assessment of Economic of Farmed Land

Item	Winter Wheat		Oilseed Rape	
	Average	High	Average	High
Yield (t/ha)	8.6t/ha	10.0t/ha	3.5t/ha	4.0t/ha
Output (£)	£1,813/ha	£2,086/ha	£1,523/ha	£1,740/ha
Gross Margin (£)	£1,116/ha	£1,389/ha	£944/ha	£1,161/ha
Uplift (£)	-	£273/ha	-	£217/ha

John Nix Pocketbook for Farm Management, September 2023

7.14 Therefore the difference between yields for wheat would be 1.4t/ha, and for oilseed rape 0.5t/ha.

7.15 On a four year crop rotation of 3 wheats followed by a break crop, the 7.3 ha of BMV would yield 8.6t more than using non-BMV land. If the highest yield crop, winter wheat, was grown continuously the difference would be 10.2t/year.

7.16 The UK produced just over 24 million tonnes of cereals in 2022, an increase of 8.5% on 2021. Of this 15.5 million tonnes was wheat. In addition the UK produced 1.4 million tonnes of oilseed rape. In 2023 cereal production was just under 22 million tonnes, reflecting a decrease in area planted and a fall in yields, due to poor weather[1]. Clearly the incremental

[1] Cereal and oilseed production in the United Kingdon 2023, Defra (21 December 2023)

production from the 7.3 ha of the site is inconsequential in terms of UK production. It is also inconsequential in terms of local production.

Continuing Food Production

7.17 Food production will not, of course, cease. The land under and around the panels will be available for grazing sheep, and depending upon the system farmed these may go direct to the food chain (eg fattening of lambs) or indirectly (eg rearing-on lambs, overwintering ewes etc).

What Others Have Said on This Point

7.18 There are numerous appeal decisions which have examined this issue in the last year, but perhaps the clearest is the decision dated 27th June for land at Leeming Bar, Northallerton, reproduced in **CD 6.20**.

7.19 On the subject of food production the Inspector at paragraph 22, reported as follows:

"**I note the concerns that the productivity and versatility of the land would be reduced. Nevertheless, the specific way agricultural land is used is not a matter that is subject to planning controls. As such, there would be nothing in planning terms to prevent the farmers using the fields that form the appeal site for the grazing of sheep at present or even leaving them fallow. Given this, the fact that the proposal would limit the ability to carry out any arable farming does not, in my opinion, mean that it results in the loss of agricultural land when it can still be used for other agricultural uses. Furthermore, current government schemes actually encourage farmers to take land out of production and put it to grass, meadows, or trees for carbon capture**".

7.20 In the Nationally Significant Infrastructure Project (NSIP) for a solar farm at Longfield (EN010118) (**CD 6.19**), determined the day before, the examiner considered food issues. The Secretary of State agreed, noting in paragraph 4.57 as follows:

"**The ExA notes that the SoCG between the Applicant and Natural England ("NE") in which NE agrees the Proposed Development is unlikely to lead to a significant permanent loss of BMV agricultural land as a resource for future generations [ER 5.7.38]. The ExA notes the Applicant estimated the temporary loss of BMV agricultural land would represent 0.02% of all BMV agricultural land in East England, with the permanent loss of 6 ha representing less than 0.001% [ER 5.7.45]. The ExA notes that the majority of land within the Proposed Development is grade 3b and therefore does not fall within the definition of BMV agricultural land [ER 5.6.46]. Further, the ExA notes that Powering Up Britain, published on 30 March**

2023, makes clear that the Government will not be making changes to these classifications in ways that might constrain solar development [ER 5.7.46]. Furthermore, the ExA considers no robust evidence was submitted which would indicate that the loss of 150ha of BMV agricultural land over the 40-year duration of the Proposed Development would jeopardise the UK's food security either now or in the future [ER 5.7.48]".

7.20 The Secretary of State agreed and ascribed a small amount of negative weight to the agricultural land matters in the balance.

Conclusion on Food Issues

7.21 The implications for food production from removing the BMV from the proposed scheme, which is the only area referenced in the RfR1, is at most 10 tonnes of cereals per annum. As a country we produced 22 million tonnes of cereals in 2023, and we have no food production policies or food security concerns. The Council's reason for refusal is without policy basis and without any real sense of scale.

7.22 The change from arable to grassland agricultural uses is not a planning matter, and there are no planning policies harmed by this change.

8 OTHER BENEFITS

8.1 The site is currently in intensive arable production, as shown in the photographs earlier, and in the SRMP in **Appendix KCC3**.

8.2 The site will be sown to grassland for the duration of the operational phase.

Benefits to Soils

8.3 It is widely recognised that soils will benefit from being put to long-term grassland. These benefits will apply to the whole site, not just the BMV area.

8.4 The land will be in grassland, and it is expected to be managed by grazing of sheep. This is common practice, and entirely feasible, as shown below. Managed or grazed grassland is shown in the following photographs.

Photos 9 - 11: Managed Grassland

8.5 What we know about soils in the UK is that continual arable production, as is practised on part of the site, is generally not good for soils, and that conversion to grassland is generally good for soils and the biological functions they support. Conversion of arable land to grassland receives funding under the Countryside Stewardship Scheme which, for example, pays farmers £326 per hectare for managed conversion (Tier level SW7, 2023/24 rates).

8.6 Some other known harms and benefits are summarised below:

(i) soil is an important natural capital resource, but our understanding of soils is hindered by a lack of data. In the Environment Agency's "Summary of the State of the Environment: Soil" report of January 2023[2], they note that UK soils currently store about 10 billion tonnes of carbon, equal to 80 years of annual greenhouse gas emissions.

(ii) the report notes that soil biodiversity and the many biological processes and soil functions that it supports "**are thought to be under threat**". The statistics are:

- almost 4 million hectares of soil are at risk of compaction;
- over 2 million hectares of soil are at risk of erosion;
- intensive agriculture has caused arable soils to lose about 40 to 60% of their organic carbon.

(iii) the state of soil biology is poorly researched, but the report identifies that intensive agriculture reduces soil biodiversity. A recent study identified 42% of fields may be overworked, as evidenced by an absence or rarity of earthworms. It is noted that "**tillage had a negative impact on earthworm populations, and organic matter management did not mitigate tillage impacts**" (page 11).

(iv) the UK Food Security Report 2021 also notes that, whilst grain is generally the most efficient form of production in terms of calories per hectare, it has a significant environmental impact "**due to the lack of biodiversity in conventional grain fields, damage to soil through ploughing, environmental harms caused by fertilisers and pesticides, and the oil use embedded in fertilisers and field operations**".

(v) the Environment Agency "State of the Environment: soil" report notes that bare soils, reduced hedgerows and increased field sizes mean that, in England and Wales, an estimated 2.9 million tonnes of topsoil is lost to erosion every year. Erosion regularly exceeds the rate of formation of new soils (which is at about 1 tonne per hectare per year) on many soils, with 40% of arable soils at risk, especially lighter soils on hillslopes and peats in upland areas. "**Significant decreases in erosion risk occurred when**

[2] Research and analysis: Summary of the state of the environment: soils, Environment Agency (26 January 2023)

fields changed from winter cereal use to permanent grassland", the EA reported. Management practices in arable land can make a big difference, but the constant vegetation cover of grassland reduces erosion significantly.

(vi) organic matter in soil acts like a sponge and can hold up to 20 times its weight in water. Most arable soils have lost 40 to 60% of their organic carbon[3]. The British Society of Soil Science record (Science Note: Soil Carbon, BSSS (2021)) the declining state of soil carbon (soil organic carbon and soil inorganic carbon), and note that the greatest and most rapid soil carbon gains can be achieved through land use change, eg converting arable land to grassland. Sustainable soil management practices are needed for all soils.

(vii) the role of soil organic carbon in soils is complex, as described in the British Society of Soil Science Note "Soil Carbon" (2021). As described under the heading "Soil Carbon Functions" on page 4, "**a soil with a greater SOC content has a more stable structure, is less prone to runoff and erosion, has greater water infiltration and retention, increased biological activity and improved nutrient supply compared to the same soils with a smaller SOC content. Even small increases in SOC can markedly influence and improve these properties**".

(viii) it is noted in that same report at the top of page 5 that "**Significant long-term land use change (e.g. conversion of arable land to grassland or woodland) has by far the biggest impact on SOC, but is unrealistic on a large scale because of the continued need to meet food security challenges**".

(ix) biodiversity across farms is also in a poor state. The 2019 State of Nature Report (The State of Nature 2019, The State of Nature Partnership (2019)) recorded increases and decreases in different species, but overall a decline in the abundance and distribution of the UK's species since 1970, continuing a trend started hundreds of years earlier. The House of Commons Environmental Audit Committee (House of Commons Environmental Audit Committee: Biodiversity in the UK, bloom or bust?, First report of session 2021-22 (23 June 2021)) recorded this in stark terms. The Summary started as follows: "**the world is witnessing a colossal decline in global biodiversity**".

Conclusions

8.7 There are potential benefits for soils within part of the Site that is in arable use at present.

[3] EA, ibid, page 8.

9 CONCLUSIONS

9.1 The Council has refused the application contrary to officer's recommendations, setting out two key concerns in RfR1:

- the loss of BMV land is not outweighed by the benefits;
- the removal of food production from BMV land has not been adequately substantiated.

9.2 This Statement accompanies an Appeal against the refusal of planning consent.

9.3 This report also attaches a Soil Resource Management Plan.

Loss of BMV

9.4 There will be no permanent loss of BMV land. There will be a temporary loss for a section of access track, but the area involved is less than 0.1 ha.

9.5 The majority of the site is poorer quality land, being clayey soils in subgrade 3b.

9.6 At the northern end, forming part of two fields, is a band of sandy loam and sandy clay loam soils distinctly different to the rest of the fields within which the band runs, and the rest of the site.

9.7 Setting aside the practical difficulties of farming two halves of a field differently, were the Grade 2 and Subgrade 3a to be cropped differently to the rest of the field.

- the BMV land will not be lost. The land quality, except for the 0.1 ha affected by the track, will remain Grade 2 land;
- the track could be returned to BMV quality on decommissioning, so there would then be no loss of BMV;
- even if the track was retained the loss would be <0.1 ha, which is negligible.

Loss of Food Production

9.8 The reason for refusal refers to the unjustified loss of food production from the BMV land involved.

9.9 There is no policy that requires agricultural land to be used for food production. There are no Government incentives that encourage land to be used for food production. Government incentives and initiatives encourage non-food agri-environmental land uses, or the production of biomass for renewable energy, or tree planting.

9.10 Nor is there a food crisis or food security concern. Government has been very clear that it considers our food supplies to be secure.

9.11 The production from the BMV land needs to be viewed in context, too. The incremental difference between production from the Grade 2 areas to poorer quality land, crudely estimated, is 10t per year of cereals for the 7.3 ha involved. That, in the context of UK production in 2023 of about 22 million tonnes, is insignificant.

Conclusions

9.12 The BMV land will not be lost. The food issues are insignificant. There is no policy bar to using BMV land for solar, and there is no food production policy.

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