

**GROUND-MOUNTED SOLAR PANELS,
BATTERY STORAGE, PLANT
AND INFRASTRUCTURE,
TYDD ST GILES/SUTTON ST EDMUND,
LINCOLNSHIRE**

**AGRICULTURAL EVIDENCE
ON BEHALF OF
THE APPELLANT**

BY

TONY KERNON BSc(Hons), MRICS, FBIAC

**Fenland District Council: F/YR24/0457/F
South Holland District Council: H19-0329-24**

October 2025





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1 INTRODUCTION TO THE WITNESS

The Witness

- 1.1 This evidence has been prepared by Tony Kernon. I am a Chartered Surveyor and a Fellow of the British Institute of Agricultural Consultants. I have specialised in assessing the effects of development proposals on agricultural land for the last 38 years, and act nationwide for local planning authorities and applicants alike across England and Wales.
- 1.2 Over the last fifteen years I have been involved with a large number of solar proposals, at application and appeal stage, and including numerous Nationally Significant Infrastructure Projects. I have visited working solar farms and examined their soils and management.
- 1.3 As part of preparing this evidence I have reviewed the relevant application material, visited the Site and inspected the land and soils.
- 1.4 My Curriculum Vitae is at **Appendix TK1**. As a Chartered Surveyor giving evidence, I am bound by the RICS Practice Statement "Surveyors Acting as Expert Witnesses", 4th Edition (February 2023). A declaration is provided below.
- 1.5 In accordance with the requirements of the Royal Institution of Chartered Surveyors Practice Statement, "Surveyors acting as expert witnesses" (4th edition, amended 2023):
- (i) I confirm that my report has drawn attention to all material facts which are relevant and have affected my professional opinion.
 - (ii) I confirm that I understand and have complied with my duty to this Appeal which as an expert witness overrides any duty to those instructing or paying me, that I have understood this duty and complied with it in giving my evidence impartially and objectively, and that I will continue to comply with that duty as required.
 - (iii) I confirm that I am not instructed under any conditional or other success-based fee arrangement.
 - (iv) I confirm that I have no conflicts of interest.
 - (v) I confirm that my report complies with the requirements of the Royal Institution of Chartered Surveyors (RICS), as set down in "*Surveyors acting as expert witnesses*": RICS practice statement (2023).

Signed:



(Tony Kernon)

Dated: 10th October 2025

2 INTRODUCTION TO THE EVIDENCE

General Approach

- 2.1 This is a cross-boundary appeal, with two different reasons for refusal. It is assumed at the time of writing that the appeals will be heard together, and this evidence is written in that expectation. Accordingly matters common to both decisions are addressed, with subsequent sections addressing the specifics of each reason for refusal.

The Reasons for Refusal

- 2.2 South Holland District Council (SHDC) refused the application on 9th May 2025. This was a delegated decision and contains a single reason for refusal, albeit in two paragraphs.
- 2.3 The first paragraph sets out the principal issue. This states:
“The application site is made up entirely of Best and Most Versatile Agricultural Land. Notwithstanding the climate change benefits which are given great weight, the loss of such a large area of BMV land, would be a threat to food security, and so when considering the Ministerial Statement of May 15th 2024, it would also result in a threat to national security”.
- 2.4 The decision goes on to state that “**moreover**” (ie besides, as a further matter) the use of Best and Most Versatile Agricultural Land (BMVAL) has not been shown to be necessary and that land of poorer quality does not exist.
- 2.5 Fenland District Council (FDC) refused the application in their administrative area on 30th May. This was a Committee decision and was contrary to the officer recommendation to permit.
- 2.6 The Reason for Refusal No 1 is relevant to this evidence. It states:
“The proposed development would result in a significant loss of Best and Most Versatile agricultural land and, therefore, would be a threat to food security, contrary to policy LP14 of the Fenland Local Plan 2014 and paragraphs 125(b) and 187(b) of the National Planning Policy Framework. Whilst the benefits of renewable energy and the contribution that the proposed development would make towards addressing climate change are noted, it is not considered that these outweigh the harm associated with the conflict with the Council’s adopted policies and other material considerations”.

Main Issues Arising

- 2.7 The principal issues arising from the two reasons for refusal are:
- (i) whether the proposed development involves the loss of BMVAL;
 - (ii) whether, if the land is not “lost” there is a loss of use or diminution of use for the duration of the operational phase of the proposed development;
 - (iii) whether any diminution of agricultural productivity represents a threat to food security locally or nationally;
 - (iv) whether this represents a threat to national security;
 - (v) whether the proposed development results in adverse effects that outweigh the benefits that renewable energy generation brings in terms of energy security and helping to tackle climate change;
 - (vi) whether overall the proposed development accords with the development plan.
- 2.8 In the SHDC refusal a secondary issue is raised: whether poorer quality land exists.

This Evidence

- 2.9 This evidence concludes that the proposed development will not result in the loss of BMVAL. There will be a reduction in flexibility of use for 42 years, but there is no policy or initiative to require or encourage agricultural land to be actively farmed, or intensively farmed. There is no food production or food security concern or crisis, and the proposed development will make a negligible impact on food production, and no discernible impact on food security. Policy requires only that the benefits of BMVAL be recognised, whereas it requires that significant weight be given to the benefits of renewable energy. In the planning balance the weight lies firmly in favour of allowing the proposed development in respect of agricultural land considerations.
- 2.10 Accordingly this evidence is structured as follows:
- (i) **section 3** sets out planning policy, guidance, Ministerial Statements and other documents of relevance;
 - (ii) **section 4** describes the site, the land quality, the soils and the current farming use;
 - (iii) **section 5** describes the proposals, their construction, their effects on agricultural land and land use, and the effects (and benefits) on soils;
 - (iv) **section 6** considers the allegation that BMVAL will be “lost”;
 - (v) **section 7** considers the practical implications on land use, agricultural use and food production;
 - (vi) **section 8** considers the food security of the country, and the local area, and considers whether or not this is harmed;
 - (viii) **section 9** considers whether poorer quality land exists;

(ix) the evidence ends with a summary for each decision in **sections 10** (SHDC) and **11** (FDC).

2.11 This evidence refers to an outline Soil Management Plan (oSMP), which is being submitted with the appeal documents. The oSMP sets out the key principles. It is anticipated that a Soil Management Plan will be required by condition.

3 PLANNING POLICY AND GUIDANCE OF RELEVANCE

3.1 Planning policy and guidance is summarised in this chapter. This chapter:

- (i) describes the ALC system;
- (ii) considers local planning policy;
- (iii) considers national planning policy;
- (iv) considers National Policy Statements; and
- (v) considers related guidance

The ALC System

3.2 Agricultural land is measured under a system of Agricultural Land Classification (ALC). This grades land based on the long-term physical limitations of land for agricultural use, including climate (temperature, rainfall, aspect, exposure and frost risk), site (gradient, micro-relief and flood risk) and soil (texture, structure, depth and stoniness) criteria, and the interactions between these factors determining soil wetness, droughtiness and utility. The system is described in Natural England's Technical Information Note TIN049 (2012) (**Appendix TK2**).

3.3 Land is divided into five grades, 1 to 5. Grade 3 is divided into two subgrades. Land falling into ALC Grades 1, 2 and Subgrade 3a is the “**best and most versatile**” (BMV) (as defined in the National Planning Policy Framework (2024), Annex 2). Natural England estimate that 42% of agricultural land in England is of BMV quality (see TIN049 in **Appendix TK2**).

Local Plan

3.4 SHDC policy is set out in the South East Lincolnshire Local Plan (2011 – 2036) (adopted March 2019) Policy 31B covers “Renewable Energy”. This is a positively worded policy. It states that renewable energy facilities “**will be permitted provided, individually or cumulatively, there would be no significant harm to ... [inter alia] 4. agricultural land take**”.

3.5 FDC policy is set out in the Fenland Local Plan 2014 (adopted May 2014). Policy LP14 Part A starts by recording the “**urgent need to combat the causes of, and adaptation to, climate change**”. Part B sets out that renewable energy proposals will be supported. Proposals will be assessed “**both individually and cumulatively**” taking account of, inter alia, “**high quality agricultural land**”.

NPPF

- 3.6 The National Planning Policy Framework (NPPF) (December 2024)¹ sets out at paragraph 187 (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.
- 3.7 Paragraph 187 and the related footnote 65 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 and Framework. Footnote 65 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**”.
- 3.8 Paragraph 168 makes clear that applicants should not be required to demonstrate the overall need for renewable or low-carbon energy, and that significant weight should be given to the benefits.

National Policy Statements

- 3.9 The **Overarching National Policy Statement for Energy (EN-1)** (January 2024) may be a material consideration for all applications.
- 3.10 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 the 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)**”.
- 3.11 The **National Policy Statement for Renewable Energy Infrastructure (EN-3)** (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 the specific guidance for different technologies, with section 2.10 covering “Solar Photovoltaic Generation”.

¹ As amended in February 2025.

- 3.12 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.
- 3.13 Other guidance in EN-3 includes:
- 2.10.68 recognises that solar panels can be decommissioned easily;
 - 2.10.89 recognises the potential solar farms have to increase biodiversity;
 - 2.10.127 advises on minimising the effect on soil resources.
- 3.14 The Government has announced consultation on targeted amendments to EN-1 and EN-3 (April 2025), but these do not materially alter the policy quoted above.

Guidance

- 3.15 There is no definition of what is “significant” development in the context of footnote 65 of the NPPF (which, as noted, is set in the context of plan making). The threshold for consultation with Natural England is where there will be a loss 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).
- 3.16 There is no definition of what is meant by “loss” in the DMP Order. The Institute of Sustainability and Environmental Professionals (ISEP, formerly IEMA) Guide “A New Perspective on Land and Soil in Environmental Impact Assessment” (February 2022) 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). The ISEP Guide notes that this can include **“effects from temporary developments”**, which is defined as follows: **“temporary developments can result in a permanent impact if resulting disturbance or land use change causes permanent damage to soils”**.
- 3.17 The Planning Practice Guidance suite from 2015, in the section on “Renewable and Low-carbon energy”, advises at 5-013-20150327 that factors a local planning authority will need to consider will 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. It is noted that this guidance is now

ten years old. As set out in page 56 of the Clean Power 2030 Action Plan², this guidance will be updated in 2025 to provide clarity and updates.

WMS

- 3.18 The Secretary of State for Energy Security and Net Zero's Written Ministerial Statement (WMS) of May 2024 "Solar and Protecting our Food Security and Best and Most Versatile (BMV) Land"³ notes in the first paragraph that food security is an essential part of national security and confirms the commitment to maintain the current level of food we produce. The second paragraph sets out concerns about energy security and prices and summarises the Government's position of racing ahead with the deployment of renewable energy, especially solar.
- 3.19 The WMS explains that **"even in the most ambitious scenarios [solar] would still occupy less than 1% of agricultural land"**. The Minister had clearly considered the potential impact of delivering the Government's objectives for renewable energy by solar. The second paragraph of the WMS confirms that the Government is racing ahead with deployment of renewable energy.
- 3.20 The WMS re-states the Government's position in respect of the use of BMV land. It does not amend the national policy, nor does it alter the weight to be given to the use of BMV land. Nor does it set out a food-producing policy.

Government Statement

- 3.21 On 18th July 2024 the Secretary of State made a Statement in the House of Commons under the title of "Clean Energy Superpower Mission". This reported, inter alia, that **"credible external estimates suggest that ground-mounted solar used just 0.1% of our land in 2022. The biggest threat to nature and food security and to our rural communities is not solar panels or onshore wind: it is the climate crisis, which threatens our best farmland, food production and the livelihoods of farmers"**.

Food Security Report 2024

- 3.22 On 11th December 2024 the Government published the UK Food Security Report 2024. This analyses land use change. From the paragraph at the top of the third page the analysis is as follows:
- "Looking ahead, based on current government policy framework for incentivising types of land use, it is expected that there will be increases in land use change from agricultural land to other uses. These uses include woodlands, grasslands,**

² Issued by UK Government in December 2024.

³ Issued 15th May 2024 by Claire Coutinho under the last administration.

and restored peatland, as well as some being devoted to economic infrastructure like energy and housing. The impact this will have on food production will be affected by the kind of land being taken out of production. For instance, the impact is negligible if it is unproductive land which is taken. It is plausible that with continued growth in output and conducive market conditions, food production levels could be maintained or moderately increased alongside the land use change required to meet our Net Zero and Environment Act targets and commitments. However, analysis projecting decades into the future involves significant uncertainties. The government is due to publish a land use framework to guide land managers on the balance of opportunities and risks”.

Solar Roadmap

- 3.23 The Department for Energy Security and Net Zero published the Solar Roadmap in June 2025. This re-states the position in respect of BMV land on page 20, and notes a number of benefits. It is noted that **“the biggest risk to food security and the natural environment is the climate and nature crisis”**. Annexed to the Solar Roadmap is a document “Solar Misconceptions”. Against the heading “Solar is a threat to food security”, it is noted that **“the biggest threat to food security is crop failure due to climate change and solar farms are helping to tackle this directly”**. The response also states:

“Recent UK Government analysis shows that even under the most ambitious deployment scenarios set out in the Solar Roadmap, and in the unlikely case that all new capacity coming forward is ground mount, it would only occupy up to around 0.6% of UK Utilised Agricultural Land by 2030 (less than that used by golf courses in Great Britain).

Solar farms are a temporary and completely reversible land use with restoration of land at the end of the solar farm’s life usually guaranteed by a planning condition”.

4 THE SITE, THE LAND, THE SOILS AND THE USE

The Appeal Site

- 4.1 The Appeal Site is arable farmland. From the air it looks similar to most of the land in the area. When crop cover is light it is possible to see soil patterns reflecting the course of old watercourses and wet areas before the whole area was drained for agricultural use.
- 4.2 The Site is outlined on the following Google Earth image. The Lady Nunn's Old Eau watercourse runs through the centre of the Site and represents the boundary between the two local planning authorities.

Insert 1: Google Earth with the Site Boundary Marked Approximately

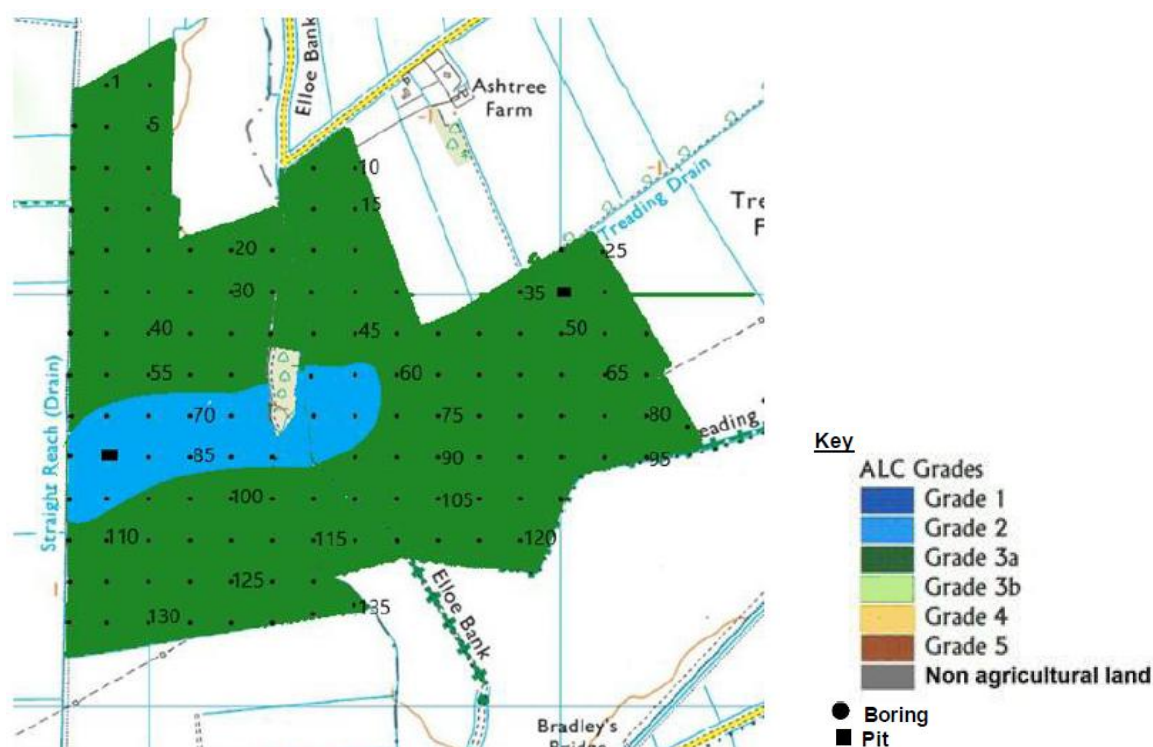


Agricultural Land Quality

- 4.3 An ALC survey was carried out by Bateman Rural Associates Ltd in June 2022. The ALC report was submitted with the applications and is not in dispute. The ALC survey identified the soils as generally heavy silty clay or medium silty clay, with mottling (indicating winter waterlogging) from 25cm depth in most cases. There was a band of lighter loamy soils in the west.

4.4 The ALC map is reproduced below.

Insert 2: ALC Results



4.5 The results for the Site are as follows.

Table 1: ALC Results

ALC Grade	Area (ha)	Proportion (%)
2 Very good quality	15	11
3a Good quality	117	89
Total	132	100

Soils

4.6 The soils are described in the ALC report as medium and heavy silty clay loam, medium silty clay loam, or silty clay. The ALC field notes record clay topsoil in places. The topsoil depth is mostly 25cm, but 30cm in places.

4.7 I dug two small pits in August 2025 to illustrate the soils, but as the soil was so dry the soil texture was hard to identify. Grade 2 soil is shown in Photos 1 – 4 below.

Photos 1 – 4: Grade 2 Soils



- 4.8 Subgrade 3a soil is illustrated below.

Photos 5 and 6: Subgrade 3a Soil



Land Use

- 4.9 The land is all in arable cropping. It is shown in photographs from the following locations.

Insert 3: Location of Viewpoints



Viewpoint 1



Viewpoint 2



Viewpoint 3



Viewpoint 4



Viewpoint 5



Viewpoint 6



- 4.10 The land is farmed as part of Ashtree Farm, Sutton St Edmund. This farm extends in total to approximately 350 hectares. This includes:
- 40 ha at Lutingtongate;
 - 172 ha near Thorney;
 - 6 ha in Sutton St Edmund;
 - and 130 ha at the Appeal Site.
- 4.11 The land is farmed by contractors, with different contractors running the Thorney unit. There are farm buildings at Ashtree Farm, including grain storage, but this is insufficient for all the crop.
- 4.12 The cropping of the land is determined each year depending upon a number of factors. Usually the land is used for growing autumn sown wheat and barley, with break crops of oilseed rape or winter beans. Blackgrass is a problem on the land, and sowing of crops is usually delayed to allow for the land to be sprayed-off pre-sowing, but that can result in a move to spring sown crops if rains arrive.
- 4.13 The landowner can recall that, when he was a child, this land was all down to grassland and was grazed by cattle. The heavy and wet nature of the soils prevented mechanical

ploughing with small tractors of the time. Arable cropping has only been possible since the considerable increase in size and horsepower of modern tractors, such as the example below (taken locally in August 2025 but not on the Site).

Photo 7: Typical Heavy-land Farm Machinery



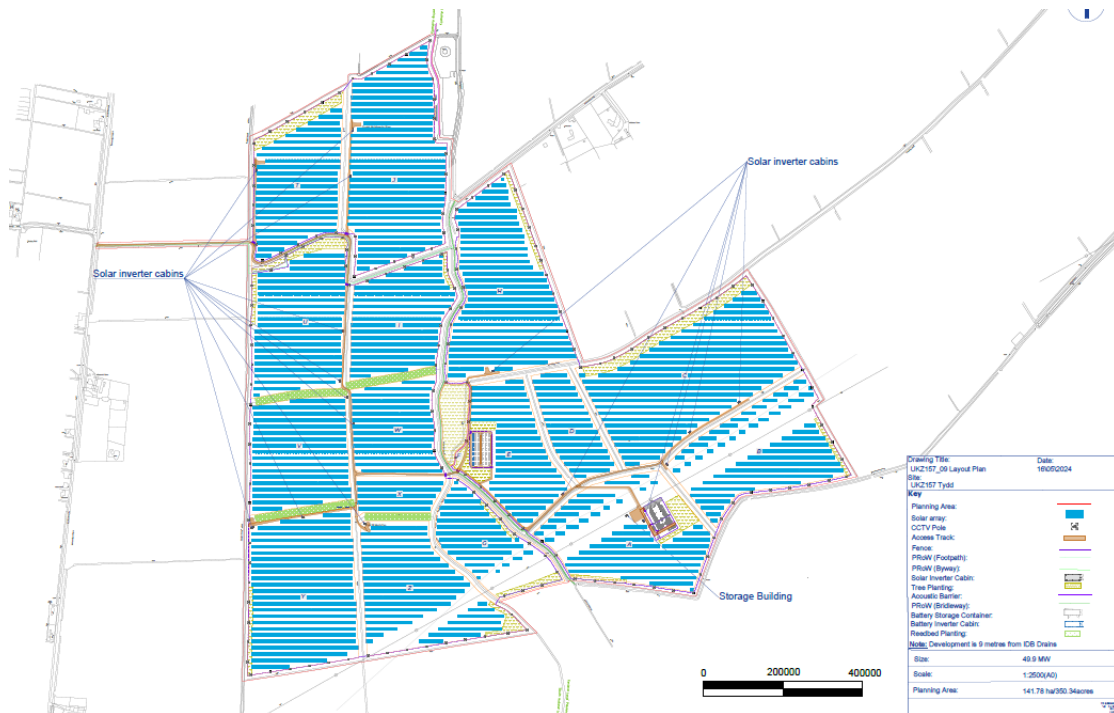
- 4.14 Parts of some fields have the benefit of installed under-field drainage. The dykes are all controlled by the North Level Internal Drainage Board, and The Lady Nun main drain runs north through the Site.

5 THE PROPOSALS

The Proposed Layout

- 5.1 The proposed layout is shown on the Layout Plan, an extract from which is reproduced below.

Insert 4: The Proposed Layout



- 5.2 The following sections describe the installation process and the fixed equipment. This is described in the context of both reasons for refusal which refer to the “loss” of land of BMV quality.
- 5.3 The description covers:
- (i) solar PV arrays and related cabling works;
 - (ii) interconnecting tracks;
 - (iii) fixed equipment such as inverters and container boxes;
 - (iv) the BESS proposals;
 - (v) the substation.

Solar PV Arrays

- 5.4 The installation process of solar PV arrays has a very limited effect on soils and land quality. The installation process starts by marking out where solar PV array framework legs need to be placed. A team then arrives to knock the legs in. This involves small

machinery. The following photograph shows a team installing legs in grassland and the small size of the machinery (relative to say a typical tractor) is evident.

Photo 8: Machinery Installing Solar PV Framework Legs (Purton, Wiltshire, 2015)



- 5.5 The following photograph was taken in winter shortly after legs were inserted on an arable stubble in winter, and the lack of disturbance to the soil is evident.

Photo 9: Photograph Following Installation of Legs (Retford, Notts, 2023)



- 5.6 Once the legs have been installed the framework is brought out (usually by tractor and trailer) and assembled by hand, then the solar panels are brought out and bolted onto the framework. The machinery used is no larger than typical farm machinery.
- 5.7 There is a need for trenching, but as shown below this involves a narrow trench and the topsoil and subsoil are removed, kept separated, and returned in reverse order and settles back rapidly, using a generally small digger. Further information is set out in section 10 of the oSMP.

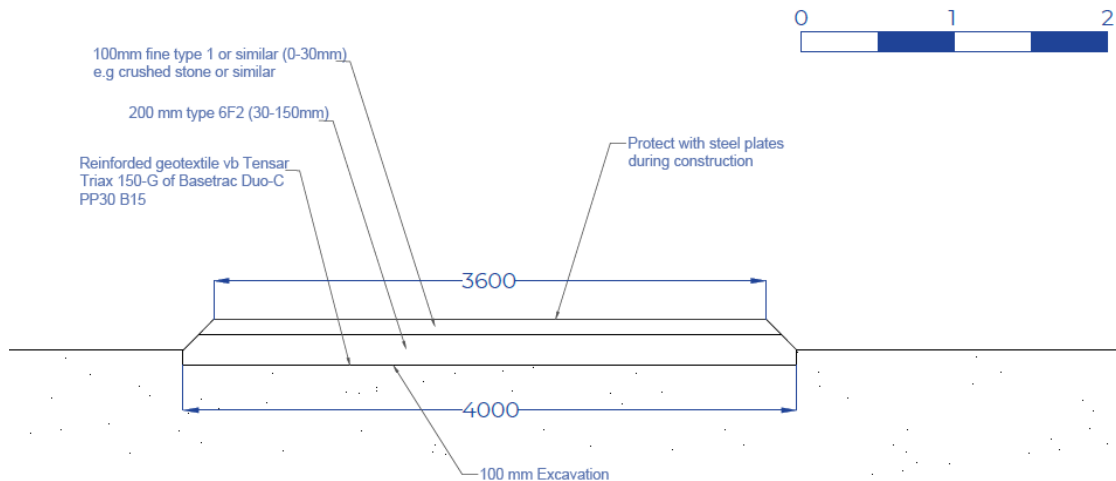
Photo 10: On-site Trenching



Inter-connecting Tracks

- 5.8 Tracks are required for access around the Site. The construction of these involves a shallow-depth soil strip of circa 100mm, the placing of a matting layer, and then importation of the track surface. The small volume of topsoil is left adjacent to the track so that it can be used on restoration. A cross-section of the proposed track is shown below. Further information is set out in section 6 of the oSMP.

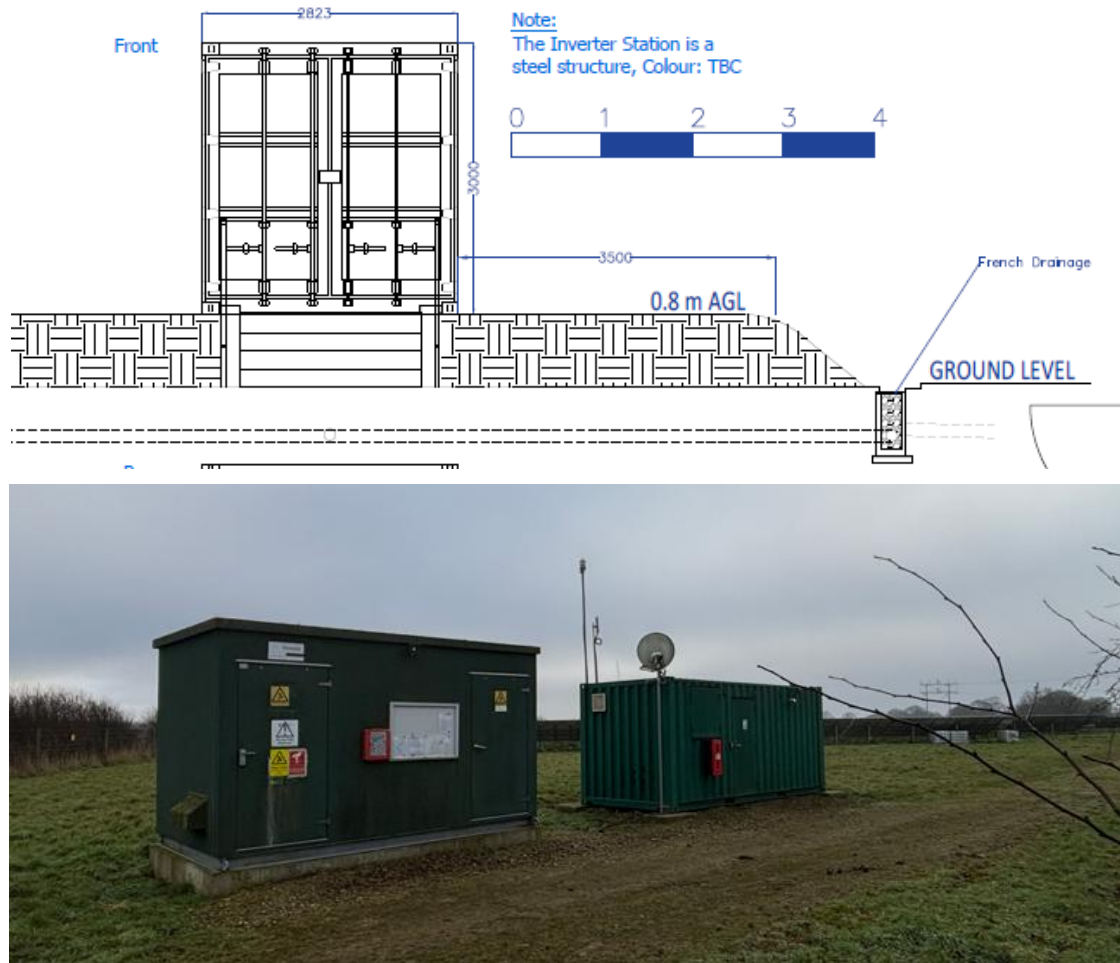
Insert 5: Cross-section of Track



Small Fixed Equipment

- 5.9 The inverter stations (and similar fixed equipment) need to stand on an area of hardstanding or base pads, with some hardstanding at the front for staff use. An extract from the plan, plus a photograph of a typical fixed equipment structure are shown below. The units will be placed on raised ground, using imported material which will be placed onto an impermeable matting.

Insert 6 and Photo 11: Solar Inverter Cabin (Photo – Malton, Yorks, 2025)

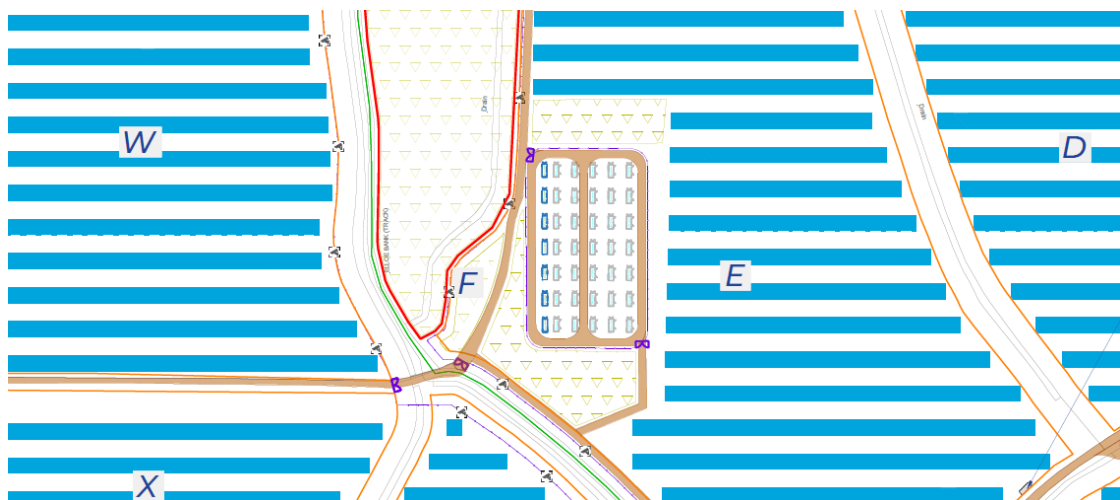


5.10 Further information is set out in section 7 of the oSMP.

BESS

5.11 A Battery Energy Storage System is proposed in the centre of the site, as shown on the plans. An extract is shown below.

Insert 7: Proposals for the BESS



- 5.12 This area is shown in the photograph below. It is Grade 2 but is adjacent to a small plantation and is currently not cropped being in an agri-environmental cover crop.

Photo 12: The Proposed BESS Area, Looking North

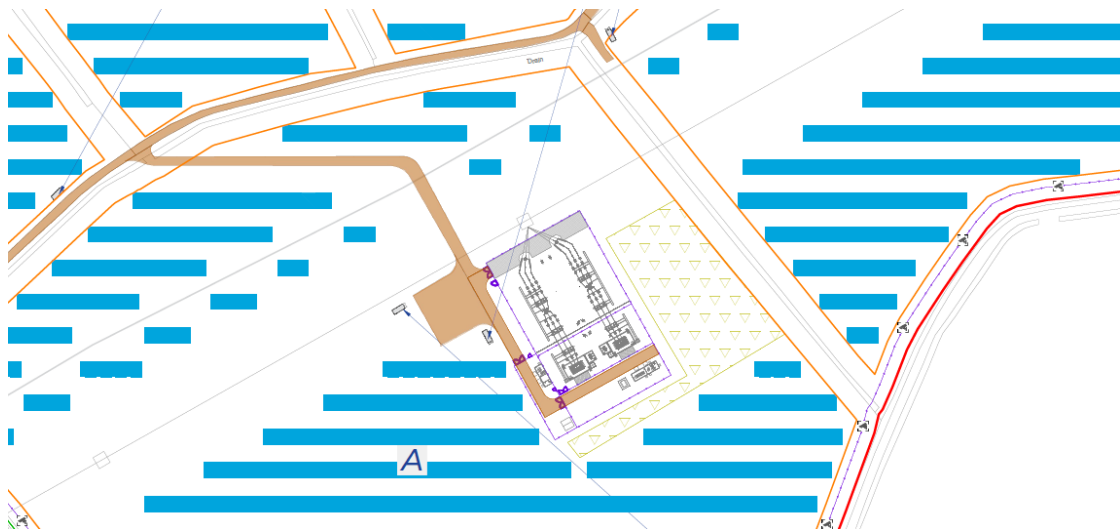


- 5.13 The BESS area will be on raised ground, with material imported and placed on a matting over the existing ground. This is described in section 8 of the oSMP and will be capable of full restoration.

Substation

- 5.14 The substation will connect into the overhead lines. This is shown on the extract from the proposals below.

Insert 8: Proposals for the Substation



- 5.15 The works for this area are described in the oSMP section 9. It is intended that this area be fully restored, and back to the original ALC grade, on decommissioning.

- 5.16 The substation area is shown in the photograph below, looking southeast by the connecting tower.

Photo 13: The Proposed Substation Area, Looking Southeast



Areas Affected

- 5.17 The areas affected temporarily for the tracks, solar inverter cabins, BESS and substation are summarised, rounded up to the nearest 0.1 ha, in Table 2.

Table 2: Areas Affected by ALC Grade

Item	Grade 2 (ha)	Subgrade 3a (ha)	Total (ha)
Inverters	<0.1	0.2	0.3
Track (new)	0.3	0.6	0.9
BESS	0.5	0.0	0.5
Substation	0.0	0.5	0.5
Total	0.9	1.3	2.2

Land Use

- 5.18 The land will be used for grazing sheep and biodiversity enhancement in combination with the solar energy generation. This is a perfectly feasible land use mix, as shown in the following photographs. Light reaches the ground and grass growth is good, sheep can move under the panels unhindered, sheep dogs can work easily, and the Site is well fenced.

Photos 14 and 15: Examples of Sheep Grazing (Eggington, Beds, 2023 and Llanvaply, Monmouth, 2023)



- 5.19 Statistically the Defra “Agricultural Land Use in England at 1 June 2024” data set, published 26 September 2024, identified that of 7,300 ha of solar panels on farms, 3,600 ha were also used for grazing, which is about half.

Decommissioning

- 5.20 The proposed development will be decommissioned and removed in its entirety at the end of the consent.

6 WHETHER THE LAND IS “LOST”

- 6.1 This section reviews:
- (i) the Council’s position;
 - (ii) construction and operational considerations;
 - (iii) planning appeal and related considerations.

The Council’s Position

- 6.2 Both decisions refer to the “loss” of BMV:
- (i) SHDC: **“the loss of such a large area of BMV”**;
 - (ii) FDC: **“would result in a significant loss”** of BMV land.
- 6.3 The SHDC officer’s report refers to the loss of BMV, but it does not provide any detail as to whether this is recognised as a temporary situation or a permanent situation.
- 6.4 The FDC officer’s report at 10.37 refers to the **“loss of arable land (at least for the lifetime of the proposed development)”** and concludes on the subject at 10.29 as follows:
- “With consideration given to the fact that the land could continue to be used for agricultural purposes alongside the production of renewable energy and could return fully to agricultural use at the end of the lifetime of the development it is considered that the substantial environmental, social and economic benefits of the application identified above would outweigh the moderate harm resulting from BMV land being taken out of arable production”.**

Whether Land is Lost

- 6.5 The land is not “lost”. Very little is even disturbed, with disturbance areas being restricted to the tracks and fixed equipment as described in section 5.
- 6.6 The process of installing the solar PV arrays is not generally disturbing to land, as described above. The piles make little impact and do not involve any movement of soil. They do not alter land quality.
- 6.7 The installing of piles is not dissimilar to the installation of frameworks for numerous farming activities, such as polytunnels, hops, orchards and vineyards, as the examples below show.

Photos 16 – 19: Other Agricultural Activities



- 6.8 Only in the areas where there is removal of soil, to create bases for the small extra length of tracks and the transformer stations, is there the potential for agricultural land quality to be affected.
- 6.9 These areas are all capable of restoration to comparable grade at the decommissioning phase. Their “loss”, therefore, is temporary and for the duration of the operational phase only. It is not a permanent loss. It is also only a small area. As set out in Table 2, the temporary disturbance amounts to less than 0.9 ha of Grade 2 and 1.3 ha of Subgrade 3a.

Planning Appeal Decisions

- 6.10 It is widely accepted that agricultural land is not “lost” as a result of solar farm developments. As stated in the Solar Roadmap (DESNZ, 2025, see paragraph 3.23 above), “**solar farms are a temporary and completely reversible land use**”. That has been the conclusion of the Planning Inspectorate in many cases including the following recent planning decisions, selected from a wide choice of appeals:
- (i) in the planning appeal decision on 27th June 2023 for land south of the Leeming Bar substation, the Inspector considered whether or not land was Grade 2 or Subgrade 3b. In her decision (APP/G2713/W/23/3315877) the inspector noted that agricultural use could continue during the operational phase (para 20). She concluded in paragraph 25 as follows:

“As such, the proposal would not result in either the temporary or permanent loss of BMV land as the land would continue to be used for some agricultural purposes whilst also being used to produce solar energy. Nor would the proposal be detrimental to the soil quality, so a return to arable production at a later date would still be possible”;

- (ii) in the decision on land west of Thaxted of 18th December 2023 (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 in paragraph 112:

“Accordingly, I am satisfied that the agricultural land quality of the majority of the BMV on the site would not be harmed and the loss of production from the site would not cause notable harm to food security. Any permanent loss of BMV would be small and not significant”;

- (iii) in the decision for a 47MW solar farm at Little Cheveney Farm, Marden (APP/U2235/W/23/3321094), 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);
- (iv) in the decision at Kemberton, Telford (APP/L3245/W/23/3329815) 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);
- (v) in the decision at Great Wymondley (APP/X1925/V/23/3323321) the Secretary of State agreed with his Inspector on a site of 85 ha of wholly BMV quality (Grades 2 and 3a) that BMV land would not be adversely affected (IR 12.57) and could be farmed, and that there was no policy to require land to be farmed in a particular way (IR 12.57);
- (vi) in the decision at Penhale Moor (APP/D0840/W/23/3334658) the Inspector concluded in paragraph 30 that **“the proposal would not lead to either the temporary or permanent loss of agricultural land”**.

6.11 A recent decision on a site of mostly Subgrade 3a (96%) land (with 4% Grade 2) at Little Hale Fen (APP/R2520/W/25/3363027, 13 August 2025) considered the use of agricultural

land as the single main issue. Paragraph 31 concludes that **“the proposal would not result in the loss of BMVAL”**.

Conclusion

- 6.12 Overall, therefore, it can be concluded that BMV land will not be lost.
- 6.13 The matter is therefore one of land use. The use of land for the grazing of sheep is possible and is a realistic and common practice. The panel design for this site allows for a wide spacing between the strings of panels, which makes grazing particularly easy.
- 6.14 Therefore the land use planning decision will turn not on whether BMV land is “lost”, nor on whether or not BMV will cease to be used for agricultural use for 40 years (because it will not cease to be so used), but on whether or not the importance of arable cropping rather than producing sheep meat and wool is so important that it should outweigh the acknowledged benefits of renewable energy in combination with sheep grazing.

7 HISTORIC AND CURRENT AGRICULTURAL PRODUCTION, AND FUTURE PRODUCTION

Historic Use

- 7.1 As described in section 4, the farmer can recall that this land was all grassland, grazed by cattle, when he was younger. However, for several decades the land has been in arable use.

Current Use

- 7.2 Cropping across the land will vary year to year, as is the nature of farming, but a typical cropping use will involve cereals, normally sown in the autumn, with periodic break crops.
- 7.3 The main crop grown is winter wheat. This is normally a feed wheat variety (ie it goes to animal feed). Yields vary year to year, but are normally in the range of 7.5t/ha up to 10t/ha.
- 7.4 If particular fields have problems with blackgrass, drilling is left as late as possible in the autumn. If the ground becomes wet before drilling is complete, then a spring wheat or a spring barley crop will be drilled after the winter.
- 7.5 Break crops have until recently typically involved oilseed rape, but a stem flea beetle has recently devastated UK oilseed rape production since a particular chemical application was prohibited. The break crop now is likely to be winter beans, grown for stock feed.
- 7.6 The land is not suitable for, and is not used for, root crops such as potatoes and sugar beet. This is in large part because of limitations on the soil, with the land not being accessible for heavy tractors between November and March in most years.
- 7.7 Parts of the Site are used for agri-environmental land uses, including field margins and patches or corners of fields for birdseed mixes.
- 7.8 There is some underfield drainage in parts of the Site. The ditches are under the control of the local Internal Drainage Board. There is no irrigation available.
- 7.9 The land use potential, therefore, in terms of arable cropping is for combineable cereals and break crops. This is important when assessing the contribution this site can provide to food production in the UK.

- 7.10 Consequently the current use is primarily to produce animal feed. This will be used to feed livestock in the UK, or will be exported.

Future Use

- 7.11 If this Appeal is allowed, the future use of the land will be for solar power generation in combination with sheep grazing and biodiversity enhancement. The grazing by sheep will mean that animals are being produced which will go direct to the food chain (finished lambs via slaughter) and wool. Food production will, therefore, take place in combination with energy production.

8 FOOD PRODUCTION AND FOOD SECURITY

Reason for the Assessment

- 8.1 I start this section by referring back to the statements in the Reasons for Refusal:
- (i) SDHC: **“the loss of such a large area of BMV would be a threat to food security, and so when considering the Ministerial Statement of May 15th 2024, it would also result in a threat to national security”;**
 - (ii) FDC: **“the proposed development would result in a significant loss of Best and Most Versatile agricultural land and, therefore, would be a threat to food security”.**

Approach to Analysis

- 8.2 I assess the threat to food security in the following order:
- (i) what is the position on food availability and security worldwide and nationally?
 - (ii) what is the Government’s position in respect of food production and security?
 - (iii) what contribution to national and local food production does this Site make?
 - (iv) are the reasons for refusal correct?

Food Production: World and UK Position

- 8.3 Worldwide the predictions are that food production will increase in the next decade. A recent report by the OECD and the Food and Agriculture Organisation of the United Nations “OECD–FAO Agricultural Outlook 2025 – 2034” (July 2025) predicts that **“to support growing demand, global agricultural and fish production is projected to expand by 14% in constant prices over the next decade, with middle-income countries expected to remain the principal sources of global agricultural expansion”.**
- 8.4 The worldwide projections do not identify food shortages. As a result, the Executive Summary comments that **“the medium-term projection anticipates a modest decline in average annual real agricultural commodity prices, reflecting ongoing average productivity improvements that lower production costs. Consequently, individual farmers, especially smallholders who are often the most vulnerable to market shocks and have limited capacity to adopt innovative technologies, face growing pressure to improve their individual productivity”.**
- 8.5 The Site produces cereals and combineable break crops. As set out in the OECD-FAO report at page 56, total cereal production worldwide is expected to grow by around 1.1% per annum. By 2034 it is predicted that the use of cereals will be as follows:

- 40% directly consumed by humans;
- 33% used for animal feed;
- 27% used for bio-fuels and other uses.

8.6 At a UK level, the UK Food Security Report 2024 was submitted to Government in December 2024. I attach the Gov.uk summary of the report (published 14th January 2025) at **Appendix TK3**. To summarise the summary, the report concludes that:

- (1) global food availability remains stable. Climate change, nature loss and water insecurity pose the greatest risks;
- (2) UK food supply sources are broadly stable. The greatest risk to UK food production is the decline in natural capital;
- (3) UK food supply chains are broadly resilient. Impacts from the invasion of Ukraine, and agri-food sector labour shortages, remain.

8.7 In respect of the details, the UK's overall balance of trade and production is broadly stable. The production-to-supply ration in 2023 was 62% for all food and 75% for indigenous foods, up from 61% and 74% in 2021. Section 2.1.2 of the report records volatility in production in recent years resulting from (principally) the weather. Production of cereals in 2019 was the highest this century (25.5mt) but in 2020 it was the second lowest (19.0mt).

8.8 In respect of food security, the report comments as follows:

“Cereals alone do not provide a healthy, sustainable diet that meets all our nutritional needs. However, in a worst-case scenario, the grain production in 2023 of just under 22 million tonnes would nearly sustain the population from a purely calorific perspective if it was consumed directly by humans. Significantly however, the majority of domestically produced arable crops are not used for direct consumption. Rather, as explored further in Indicator 2.2.4 Land use, a significant proportion goes into animal feed. In 2023, 51.8% (11.4 million tonnes) of wheat, barley and oats were used as animal feed”.

8.9 Overall, therefore, UK and worldwide food production looks stable.

The Government's Position

8.10 The Government has not identified a food security concern or a food supply or production crisis.

- 8.11 In December 2022, in response to press reports about food shortages following the Ukraine invasion, the Government's stated position was that **"the UK has a large and highly resilient food supply chain. Our high degree of food security is built on supply from diverse sources in strong domestic production as well as imports through stable trade routes"** (see Appendix TK4).
- 8.12 The WMS of 15th May 2024 identifies that food security is an essential part of national security, and sets out a commitment to maintain the current level of food we produce domestically. But those statements must be seen in context. The WMS goes on to consider energy security, net zero and clean growth. It sets out that Government expects a five-fold increase in solar deployment by 2035. It sets out that **"due weight needs to be given to the proposed use of BMVAL"**.
- 8.13 The SHDC Reason for Refusal alleges that the WMS identifies food production as a matter of national security. It does so, however, in the context of other matters of national security including energy generation, the need to react to climate change, and the need for clean growth. The 2024 WMS does not give any greater protection to the use of BMV land, nor does it set food production as having any greater importance than other matters.
- 8.14 In his statement to Parliament on 18th July 2024 the Secretary of State set out that **"the biggest threat to nature and food security and to our rural communities is not solar panels or onshore wind: it is the climate crisis, which threatens our best farmland, food production and the livelihood of farmers"**.
- 8.15 In the Solar Roadmap (June 2025) it is noted in Part 2 (page 21) that **"the biggest risk to food security and the natural environment is the climate and nature crisis. That is why it is important that the UK takes a leadership role, working with partners around the world, in accelerating to net zero, including by rapidly expanding solar power generation."** In the solar misconceptions section it states that **"the biggest threat to food security is crop failure due to climate change and solar farms are helping to tackle this directly"**.
- 8.16 In terms of actions and funding, Government has no substantive policy to see agricultural production levels maintained or increased. Farmers can receive funding for agri-environmental land uses under the Sustainable Farming Incentive or the Countryside Stewardship Scheme. The latest land use statistics recorded that as of 1st June 2024 305,000 ha of arable land were in agri-environmental uses rather than food production uses (Agricultural Land Use in England at 1 June 2024, Defra, 26 September 2024).

- 8.17 The Government's Biomass Strategy set out in 2023 that 121,000 ha was in biomass production and the strategy seeks to see that increase (Department for Energy Security and Net Zero, August 2023).
- 8.18 The Government has no policy, initiative or incentive for farmers to produce food specifically. Whilst the WMS of May 2024 refers to maintaining current levels of food production, it clearly does not mean there should be no land use change where land is in food production.
- 8.19 In late January 2025 the Government published a consultation preceding the proposed Land Use Framework. Extracts are at **Appendix TK5**. On page 15 they set out the approximate percentage of England's total agricultural land area that will need to change by 2050. This includes 5% changing mainly to environmental and climate benefit uses with limited food production, and 9% changing away from agricultural food production for environmental and climate change benefits.
- 8.20 In that context, the report comments on page 16 that **"the Government is committed to maintaining food production. Our assessment is that, based on historical trends of productivity improvement, and supported by new and emerging innovations, the impact of these land use changes on domestic food production will be offset by productivity improvements. We expect that recent trends of increased productivity from agricultural land will continue. Working in partnership, Government will put in place a policy environment to support those changes"**. It comments on page 27 that **"we need to build new homes and clean energy, water infrastructure and transport infrastructure at scale and at pace"**.

What Contribution Does This Site Make?

- 8.21 The Site extends to 132 ha. This includes areas of tracks, field corners, dykes etc that are not farmable but which are included in the ALC grading. Realistically the maximum croppable area is less than 132 ha.
- 8.22 For the analysis, however, I will stick with a figure of 132 ha of land. If we assumed a four year rotation of winter sown wheat and a break crop of winter sown beans, the production will be (maximum), using the "high" production figures from the John Nix Farm Management Pocketbook:
- 99 ha of winter wheat at 9.4t/ha, 930 tonnes per annum;
 - 33 ha of winter beans at 4.9t/ha, 162 tonnes.

8.23 The NPPF sets out that the economic and other benefits of BMV land should be recognised. The benefits of BMV land producing cereals and beans is not the absolute production, as the crops can be grown on poorer quality land. It must only relate to the incremental benefit. The John Nix Farm Management Pocketbook sets the difference between “average” and “high” production of winter wheat at 1.2t/ha and for beans at 0.6t/ha. Therefore the food production benefit of the Site, should these panels be placed instead on poorer quality land, is:

- 99 ha of wheat at 1.2t/ha, 119 tonnes;
- 33 ha of winter beans at 0.6t/ha, 20 tonnes.

8.24 In 2024 (2025 figures being not yet available) the United Kingdom produced 19.2 million tonnes of cereals (11.1 million tonnes of wheat, 7.1 million tonnes of barley and 1 million tonnes of oats (Cereal and oilseed production in the UK 2024, Defra, 7th January 2025)). The cropped area was about 2.9 million ha. The UK produced 460,000 tonnes of field beans from a cropped area of 135,000 ha (down from 214,000 ha the previous year) (Agriculture in the UK 2024, Defra (2025)).

8.25 The provisional figures for England for harvest 2025 predict a small increase in wheat production and a small decrease in barley production over 2024, mainly due to planting area differences (Provisional Cereal and Oilseed Production Estimates for England 2024, Defra, 9 October 2025).

8.26 Whether the figures used are for absolute production or the more realistic figure of incremental production, the proportion of UK production is negligible:

- absolute production represents 0.005% of cereal production and 0.035% of winter beans production;
- the incremental production represents 0.0006% of UK cereal production and 0.0043% of UK winter beans production.

8.27 Locally the contribution is also negligible. The Defra statistical spreadsheet for 2024 records the cereals and beans areas of Lincolnshire and Cambridgeshire as follows. As cropping changes year to year (as noted, the area of winter beans almost halved between 2023 and 2024) the figures will vary on an annual basis.

Table 3: Cereals and Beans Areas of Lincolnshire and Cambridgeshire

Crop	Area in hectares 2024		Total
	Lincolnshire	Cambridgeshire	
Cereals	232,505	126,293	358,798
Field beans	15,714	8,278	23,992

Source: Defra Structure of Agriculture in England, County Statistics 2024, Defra (2025)

- 8.28 The contribution of 99 ha of cereals is 0.028% of the cereals area in Lincolnshire and Cambridgeshire combined. For field beans, a minority crop, the figure is 0.137%, but as noted in 2023 the UK grew almost twice the area of field beans so the figure is still negligible.

What Planning Policy Addresses Food Production?

- 8.29 There is no planning policy that requires agricultural land to be farmed, or farmed in a particular manner, or farmed at a particular level of intensity. There are no targets or financial incentives for producing food of any type.

Are the Reasons for Refusal Correct?

- 8.30 SHDC allege that the loss of such a large area of BMV land would be a threat to food security and to national security. The temporary use of the Site would have a negligible impact on food production regionally and nationally. The majority of the produce grown goes for animal feed and the quantum involved, in absolute as well as the more realistic incremental analyses terms, are negligible.
- 8.31 FDC simply alleges a threat to food security. There is no evidence that this negligible impact will affect food security nationally or locally.
- 8.32 Government's policy statements and land use planning has identified the contribution that will be needed from solar and environmental land use change, and still concluded that food security will not be harmed, and indeed food production (including non-food cropping) will gradually increase.
- 8.33 The Council's reasons for refusal are without any substance in fact and without any policy basis.

9 LAND QUALITY IN THE WIDER AREA

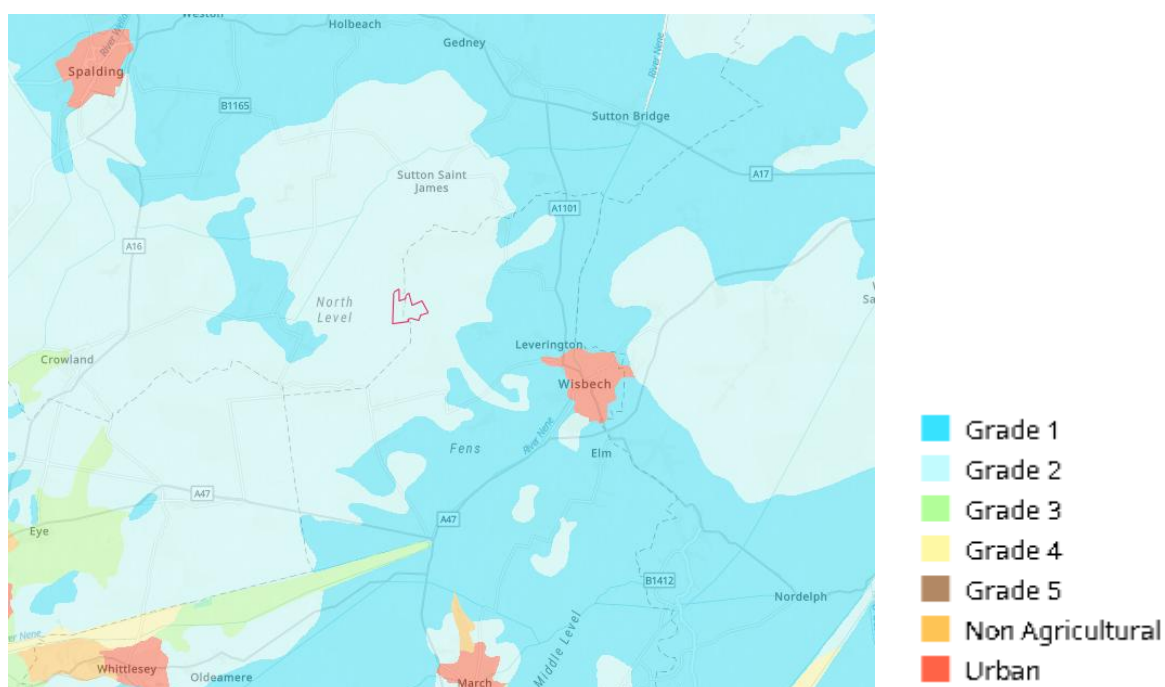
9.1 SDHC's reason for refusal states that it has not been shown that “**land of poorer quality does not exist**”. FDC does not raise this issue or make this allegation.

9.2 I therefore review what information is available.

Published Information

9.3 On the “provisional” ALC maps produced by MAFF in the 1970s, now digitised, the Site is shown as lying in an area of Grade 2, as shown on Insert 9.

Insert 9: Provisional ALC (site edged red)



9.4 The provisional ALC maps predict that almost all the land in both local planning authorities is in Grades 1 and 2, as set out in Table 4.

Table 4: Proportion of Land by ALC Grade (%)

ALC Grade	England	Fenland	South Holland
1 Excellent	3.1	58.2	58.1
2 Very good	16.2	35.4	40.2
3 Good to moderate	55.0	5.3	0.4
4 Poor	16.1	1.1	1.3
5 Very poor	9.6	0.0	0.0
Total	100.0	100.0	100.0

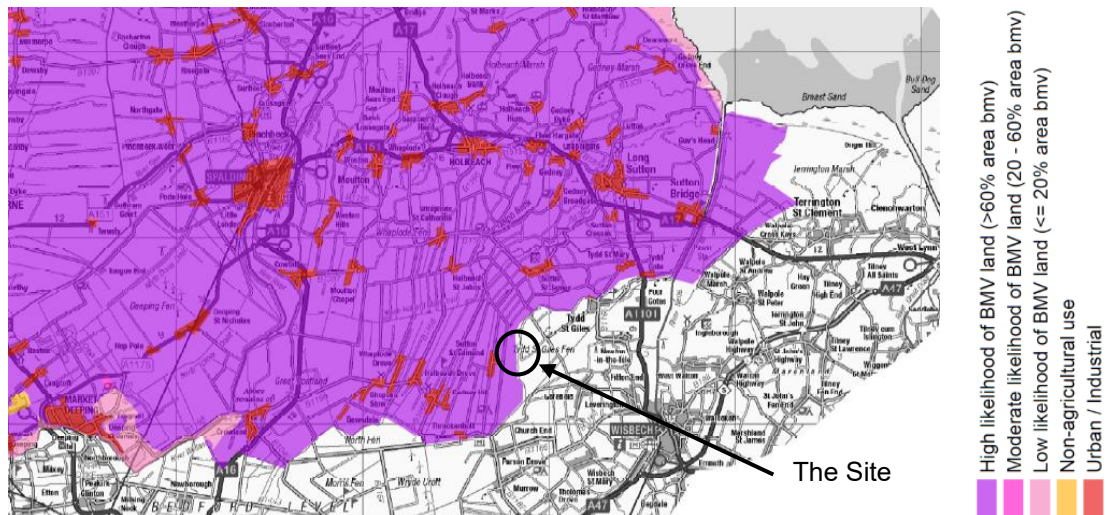
9.5 Natural England estimate that 42% of agricultural land in England is of Grades 1, 2 and 3a. Statistically about 40% of Grade 3 is therefore expected to be of Subgrade 3a. If that statistic is applied to the figures above, then the proportion of land of BMV in each Council's area is as follows:

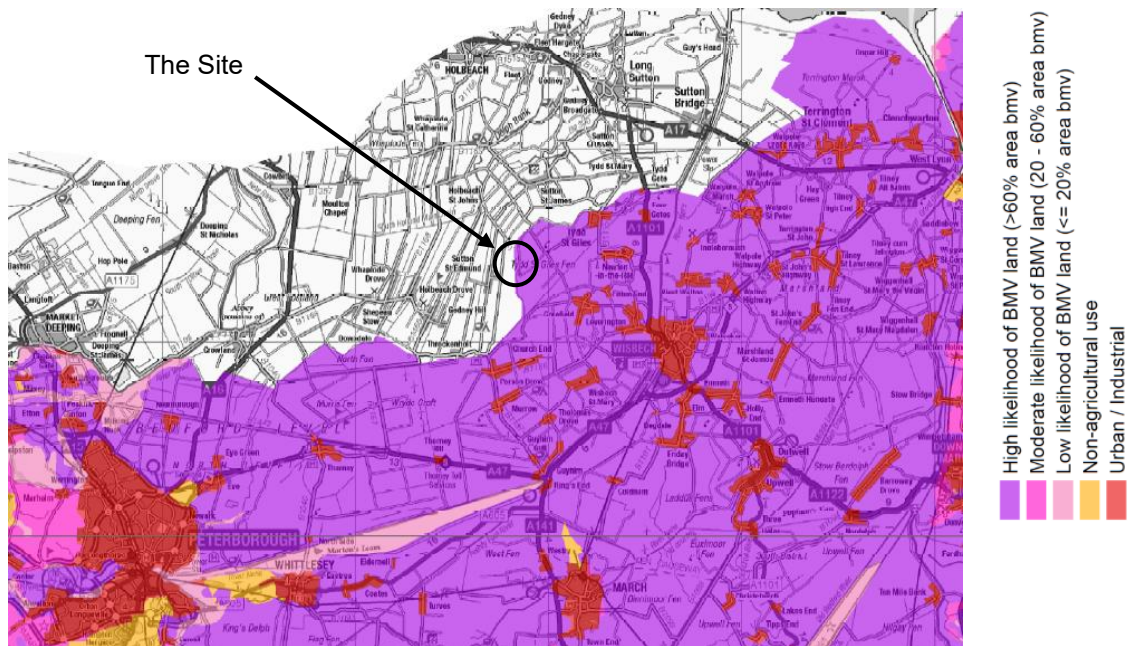
- FDC: 95.7% of land is BMV;
- SHDC: 98.5% of land is BMV.

9.6 These maps must be treated with caution. The Appeal Site, for example, is poorer than the provisional maps showed. However, it is clear that land of poorer quality is simply not available in any significant scale within the two administrative areas.

9.7 On the Likelihood of BMV quality, the Site and almost all of the land in the wider area is shown as falling into the >60% area BMV category. The site location is indicated.

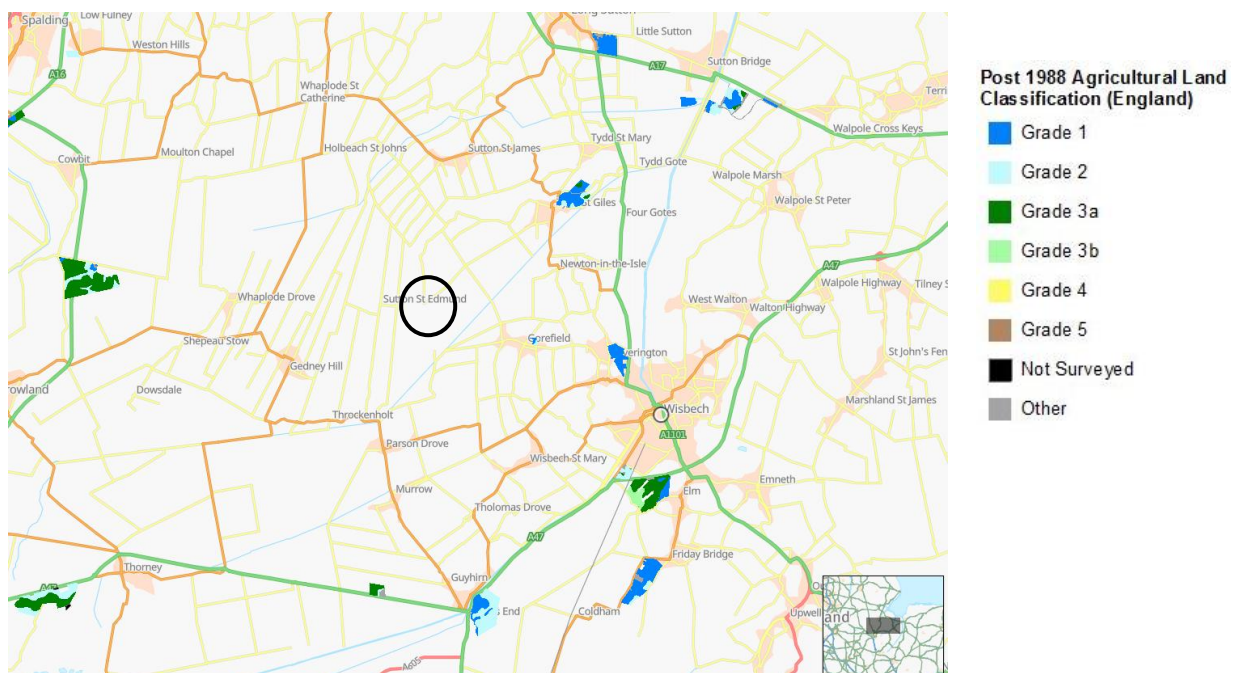
Inserts 10 and 11: Likelihood of BMV Maps





9.8 Where detailed ALC surveys have been carried out in the past by MAFF or its agencies, the results are shown on www.magic.gov.uk. Results in the wider area are as shown on the plan below.

Insert 12: Available ALC Results (Site shown by circle)



9.9 Almost all of the land surveyed was identified as BMV.

9.10 Therefore there is no evidence or expectation that poorer quality land (ie Subgrade 3b or lower) will be found or be available at this scale within either administrative area.

10 SUMMARY: SHDC DECISION

- 10.1 SHDC allege that the loss of such a large area of BMV will result in a threat to national security. The Council alleges that it has not been shown that poorer quality land does not exist.

The Site, Land Quality and Land Use

- 10.2 The Site is a mixture with 11% Grade 2 and 89% of the agricultural land Subgrade 3a. About two thirds of the Grade 2 lies in the SHDC administrative area. The land is used for arable cropping, being wheat, barley, oilseed rape or winter beans, and some agri-environmental cropping. The crops are normally sold as animal feed.

Is Land Lost?

- 10.3 The BMV land will not be lost. The installation of solar farms does not result in extensive disturbance to agricultural land and the land can continue to be used for agricultural use in combination with energy generation.

Impact on Food Security

- 10.4 The Council's case is that the reduction of crop production is so significant that it outweighs the benefits of renewable energy. The Council goes further and states that the loss is a matter of national security.
- 10.5 The sole evidence put forward in support of this position is the first sentence of the 2024 WMS. That identifies the importance of food security and sets out Government's commitment to maintain the current levels of food production. It does not, however, state that using land (good quality or otherwise) is a matter of national security. The WMS goes on to set out competing land use needs, and ends by concluding that the Government should be racing ahead with the deployment of renewable energy, especially solar.
- 10.6 The current administration has taken a similar view. The competing land use considerations have been balanced and the need for renewable energy has been clearly stated. The biggest threat to food security, Government states, is from the climate crisis, which solar is helping to tackle.
- 10.7 There is no factual basis for the Council's position either:
- (i) there is no evidence of declining self-sufficiency in the UK;
 - (ii) there is no evidence of a food supply crisis or concern in the UK;

- (iii) there is no evidence of a food supply crisis or concern worldwide, with food production expected to increase in the next decade;
- (iv) most of the produce from the land goes into animal feed;
- (v) there is the potential for continued agricultural use, in the form of sheep production, so agricultural and food production is not lost;
- (vi) there is no evidence that a food security issue will arise if production changes from cereals and break crops to sheep meat and wool;
- (vii) in the local and national context, the implications are negligible in any event.

10.8 The Council also suggests that poorer quality land could be used in preference. The Council's area is almost wholly expected to be of BMV quality, with the provisional statistics suggesting as little as 1.5% of agricultural land will be of poorer quality. The location of that land is not known. The Site is mostly Subgrade 3a and likely to be the poorest quality land available.

Conclusion

10.9 The Council's allegation that the loss of arable production from the 61.6 ha lying within their administrative area will result in an adverse impact on national food security is without policy or factual basis. Their allegation that this is so significant that it amounts to a matter of national security is a nonsense.

11 SUMMARY: FDC DECISION

- 11.1 FDC allege that the proposal is a significant loss of BMV land and will result in a threat to food security.

The Site, Land Quality and Land Use

- 11.2 The Site is a mixture with 11% Grade 2 and 89% of the agricultural land Subgrade 3a. About one third of the Grade 2 lies in the FDC administrative area. The land is used for arable cropping, being wheat, barley, oilseed rape or winter beans, and some agri-environmental cropping. The crops are normally sold as animal feed.

Is Land Lost?

- 11.3 The BMV land will not be lost. The installation of solar farms does not result in extensive disturbance to agricultural land and the land can continue to be used for agricultural use in combination with energy generation.

Impact on Food Security

- 11.4 The Council's decision, made contrary to officer advice and recommendations, is that the reduction of crop production outweighs the benefits of renewable energy.
- 11.5 As this is a committee decision contrary to officer recommendations, that basis for the reason for refusal has not been set out.
- 11.6 There is no basis in the 2024 WMS, by the last administration. That concluded that the development of solar energy, having assessed the amount of land required, should proceed at pace.
- 11.7 The current administration has taken a similar view. The competing land use considerations have been balanced and the need for renewable energy has been clearly stated. The biggest threat to food security, Government states, is from the climate crisis, which solar is helping to tackle.
- 11.8 There is no factual basis for the Council's position either:
- (i) there is no evidence of declining self-sufficiency in the UK;
 - (ii) there is no evidence of a food supply crisis or concern in the UK;
 - (iii) there is no evidence of a food supply crisis or concern worldwide, with food production expected to increase in the next decade;
 - (iv) most of the produce from the land goes into animal feed;

- (v) there is the potential for continued agricultural use, in the form of sheep production, so agricultural and food production is not lost;
- (vi) there is no evidence that a food security issue will arise if production changes from cereals and break crops to sheep meat and wool;
- (vii) in the local and national context, the implications are negligible in any event.

Conclusion

- 11.9 The Council's allegation that the loss of arable production from the 66.5 ha lying within their administrative area will result in an adverse impact on national (or local) food security is without policy or factual basis.

APPENDIX TK1
Curriculum Vitae



CURRICULUM VITAE

ANTHONY PAUL KERNON

SPECIALISMS

- Assessing the impacts of development proposals on agricultural land and rural businesses
- Agricultural building and dwelling assessments
- Equestrian building and dwelling assessments (racing, sports, rehabilitation, recreational enterprises)
- Farm and estate diversification and development
- Inputs to Environmental Impact Assessment
- Expert witness work



SYNOPSIS

Tony is a rural surveyor with 35 years experience in assessing agricultural land issues, farm and equestrian businesses and farm diversification proposals, and the effects of development proposals on them. Brought up in rural Lincolnshire and now living on a small holding in Wiltshire, he has worked widely across the UK and beyond. He is recognised as a leading expert nationally in this subject area. Married with two children. Horse owner.

Tony's specialism is particularly in the following key areas:

- assessing the need for agricultural and equestrian development, acting widely across the UK for applicants and local planning authorities alike;
- farm development and diversification planning work, including building reuse and leisure development, Class Q, camping etc;
- assessing development impacts, including agricultural land quality and the policy implications of losses of farmland due to residential, commercial, solar or transport development, and inputs to Environmental Assessment;
- and providing expert evidence on these matters to Planning Inquiries and Hearings, court or arbitrations.

QUALIFICATIONS

Bachelor of Science Honours degree in Rural Land Management, University of Reading (BSc(Hons)). 1987. Awarded 2:1.

Diploma of Membership of the Royal Agricultural College (MRAC).

Professional Member of the Royal Institution of Chartered Surveyors (MRICS) (No. 81582). (1989).

OTHER PROFESSIONAL ACTIVITIES

Co-opted member of the Rural Practice Divisional Council of the Royal Institution of Chartered Surveyors. (1994 - 2000)

Member of the RICS Planning Practice Skills Panel (1992-1994)

Member of the RICS Environmental Law and Appraisals Practice Panel (1994 - 1997).

Fellow of the British Institute of Agricultural Consultants (FBIAC) (1998 onwards, Fellow since 2004).

Secretary of the Rural Planning Division of the British Institute of Agricultural Consultants (BIAC) (1999 – 2017).

Vice-Chairman of the British Institute of Agricultural Consultants (2019 – 2020)

Chairman of the British Institute of Agricultural Consultants (2020 – 2022)

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Purton Stoke, Swindon SN5 4LL
T: 01793 771333 Email: info@kernon.co.uk
Website: www.kernon.co.uk*



EXPERIENCE AND APPOINTMENTS

- 1997 -----> **Kernon Countryside Consultants.** Principal for the last 27 years of agricultural and rural planning consultancy specialising in research and development related work. Specialisms include essential dwelling and building assessments, assessing the effects of development on land and land-based businesses, assessing the effects of road and infrastructure proposals on land and land-based businesses, and related expert opinion work. Tony specialises in development impact assessments, evaluating the effects of development (residential, solar, road etc) on agricultural land, agricultural land quality, farm and other rural businesses.
- 1987 - 1996 **Countryside Planning and Management,** Cirencester. In nearly ten years with CPM Tony was involved in land use change and environmental assessment studies across the UK and in Europe. From 1995 a partner in the business.
- 1983 - 1984 **Dickinson Davy and Markham,** Brigg. Assistant to the Senior Partner covering valuation and marketing work, compulsory purchase and compensation, and livestock market duties at Brigg and Louth.

RECENT RELEVANT EXPERIENCE

TRAINING COURSES

Landspreading of Non Farm Wastes. Fieldfare training course, 24 – 25 November 2009
Foaling Course. Twemlows Hall Stud Farm, 28 February 2010
Working with Soil: Agricultural Land Classification. 1 – 2 November 2017

TRANSPORT ENVIRONMENTAL ASSESSMENT CONTRIBUTIONS

Tony has provided EIA input, and Public Inquiry evidence as required, on around 40 major road projects across England and Wales.

NSIP/DCO SOLAR INPUTS

Heckington Fen Solar Park
Mallard Pass Solar Project
Penpergwm
Parc Solar Traffwll
Alaw Môn Solar Farm
Parc Solar Caenewydd
Tween Bridge Solar Farm
Gate Burton Energy Park
Great North Road Solar
Helios Renewable Energy Project
Dean Moor Solar Farm
Oaklands Farm Solar Park

Maen Hir Solar and Energy Project
The Droves Solar Farm
Bodelwyddan
East Pye Solar
Alleston Solar Farm
Steeple Renewables Project
Green Hil Solar Farm

EXPERT EVIDENCE GIVEN AT PUBLIC INQUIRIES AND HEARINGS

- | | | |
|------|---|--|
| 1992 | Brooklands Farm: Buildings reuse | Bonehill Mill Farm: New farm building |
| | Chase Farm, Maldon: Removal of condition | |
| 1993 | Haden House: Removal of condition | Manor Farm: New farm dwelling |
| 1994 | Brooklands Farm: 2 nd Inquiry (housing) | Cameron Farm: Mobile home |
| | Barr Pound Farm: Enforcement appeal | Land at Harrietsham: Enforcement appeal |
| | Fortunes Farm Golf Course: Agric effects | |
| 1995 | Village Farm: New farm dwelling | Attlefield Farm: Size of farm dwelling |
| | Claverdon Lodge: Building reuse | Bromsgrove Local Plan: Housing allocation |

	Harelands Farm: Barn conversion	Lichfield Local Plan: Against MAFF objection
	Castle Nurseries: Alternative site presentation	Hyde Colt: Mobile home / glasshouses
1996	Church View Farm: Enforcement appeal	Highmoor Farm: New farm dwelling
	Flecknoe Farm: Second farm dwelling	Gwenfa Fields: Removal of restriction
1997	Basing Home Farm: Grain storage issue	Yatton: Horse grazing on small farm
	Viscar Farm: Need for farm building / viability	Newbury Local Plan: Effects of development
	Lane End Mushroom Farm: Need for dwelling	
1998	Moorfields Farm: New farm dwelling	Two Burrows Nursery: Building retention
	Maidstone Borough LPI: Effects of dev'tment	Dunball Drove: Need for cattle incinerator
	Glenfield Cottage Poultry Farm: Bldg reuse	
1999	Holland Park Farm: Farm dwelling / calf unit	Lambriggan Deer Farm: Farm dwelling
	Northington Farm: Existing farm dwelling	
2000	Twin Oaks Poultry Unit: Traffic levels	Coldharbour Farm: Buildings reuse
	Meadows Poultry Farm: Farm dwelling	Heathy Farm: Mobile home
	Hazelwood Farm: Beef unit and farm dwelling	Wheal-an-Wens: Second dwelling
	Shardeloes Farm: Farm buildings	Apsley Farm: Buildings reuse
	Aylesbury Vale Local Plan: Site issues	Home Farm: Size of grainstore
	Deptford Farm: Buildings reuse	A34/M4 Interchange: Agricultural evidence
2001	Lambriggan Deer Farm: Farm dwelling	Weyhill Nursery: Second dwelling
	Blueys Farm: Mobile home	Mannings Farm: Farm dwelling
2002	A419 Calcutt Access: Effect on farms	Land Adj White Swan: Access alteration
	Cobweb Farm: Buildings reuse / diversification	Happy Bank Farm: Lack of need for building
	Philips Farm: Farm dwelling	Lower Park Farm: Building reuse / traffic
	West Wilts Local Plan Inquiry: Dev site	Stourton Hill Farm: Diversification
	Manor Farm: Building reuse	
2003	Fairtrough Farm: Equine dev and hay barn	Darren Farm: Impact of housing on farm
	Hollies Farm: Manager's dwelling	Greenways Farm: Farm diversification
	Land at Springhill: Certificate of lawfulness	Land at Four Marks: Dev site implications
	Oak Tree Farm: Mobile home	
2004	Chytane Farm: Objector to farm dwelling	Oldberrow Lane Farm: Relocation of buildings
	Crown East: Visitor facility and manager's flat	Forestry Building, Wythall: Forestry issues
	Swallow Cottage: Widening of holiday use	Lower Dadkin Farm: Mobile home
	Etchden Court Farm: New enterprise viability	Villa Vista: Viability of horticultural unit
	Attleborough Bypass: On behalf of Highways Agency	
2005	Howells School: Use of land for horses	Newton Lane: Enforcement appeal
	Otter Hollow: Mobile home	Manor Farm: Change of use class
	Springfield Barn: Barn conversion	South Hatch Stables: RTE refurbishment
	Ashley Wood Farm: Swimming pool	Trevaskis Fruit Farm: Farm dwelling
	The Hatchery: Mobile home	Tregased: Enforcement appeal
	Stockfields Farm: Building reuse	
2006	Manor Farm: Replacement farmhouse	Bhaktivedanta Manor: Farm buildings
	Sough Lane: Farm dwelling	Military Vehicles: Loss of BMV land
	Whitewebbs Farm: Enforcement appeal	Ermine Street Stables: Enforcement appeal
	Land at Condicote: Farm dwelling	Featherstone Farm: Replacement buildings
	Rye Park Farm: Enforcement appeal	Flambards: Mobile home and poultry unit
	Woodrow Farm: Buildings reuse	Manor Farm: Effect of housing on farm
	Rectory Farm: Retention of unlawful bldg	Goblin Farm: Arbitration re notice to quit
	Walltree Farm: Retention of structures	Terrys Wood Farm: Farm dwelling
	Weeford Island: Land quality issues	Etchden Court Farm: Mobile home
	College Farm: Relocation of farmyard	Hollowshot Lane: Farm dwelling and buildings
2007	Woolly Park Farm: Manager's dwelling	Barcroft Hall: Removal of condition
	Park Gate Nursery: Second dwelling	Kent Access Road: Effect on farms
	Penyrheol Ias: Retention of bund	Greys Green Farm: Enforcement appeal
	Hucksholt Farm: New beef unit in AONB	A40 Robeston Wathen bypass: Underpass
	The Green, Shrewley: Mobile home	Woodland Wild Boar: Mobile homes
	Brook Farm: Retention of polytunnels	

2008	Weights Farm: Second dwelling	Whitegables: Stud manager's dwelling
	Hill Farm: Mobile home	Balaton Place: Loss of paddock land
	Relocaton of Thame Market: Urgency issues	Point to Point Farm: Buildings / farm dwelling
	Spinney Bank Farm: Dwelling / viability issues	Norman Court Stud: Size of dwelling
	Higham Manor: Staff accommodation	High Moor: Temporary dwelling
2009	Robeston Watham bypass: Procedures Hearing	Land at St Euny: Bldg in World Heritage Area
	Monks Hall: Covered sand school	Baydon Meadow: Wind turbine
	Porthmadog bypass: Road scheme inquiry	Meadow Farm: Building conversion
	Claverton Down Stables: New stables	Bishop's Castle Biomass Power Station: Planning issues
	Hailsham Market: Closure issues	Foxhills Fishery: Manager's dwelling
2010	Gambledown Farm: Staff dwelling	Bryn Gollen Newydd: Nuisance court case
	Oak Tree Farm: Farm dwelling	Swithland Barn: Enforcement appeal
	A470 Builth Wells: Off line road scheme	Woodrow Farm: Retention of building
	Hill Top Farm: Second dwelling	Stubwood Tankers: Enforcement appeal
	Sterts Farm: Suitability / availability of dwelling	Meridian Farm: Retention of building
2011	Poultry Farm, Christmas Common: Harm to AONB	Swithland Barn: Retention of building
	Wellsprings: Rention of mobile home	A477 Red Roses to St Clears: Public Inquiry
	Redhouse Farm: Manager's dwelling	Upper Bearfield Farm: Additional dwelling
	Lobbington Fields Farm: Financial test	North Bishops Cleeve: Land quality issues
	Fairtrough Farm: Enforcement appeal	Langborrow Farm: Staff dwellings
2012	Etchden Court Farm: Farm dwelling	Heads of the Valley S3: Improvements
	Trottiscliffe Nursery: Mobile home	Seafeld Pedigrees: Second dwelling
	Tickbridge Farm: Farm dwelling	Beedon Common: Permanent dwelling
	Blaenanthir Farm: Stables and sandschool	Upper Youngs Farm: Stables / log cabin
	Land at Stonehill: Eq dentistry / mobile home	Tithe Barn Farm: Enforcement appeal
2013	Cwmcoedlan Stud: Farm dwelling with B&B	Lower Fox Farm: Mobile home / building
	Barnwood Farm: Farm dwelling	Tewinbury Farm: Storage barn
	Spring Farm Barn: Building conversion	Church Farm: Solar park construction
	Baydon Road: Agricultural worker's dwelling	Land at Elsfield: Retention of hardstanding
	Stapleford Farm: Building reuse	Queensbury Lodge: Potential development
2014	Meddler Stud: Residential development	Kellygreen Farm: Solar park development
	Deer Barn Farm: Agricultural worker's dwelling	Spring Farm Barn: Building conversion
	Land at Stow on the Wold: Housing site	Land at Willaston: Residential development
	Allspheres Farm: Cottage restoration	Bluebell Cottage: Enforcement appeal
	Land at Stonehill: Equine dentistry practice	Clemmit Farm: Mobile home
2015	Spring Farm Yard: Permanent dwelling	Honeycrock Farm: Farmhouse retention
	Land at Valley Farm: Solar park	The Mulberry Bush: Farm dwelling
	Land at Haslington: Residential development	Redland Farm: Residential dev issues
	Manor Farm: Solar farm on Grade 2 land	Emlagh Wind Farm: Effect on equines
	Penland Farm: Residential development	Fox Farm: Building conversion to 2 dwellings
2016	Sandyways Nursery: Retention of 23 caravans	Wadborough Park Farm: Farm buildings
	The Lawns: Agricultural building / hardstanding	Delamere Stables: Restricted use
	Harefield Stud: Stud farm / ag worker's dwelling	Meddler Stud: RTE and up to 63 dwellings
	Newtown Bypass: Compulsory purchase orders	Land off Craythorne Road: Housing dev
	Barn Farm: Solar farm	Berkshire Polo Club: Stables / accomm
2017	Hollybank Farm: Temporary dwelling renewal	Harcourt Stud: Temporary dwelling
	Five Oaks Farm: Change of use of land and temporary dwelling	Clemmit Farm: Second redetermination
	Clemmit Farm: Redetermination	Stonehouse Waters: Change of use of lake
	The Lawns: Replacement building	
	Land at the Lawns: Cattle building	

2018	Land at Felsted: Residential development	Watlington Road: Outline app residential
	Thorney Lee Stables: Temporary dwelling	A465 Heads of the Valley 5/6: Agric effects
	Benson Lane: Outline app residential	The Old Quarry: Permanent dwelling
	Park Road, Didcot: Outline app residential	Chilaway Farm: Removal of condition
2019	Coalpit Heath: Residential development	Leahurst Nursery: Temporary dwelling
	Mutton Hall Farm: Agric worker's dwelling	Icomb Cow Pastures: Temp mobile home
	Clemmit Farm: Third redetermination	Forest Faconry: Construction of hack pens
	Ten Acre Farm: Enforcement appeal	
2020	Harrold: 94 Residential dwellings	Hazeldens Nursery: Up to 84 extra care units
	Stan Hill: Temp dwelling/agric. buildings	Leahurst Nursery: Agricultural storage bldg
2021	Allspheres Farm: Enlargement of farm dwelling	Sketchley Lane, Burbage: Industrial and residential development
	Ruins: Dwelling for tree nursery	Park Solar Traffwl: Solar Hearing
2022	Thornbury: Local BMV	
2023	Penpergwym: Solar Farm Hearing	Scruton Solar Farm: Effects on BMV and food
	Mudds Bank: Equestrian workers dwelling	Land at East Burnham: Equestrian facilities
	Mallard Pass NSIP: Issue specific hearing	Fladbury: Housing on BMV land
	Bramford Solar: Loss of BMV / food	Pound Road, Axminster: BESS and BMV
	Gate Burton NSIP: BMV and Food	Wymondley Solar: Use of BMV
	Heckington Fen NSIP: Issue Hearing	Little Acorn Farm, St Keyne: Worker's dwelling
	Cutlers Green Solar: Use of BMV	
	Twigworth, Glos: Use of BMV land	Longhedge Solar: BMV and food security
	Sheepwash Solar, Kent: Use of BMV land	Oaklands Solar NSIP: Topic Hearing
	Wasdyke Solar, Grantham: Use of BMV	Old Malton Solar: Impacts on local agriculture
2024	Copper Bottom Solar, Camborne: Use of BMV	Knapthorne Solar: BMV
	East End Solar, Harlow: Use of BMV	Helios Renewables NSIP: Topic Hearing
	Sittingbourne, Kent: Housing on BMV	
	Murrells End Solar, Gloucester: BMV	Alaw Môn Solar Farm: BMV policy Wales
	Woolpots Solar: BMV	Fillongley Solar: BMV
	Chimmens Solar Farm: BMV	Glebe Solar: BMV
	Saxham Industrial: BMV and Industry	
	New Hall Farm Solar: BMV	

APPENDIX TK2
Natural England's Technical
Information Note TIN049

Agricultural Land Classification: protecting the best and most versatile agricultural land

Most of our land area is in agricultural use. How this important natural resource is used is vital to sustainable development. This includes taking the right decisions about protecting it from inappropriate development.

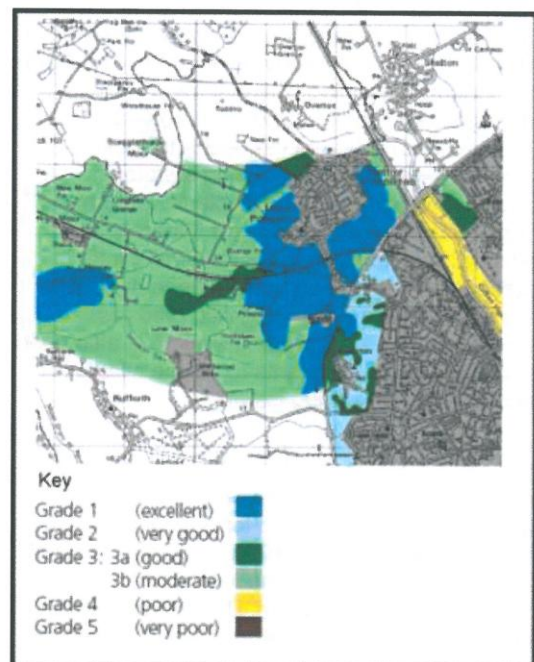
Policy to protect agricultural land

Government policy for England is set out in the National Planning Policy Framework (NPPF) published in March 2012 (paragraph 112). Decisions rest with the relevant planning authorities who should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of higher quality. The Government has also re-affirmed the importance of protecting our soils and the services they provide in the Natural Environment White Paper The Natural Choice:securing the value of nature (June 2011), including the protection of best and most versatile agricultural land (paragraph 2.35).

The ALC system: purpose & uses

Land quality varies from place to place. The Agricultural Land Classification (ALC) provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. It helps

underpin the principles of sustainable development.



Agricultural Land Classification - map and key

Second edition 19 December 2012

www.naturalengland.org.uk



Agricultural Land Classification: protecting the best and most versatile agricultural land

The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a by policy guidance (see Annex 2 of NPPF). This is the land which is most flexible, productive and efficient in response to inputs and which can best deliver future crops for food and non food uses such as biomass, fibres and pharmaceuticals. Current estimates are that Grades 1 and 2 together form about 21% of all farmland in England; Subgrade 3a also covers about 21%.

The ALC system is used by Natural England and others to give advice to planning authorities, developers and the public if development is proposed on agricultural land or other greenfield sites that could potentially grow crops. The Town and Country Planning (Development Management Procedure) (England) Order 2010 (as amended) refers to the best and most versatile land policy in requiring statutory consultations with Natural England. Natural England is also responsible for Minerals and Waste Consultations where reclamation to agriculture is proposed under Schedule 5 of the Town and Country Planning Act 1990 (as amended). The ALC grading system is also used by commercial consultants to advise clients on land uses and planning issues.

Criteria and guidelines

The Classification is based on the long term physical limitations of land for agricultural use. Factors affecting the grade are climate, site and soil characteristics, and the important interactions between them. Detailed guidance for classifying land can be found in: *Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988):

- **Climate:** temperature and rainfall, aspect, exposure and frost risk.
- **Site:** gradient, micro-relief and flood risk.
- **Soil:** texture, structure, depth and stoniness, chemical properties which cannot be corrected.

The combination of climate and soil factors determines soil wetness and droughtiness.

Wetness and droughtiness influence the choice of crops grown and the level and consistency of yields, as well as use of land for grazing livestock. The Classification is concerned with the inherent potential of land under a range of farming systems. The current agricultural use, or intensity of use, does not affect the ALC grade.

Versatility and yield

The physical limitations of land have four main effects on the way land is farmed. These are:

- the range of crops which can be grown;
- the level of yield;
- the consistency of yield; and
- the cost of obtaining the crop.

The ALC gives a high grading to land which allows more flexibility in the range of crops that can be grown (its 'versatility') and which requires lower inputs, but also takes into account ability to produce consistently high yields of a narrower range of crops.

Availability of ALC information

After the introduction of the ALC system in 1966 the whole of England and Wales was mapped from reconnaissance field surveys, to provide general strategic guidance on land quality for planners. This Provisional Series of maps was published on an Ordnance Survey base at a scale of One Inch to One Mile in the period 1967 to 1974. These maps are not sufficiently accurate for use in assessment of individual fields or development sites, and should not be used other than as general guidance. They show only five grades: their preparation preceded the subdivision of Grade 3 and the refinement of criteria, which occurred after 1976. They have not been updated and are out of print. A 1:250 000 scale map series based on the same information is available. These are more appropriate for the strategic use originally intended and can be downloaded from the Natural England [website](http://magic.defra.gov.uk/). This data is also available on 'Magic', an interactive, geographical information website <http://magic.defra.gov.uk/>.

Since 1976, selected areas have been re-surveyed in greater detail and to revised

Agricultural Land Classification: protecting the best and most versatile agricultural land

guidelines and criteria. Information based on detailed ALC field surveys in accordance with current guidelines (MAFF, 1988) is the most definitive source. Data from the former Ministry of Agriculture, Fisheries and Food (MAFF) archive of more detailed ALC survey information (from 1988) is also available on <http://magic.defra.gov.uk/>. Revisions to the ALC guidelines and criteria have been limited and kept to the original principles, but some assessments made prior to the most recent revision in 1988 need to be checked against current criteria. More recently, strategic scale maps showing the likely occurrence of best and most versatile land have been prepared. Mapped information of all types is available from Natural England (see *Further information* below).

New field survey

Digital mapping and geographical information systems have been introduced to facilitate the provision of up-to-date information. ALC surveys are undertaken, according to the published Guidelines, by field surveyors using handheld augers to examine soils to a depth of 1.2 metres, at a frequency of one boring per hectare for a detailed assessment. This is usually supplemented by digging occasional small pits (usually by hand) to inspect the soil profile. Information obtained by these methods is combined with climatic and other data to produce an ALC map and report. ALC maps are normally produced on an Ordnance Survey base at varying scales from 1:10,000 for detailed work to 1:50 000 for reconnaissance survey

There is no comprehensive programme to survey all areas in detail. Private consultants may survey land where it is under consideration for development, especially around the edge of towns, to allow comparisons between areas and to inform environmental assessments. ALC field surveys are usually time consuming and should be initiated well in advance of planning decisions. Planning authorities should ensure that sufficient detailed site specific ALC survey data is available to inform decision making.

Consultations

Natural England is consulted by planning authorities on the preparation of all development

plans as part of its remit for the natural environment. For planning applications, specific consultations with Natural England are required under the Development Management Procedure Order in relation to best and most versatile agricultural land. These are for non agricultural development proposals that are not consistent with an adopted local plan and involve the loss of twenty hectares or more of the best and most versatile land. The land protection policy is relevant to all planning applications, including those on smaller areas, but it is for the planning authority to decide how significant the agricultural land issues are, and the need for field information. The planning authority may contact Natural England if it needs technical information or advice.

Consultations with Natural England are required on all applications for mineral working or waste disposal if the proposed afteruse is for agriculture or where the loss of best and most versatile agricultural land agricultural land will be 20 ha or more. Non-agricultural afteruse, for example for nature conservation or amenity, can be acceptable even on better quality land if soil resources are conserved and the long term potential of best and most versatile land is safeguarded by careful land restoration and aftercare.

Other factors

The ALC is a basis for assessing how development proposals affect agricultural land within the planning system, but it is not the sole consideration. Planning authorities are guided by the National Planning Policy Framework to protect and enhance soils more widely. This could include, for example, conserving soil resources during mineral working or construction, not granting permission for peat extraction from new or extended mineral sites, or preventing soil from being adversely affected by pollution. For information on the application of ALC in Wales, please see below.

Agricultural Land Classification: protecting the best and most versatile agricultural land

Further information

Details of the system of grading can be found in: *Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988).

Please note that planning authorities should send all planning related consultations and enquiries to Natural England by e-mail to consultations@naturalengland.org.uk. If it is not possible to consult us electronically then consultations should be sent to the following postal address:

Natural England
Consultation Service
Hornbeam House
Electra Way
Crewe Business Park
CREWE
Cheshire
CW1 6GJ

ALC information for Wales is held by Welsh Government. Detailed information and advice is available on request from Ian Rugg (ian.rugg@wales.gsi.gov.uk) or David Martyn (david.martyn@wales.gsi.gov.uk). If it is not possible to consult us electronically then consultations should be sent to the following postal address:

Welsh Government
Rhodfa Padarn
Llanbadarn Fawr
Aberystwyth
Ceredigion
SY23 3UR

Natural England publications are available to download from the Natural England website: www.naturalengland.org.uk.

For further information contact the Natural England Enquiry Service on 0300 060 0863 or e-mail enquiries@naturalengland.org.uk.

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APPENDIX TK3
UK Food Security Report Summary
(14 January 2025)



News story

UK Food Security Report 2024 published

UK Department for Environment, Food and Rural Affairs has published the UK Food Security Report 2024

From: **Government Chemist** (</government/organisations/government-chemist>)

Published 14 January 2025



The UK Department for Environment, Food and Rural Affairs (Defra) has published the UK Food Security Report 2024. This report sets out an analysis of statistical data relating to food security. This report examines past, current, and future trends relevant to food security, to present the best available understanding of food security at the time of publication; the headlines under the following 5 themes are:

Theme 1: Global Food Availability

Continued stable growth in the production of food, despite geopolitical and climate shocks. The global trading system in food has also been stable. The number of undernourished people around the world is increasing. Climate change, nature loss and water insecurity pose significant risks to the ability

of global food production to meet demand over the longer term. There is weak productivity growth globally which makes this more challenging.

Theme 2: UK Food Supply Sources

The UK's overall balance of trade and production is broadly stable. Extreme weather events continue to have a significant effect on domestic production. The UK continues to be highly dependent on imports to meet consumer demand for fruit, vegetables and seafood. Long term decline in the UK's natural capital is a pressing risk to UK food production.

Theme 3: Food Supply Chain Resilience

Russia's invasion of Ukraine caused a spike in input costs such as energy and fertiliser. Agri-food sector labour shortages continue. While there was a sharp fall in volume of imports of Feed, Food and Drink to the UK in 2021, imports have increased slightly since then and the EU remains the UK's largest external supplier. Single points of failure in food supply chains pose resilience risks. Many food businesses have shown resilience and recovery in response to shocks, but investment levels are not back to levels before the price shock in 2022.

Theme 4: Household Food Security

While a large majority of households in the UK continue to be food secure, there has been a notable decrease in food secure households. There has been a notable rise in inflation both overall and for the category of food and non-alcoholic beverages since the beginning of 2021. Most people do not meet government dietary recommendations, with those from lower-income groups less likely to meet recommendations than those from the highest-income groups. Rates of food insecurity vary greatly by demographics, with a notable difference in levels and experiences between income groups.

Theme 5: Consumer Confidence and Food Safety.

The results of UK consumer surveys indicate that the levels of trust in Food Standards Agency (FSA) and Food Standards Scotland (FSS) have remained relatively high. There has been an increase in consumers reporting concerns (prompted) about food prices since 2021. Laboratory confirmed reports of pathogens that can cause foodborne gastrointestinal disease and the proportional trends in foodborne disease outbreak surveillance data generally remained relatively stable over the period 2019 to 2023, with the exception of the COVID19 pandemic years. Of the businesses inspected, analysis indicates an upward trend in food business hygiene compliance. However, there is still a backlog in the number of businesses awaiting inspection.

Selvarani Elahi, Deputy Government Chemist, served on the Expert Elicitation Group for Theme 5.

Additionally, under 'Sub-theme 2: Food Safety and Authenticity', the Food Authenticity Network is featured as Case Study 1.

Read the full report at: [UK Food Security Report 2024](https://assets.publishing.service.gov.uk/media/6756e300a63e1781efb877a1/United_Kingdom_Food_Security_Report_2024_11dec2024_printable.pdf)
(https://assets.publishing.service.gov.uk/media/6756e300a63e1781efb877a1/United_Kingdom_Food_Security_Report_2024_11dec2024_printable.pdf)

Published 14 January 2025



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APPENDIX TK4

Defra Press Release 6th December 2022

Food supply and food security

[Defra Press Office](#), 6 December 2022 - [Weekly stories](#)



There has been some coverage of calls by the National Farmers Union (NFU) for more government support for farmers to safeguard the nation's food supplies.

We understand that farmers are facing increasing costs as a result of the impacts of the conflict in Ukraine and global economic shocks including the spike in oil and gas prices, and have announced a range of measures throughout the course of the year to help mitigate these challenges and support industry.

The UK's food supply chain remains resilient, with supply from diverse sources guaranteeing a high level of food security.

A Government spokesperson said:

“ The UK has a large and highly resilient food supply chain. Our high degree of food security is built on supply from diverse sources; strong domestic production as well as imports through stable trade routes. The government is in regular contact with the food and farming industries to ensure they are well

prepared for a range of scenarios, and we continue to take all the necessary steps to ensure people across the country have the food they need.”

To support the food and farming industry in the face of these pressures, the government has:

- Brought forward 50% of direct payments earlier this year to help farmers with cashflow
- Delayed proposed changes in the use of urea fertiliser back in March to help farmers manage costs and give them more time to adapt
- Brought forward New slurry storage grants which will help farmers reduce their reliance on artificial fertilisers
- Continued progress of the roll out of the Sustainable Farming Incentive scheme, and over 4000 applications have now been started. This pays farmers for actions, including improving soil health, which will reduce dependence on manufactured fertilisers which are linked to gas prices
- Removed the 25% tariff on US maize imports, which are a key ingredient for animal feed
- Brought in The Energy Bill Relief scheme, meaning businesses will be paying less than half of predicted wholesale energy costs this winter
- Cut fuel duty for petrol and diesel by 5p per litre across the UK until March 2023
- Reduced employer national insurance by increasing the Employment Allowance
- Put the brakes on bill increases by freezing the business rates multiplier - worth £9.3 billion over the next five years.
- Relaxed marketing rules so that farmers who breed turkeys, geese or ducks for their meat have the option to slaughter their flocks early and freeze these products
- Brought in Swifter compensation payments to farmers affected by avian influenza
- And earlier this year we confirmed the release of an extra 10,000 visas under the Seasonal Worker Visa Route, with 2,000 of these going to the poultry sector, meaning in total 40,000 visas are available for seasonal workers in 2022 to help ensure businesses have the workforce they need

The Food and Farming Minister met representatives from the UK egg sector on 6 December to discuss the challenges that the industry is currently facing. This is part of our regular and close engagement with the sector.

[Follow Defra on Twitter](#), and [sign up for email alerts here](#).

Tags: [direct payments](#), [farming](#), [food security](#), [food supply](#), [gas prices](#)

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APPENDIX TK5

Land Use Consultation (January 2025)

Land Use Consultation

January 2025

We are the Department for Environment, Food and Rural Affairs. We are responsible for improving and protecting the environment, growing the green economy, sustaining thriving rural communities and supporting our world-class food, farming and fishing industries.

We work closely with our 33 agencies and arm's length bodies on our ambition to make our air purer, our water cleaner, our land greener and our food more sustainable. Our mission is to restore and enhance the environment for the next generation, and to leave the environment in a better state than we found it.



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This publication is available at www.gov.uk/defra

Any enquiries regarding this publication should be sent to us at:
landuseconsultation@defra.gov.uk

Responding to the consultation

Please respond to this consultation using the Citizen Space consultation hub at Defra
<https://consult.defra.gov.uk/land-use-framework>

For ease of analysis, responses via the Citizen Space platform would be preferred, but alternative options are provided below if required:

By email to: landuseconsultation@defra.gov.uk

In writing to:

Land Use Consultation

Third Floor, Mallard House,

Kings Pool, 1-2 Peasholme Green,

York,

YO1 7PX

Please note, any responses sent by post must have arrived at the above address by the closing date of the consultation (25 April) to be counted. Any responses received after this date will not be analysed. To ensure your response is included in the analysis, please consider responding online via Citizen Space.

Consultation period

This consultation will open on 31 January and close on 25 April 2025

Compliance with the consultation principles

This consultation is being conducted in line with the Consultation Principles set out in the Better Regulation Executive guidance which can be found at:
<https://www.gov.uk/government/publications/consultation-principles-guidance>

If you have any comments or complaints about the consultation process, please address them to:

By e-mail: consultation.coordinator@defra.gov.uk

After the consultation

Information provided in response to this consultation document, including personal information, may be subject to publication or release to other parties or to disclosure in accordance with the access to information regimes such as Freedom of Information Act 2000 (FOIA), Environmental Information Regulations 2004 (EIR) and the Data Protection Act 2018.

If you want information, including personal data, that you provide to be treated as confidential, please say so clearly in writing when you submit your response to the consultation and explain why you need these details to be kept confidential. If we receive a request for disclosure under the FOIA or EIR, we will take full account of your explanation, but due to the law we cannot provide an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as a confidentiality request. Defra is the data controller in respect of any personal data that you provide, and Defra's Personal Information Charter, which gives details of your rights in respect of the handling of your personal data, can be found at:

<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/personal-information-charter>

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Foreword

Our land is our greatest natural asset - the source of food, the bedrock of nature, the support system of the environment on which we all rely. It is the place we live, work and rest. The people who work on and look after the land, and make decisions about how land should be used, have been pivotal in this country's history and are central to its future. Because these decisions are not marginal, the use of our land underpins everything in our economy and our society.

The land can do so much at once. Growing fresh produce and rearing animals, storing carbon and creating habitats for precious wildlife, providing homes and community spaces, siting the infrastructure that supports our society - a single plot can contribute in so many ways. There are increasing opportunities and demands on our land, requiring land use to be more dynamic than ever. Across both rural and urban landscapes, we must maintain food security in a time of global uncertainty, protect communities from the impacts of a warming climate, host growing infrastructure networks and settlements, and make room for healthier natural ecosystems to reverse nature's decline.

That is why this Government is launching a national conversation about land use, to minimise trade-offs and optimise the use of our land.

At a national and local scale, we need better spatial planning. For too long, a haphazard approach has been taken to the way infrastructure is sited or homes are built. In order to grow the economy and meet the challenges of future decades, we need to use our data to make better decisions. This will also bring better lives - supporting homes to be built where there is access to water and clean air, and major infrastructure built where it least disrupts nature.

On the ground, our natural world is under threat, with England now one of the most nature-depleted countries in the world. Much-loved British birds and wildlife are at risk of national extinction, whilst our rivers, lakes and seas have unacceptable levels of pollution. Some of our most treasured landscapes are in poor condition, despite the best efforts of many. Meanwhile the impacts of global warming threaten not just our land but the livelihoods that depend on it.

Farming is already going through change: taking on new models of agricultural practice, adapting food production in a changing climate, and building resilience to increased flooding or other global shocks like changing patterns of pests and disease. I know from conversations with farmers and landowners that they not only understand this need for change, but that they are actively delivering it. They know their land best, and it is right that they lead this transition with clarity about land use change so they can plan their businesses.

We as a Government must support this. That is why we have committed £5 billion to farming in the next two years alone, and alongside this are creating the right conditions and incentives to bring in private sector investment to accelerate the adoption of sustainable farming.

By publishing a Land Use Framework, we will go further by creating a toolkit to support decision making and inform discussion on how we can guarantee our long-term food security, how we can support development and how we can achieve our targets on nature and climate that deliver multiple benefits and support economic growth.

This is not going to tell people what to do with their fields or replace the planning system. What the Framework will do is reflect your feedback from this consultation, set out a direction for England's land use and recognise the challenges that land managers will need us to address so that they can deliver our shared vision.

The Land Use Framework will interact with other foundational strategies we are developing in DEFRA; the Environmental Improvement Plan, a 25-year roadmap for farming, and a food strategy. And across government, the Land Use Framework will support sustainable growth, interacting with the Strategic Spatial Energy Plan as we accelerate to clean power by 2030, and driving our ambition to build 1.5 million new homes. This is critical to the delivery of this Government's missions, and the long-term prosperity of our country.

I am consulting before publishing a Framework to ensure that this work is truly informed by what would make this toolkit most useful, what principles should guide us, and what we need to change to help deliver it. As part of this national conversation, there will be workshops across the country, bringing farmers, conservation groups and planners to the table, to put the insights of those who best understand our landscapes at the centre of our work to develop a Land Use Framework.

Only with your input can we publish a Framework in 2025 that truly speaks for England's land, those who manage it, and those who benefit from it.

Our vision for land use in England

Land in England is changing in response to the climate and biodiversity crises, global shocks, the needs of consumers and businesses, and Government policy. In recent years, farmers have seen some of their most valuable land impacted by increasingly frequent extreme weather events. At the same time, communities have rightfully demanded change to clean up our rivers, lakes and seas.

We want to meet these challenges head on and start a public discussion on how land can deliver our missions for Growth and Clean Energy, boost food security, and meet our statutory climate and nature targets. This Government will be an active partner in the delivery of a fair land use transition which will:

- **Make space for nature recovery, water, and emissions reduction.** England's land use will need to change as we move towards 2050 to help deliver our legally binding targets under the Environment Act and Climate Change Act.
- **Support sustainable and resilient food production.** The food system needs to support farmers and landowners to invest in the long-term viability of their businesses, contribute to food security and increase their resilience to climate change.
- **Deliver new infrastructure and housing.** Decision makers at every level need information and tools to deliver sustainable development, including 1.5 million new homes new energy and water infrastructure, and the relatively small area of land use change it requires. We want to use strategic spatial planning to assess gains and losses against national and regional objectives, moving responsibility for managing land use trade-offs away from individual projects.
- **Fix the foundations for resilient long-term economic growth.** Supporting sustainable economic growth over the coming decades will mean investing in its natural capital foundations and long-term climate resilience.
- **Co-create plans for delivery.** Land use change that improves the overall productivity of land alongside wider social and environmental benefits will only happen with the right skills, data, incentives and structures in place. We want to collaborate with land managers, businesses, and communities to define what these are and our plan to deliver them.

This consultation sets out our analysis of the scale of long-term land use change required and is the start of a conversation about how and where it could be delivered. This conversation will aim to define how we can use England's land to give the best combination of benefits, and how we can support land managers and other decision makers to deliver this.

Purpose of this consultation

Policy decisions that impact how land is used are often far too remote from the lived experience of farmers, developers, planners, and the citizens whose work shapes our places and landscapes. The Devolution White Paper set out our plan to shift power away from Whitehall and into the hands of those who know the land and their communities best. This consultation process will help define what role the Framework will play in this transition. It is not our intention to use the Framework to bind decision makers or prescribe specific land uses in specific places; we want it to inform decisions, not impose them.

A thriving natural environment and stable climate are the foundations of our economy and are essential to food security and profitable farm businesses. Changes in English land use are required to reverse the decline of our natural environment, help absorb greenhouse gases, adapt to the impacts of climate change, and increase the resilience of our food systems, infrastructure, homes and communities.

These foundations will support Government's commitment to build 1.5 million homes and the new infrastructure needed to deliver resilient and sustainable growth and clean energy¹.

Advances in spatial data science, including earth observation data, mean we can now map potential long-term changes in land use more effectively. We want to use the analysis included in our accompanying annex to support discussions on how land is used, and the changes to policy needed to support land managers and communities.

A Land Use Framework will develop and support delivery of a shared vision for English land use². This consultation document will inform the subsequent development of a Land Use Framework in 2025. **Section 1** of this consultation starts with evidence to underpin decisions on land use change³. **Section 2** sets out draft principles for decision making. **Section 3** outlines potential policy levers that could be developed as part of a Land Use Framework such as improving access to data and developing targeted land management incentives. **Section 4** describes the process of co-creation that will inform the Land Use Framework.

¹ Including the actions shaped by the industrial strategy consultation: [Invest 2035: the UK's modern industrial strategy](#) (October 2024)

² Many of the policies in scope of this consultation are devolved. The territorial scope has been limited to England. The UK Government will work closely with the devolved Governments in Scotland, Wales and Northern Ireland to develop the Land Use Framework for England.

³ Details of this evidence, its assumptions and its limitations are provided in the Analytical Annex.

The Framework will be published in 2025. It will include:

1. Principles that Government will apply to policy with land use implications.
2. A description of how policy levers will develop and adapt to support land use change.
3. A release of land use data and analysis to support public and private sector innovation in spatial decision making, and the development of tools to support land managers in practice.

The evidence base that underpins this consultation is a basis for wider reform that includes a Farming Roadmap, a Food Strategy and the review of the Environmental Improvement Plan. It also supports the Government's wider strategic planning agenda, including the Industrial Strategy, long-term housing strategy, New Towns Taskforce, National Integrated Transport Strategy, Ten Year National Infrastructure Strategy and the Strategic Spatial Energy Plan.

These land use challenges are not unique to England. With the other UK nations, we have an opportunity to learn from others and to lead by example in managing the land use challenges that are shared by every country committed to the Paris Agreement on Climate Change and Convention on Biological Diversity. The Land Use Framework will play a critical role in delivery of our domestic and international commitments, including our Carbon Budgets, National Biodiversity Strategies and Action Plans, and Nationally Determined Contribution to international action on climate change.

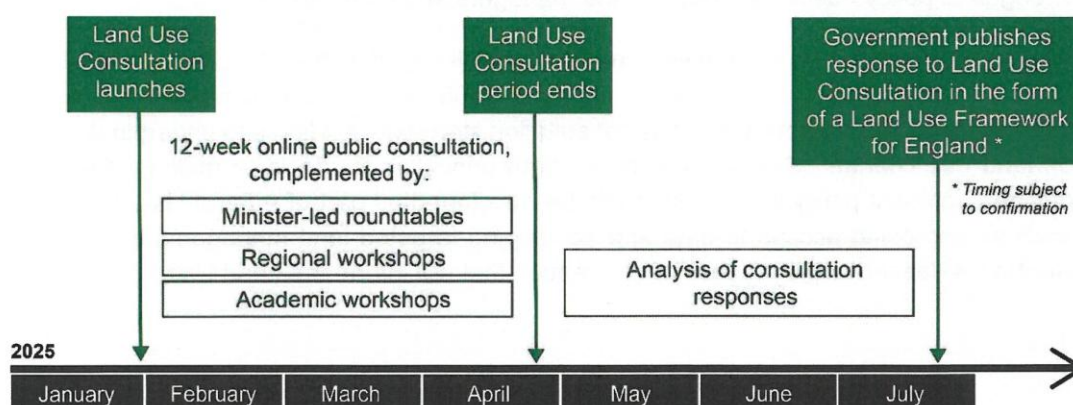


Figure 1: Timeline of key milestones and activities in the Land Use Consultation process

A long-term view of land use change

By land area, England is still a predominantly rural and agricultural country. Of England's total land area, 85% can be classed as rural⁴. This land provides the critical underpinnings of our economy from food and rural housing to clean water and wildlife habitats. 67% of England's land is agricultural, made up of 38% arable land and 29% grassland⁵. Our natural capital generates an annual flow of benefits, including food production, of £37bn⁶ in England alone.

Nevertheless, by population, England is largely urban: in 2020, 83% of people lived in urban areas (settlements of more than 10,000 inhabitants)⁷.

More detail on England's current land uses and the value they provide is set out in the Analytical Annex accompanying this consultation.

⁴ See the Rural-Urban Classification for Output Areas in England (2011, most recent year for which data is available):

https://assets.publishing.service.gov.uk/media/610c08e4d3bf7f044024465a/RUCOA_leaflet_Jan2017.pdf

⁵ This describes Utilised Agricultural Area as a proportion of England's total land area:

<https://www.gov.uk/government/statistics/agricultural-land-use-in-england>.

⁶ 2022 value derived from the ONS publication "UK natural capital accounts 2024":

<https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/uknaturalcapitalaccounts/2024>. Please refer to Section 1.2 of the Analytical Annex for more information on the value of natural capital.

⁷ Statistical Digest of Rural England, April 2024:

https://assets.publishing.service.gov.uk/media/661d3b95ac3dae9a53bd3dd3/16_04_2024_-_1_-_Population.pdf

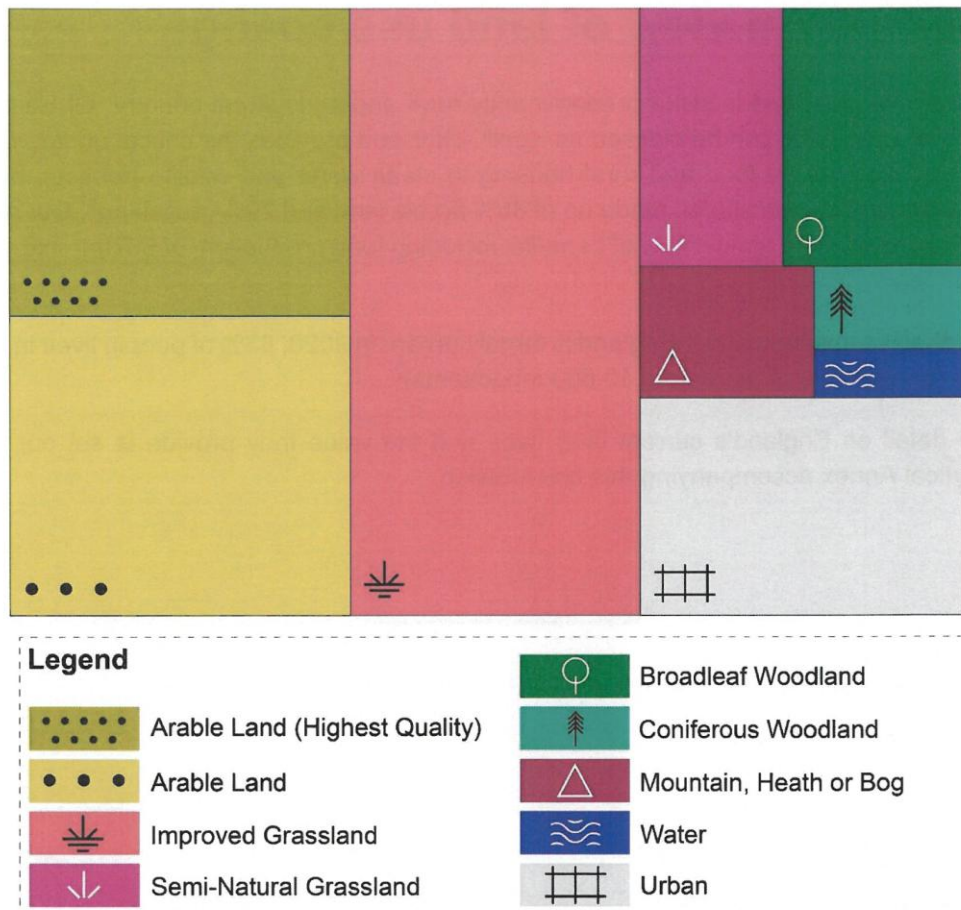
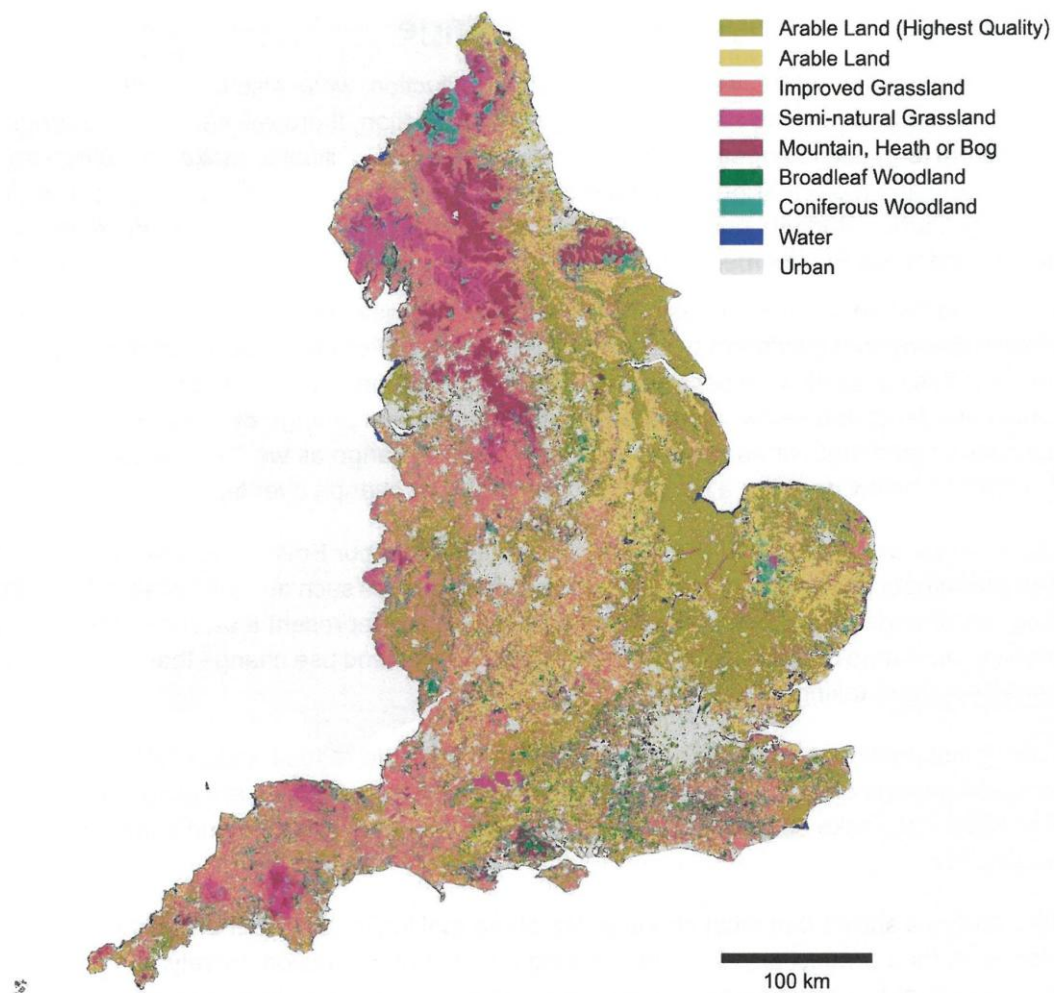


Figure 2: Approximate proportions of England's total land area occupied by different types of land use (derived from UKCEH spatial data, broken down by Agricultural Land Classification grade which assesses land's capacity to produce food).

Arable land is mainly used to produce crops for food and animal feed. Grassland is primarily used for animal grazing and silage, with improved grassland being more intensively managed for agricultural production, and having lower species diversity, than semi-natural grassland. While data is not available for England and the figure is likely to be lower, 85% of the UK's Utilised Agricultural Area (UAA) in 2023, across both arable and grassland, was used for animal feed or animal production. A small proportion of the UK's UAA is used for growing crops for bioenergy.⁸

⁸ JNCC Report No. 307, Guidance on the interpretation of the Biodiversity Broad Habitat Classification (terrestrial and freshwater types), July 2000: <https://data.jncc.gov.uk/data/0b7943ea-2eee-47a9-bd13-76d1d66d471f/JNCC-Report-307-SCAN-WEB.pdf>

Food Security Report 2024: <https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2024/>



Based upon Land Cover Map 2021 © UKCEH 2022. Contains Ordnance Survey data © Crown Copyright 2024, Licence number 100017572.

Figure 3: Land in England today, showing how the use and capability of land varies widely at a range of scales, driven by complex geography and drivers of land use decisions (derived from UKCEH spatial data, broken down by Agricultural Land Classification grade which assesses land's capacity to produce food).

What we mean by land use change

To make space for nature, water, and emissions reduction, while also delivering new infrastructure and housing and maintaining food production, there will need to be a range of different land use changes by 2050. These changes are critical to make agriculture and food production more resilient to climate change. They are also necessary to meet our statutory Carbon Budgets under the Climate Change Act and statutory environmental targets under the Environment Act.

To provide context for the co-design of a Land Use Framework we need a consistent way of categorising these different types of land use change. For the purposes of our analysis, we used five categories⁹ to define types of land management and land use changes. These are described below, alongside the approximate percentage of England's total agricultural land that our analysis shows may need to change as we move towards 2050. The figures below describe a dynamic picture that may change over time.

Our analysis explores how land use decisions could meet our Environment Act and Climate Targets without undermining food production¹⁰ or objectives such as national security¹¹. The land use changes described in Figures 4 and 5 therefore represent a balanced approach to meeting our range of priorities, including several types of land use change that achieve wider benefits without taking land out of food production.

The spatial analysis set out in the Analytical Annex aims to reduce trade-offs by avoiding land use change on our best agricultural land. It shows how landowners and land managers can make decisions that limit the scale of land use change and support profitability.

This analysis shows that most changes are about making land more multifunctional alongside food production, rather than taking land out of production entirely. It also illustrates that the new homes and infrastructure that are needed to deliver our Growth and Clean Energy Superpower Missions are a relatively small driver of land use change.

On the agricultural land not subject to specific land use change, we expect the majority to undertake land management changes (Category 1), such as changes to meet the Environmental Improvement Plan objective of having 60% of soils under sustainable management. Please refer to Table 3 of the Analytical Annex for detailed definitions of categories.

⁹ Please refer to Table 3 in Section 3 of the Analytical Annex for more information on the five categories used to describe types of land management and land use change in our analysis.

¹⁰ The scope of our analysis, including which targets are quantified, is described in the Analytical Annex.

¹¹ For example, we have considered the critical importance of the national security purposes of the Ministry of Defence Estate.

Figure 4: The approximate percentages of England's total agricultural land area that our analysis shows may need to change in use or management by 2050¹².

Category 1 – Land management change Changes in the way the land is farmed, without introducing new habitats or planting trees. It falls outside of the scope of land use change discussed in this document. <i>Examples: Planting cover crops to reduce soil loss, or reducing fertiliser use to prevent water pollution.</i>	Not in scope
Category 2 – Small changes maintaining the same agricultural land use Introducing nature within fields, in margins and / or small portions, providing environmental and climate benefits alongside food production. <i>Examples: Arable field margins, riparian features such as river buffer strips.</i>	1% (50kha)
Category 3.1 – Changes in agricultural land use, for both food and environmental / climate benefits This is mainly about incorporating more trees alongside food production.	4% (370kha)
Category 3.2 – Changes in agricultural land use, mainly for environmental and climate benefits with limited food production. The land is being farmed mainly for other benefits than food. <i>Examples: Creation / restoration of species-rich grassland habitats; responsible management of peat; planting of short rotation coppice.</i>	5% (430kha)
Category 4 - Change away from agricultural land, for environmental and climate benefits. Land use becomes non-agricultural. Land is fully dedicated to delivering environmental and climate benefits. <i>Examples: Restoration and maintenance of peat-forming and peat-dependent habitats; creation of woodland; creation / restoration of coastal and lowland heathland habitats.</i>	9% (760kha)

¹² See Table 3 in the Analytical Annex for a description of the changes to land management (category 1) which are not summarised here.

The Government is committed to maintaining food production. Our assessment is that, based on historical trends of productivity improvement, and supported by new and emerging innovations, the impact of these land use changes on domestic food production will be offset by productivity improvements¹³. We expect that recent trends of increased productivity from agricultural land will continue. Working in partnership, Government will put in place a policy environment to support those changes.

The scale of land use change required to deliver 1.5 million new homes is relatively small: around 30 thousand hectares (0.2%) by the end of the Parliament¹⁴ and around 150 thousand hectares (1.1%) if housebuilding were continued at the same rate to 2050¹⁵. The Land Use Framework will be informed by the additional spatial analysis and public consultation required to determine suitable locations for new homes and infrastructure.

Delivering new infrastructure will also require changes to English land use. These are also relatively small overall; the land area taken by all key utilities across England in 2022, including solar and wind farms, power stations, water works, gas works, and refuse disposal places, covered just 0.2% of land¹⁶. We can build the homes and infrastructure we need while meeting our wider objectives such as food security and environmental targets to 2050. Though small in comparison to wider land uses, the cumulative footprint of infrastructure and housing delivery in the longer term justifies reducing trade-offs between land uses today. This includes continuing to reflect the agricultural potential of land in spatial planning.

Figure 5 shows how the changes outlined in Figure 4 and delivering new homes may change total land uses in England from today, through 2035 to 2050. The Analytical Annex provides more details of the assumptions and uncertainties reflected in this analysis. We will continue to refine this analysis as we improve the underpinning data and hear feedback through this consultation and wider engagement. Our intention is not for any analysis to prescribe changes, only for it to support understanding of how different changes at local and regional levels can add up to outcomes such as food production and nature restoration at the national level.

¹³ See Section 4.5 of the Analytical Annex for more detail on productivity trends.

¹⁴ This estimate assumes the same split of new homes between new build completions, conversions and change of use as for recent years. Details of this calculation and more information on the demand for land for infrastructure, housing and other development are available in section 2.2 of the Analytical Annex.

¹⁵ This figure is based on the expected growth in households to 2050 as a proportion of the existing urban land area and should be understood as an order of magnitude rather than a precise calculation.

¹⁶ 2022 figures: <https://www.gov.uk/government/statistics/land-use-in-england-2022>

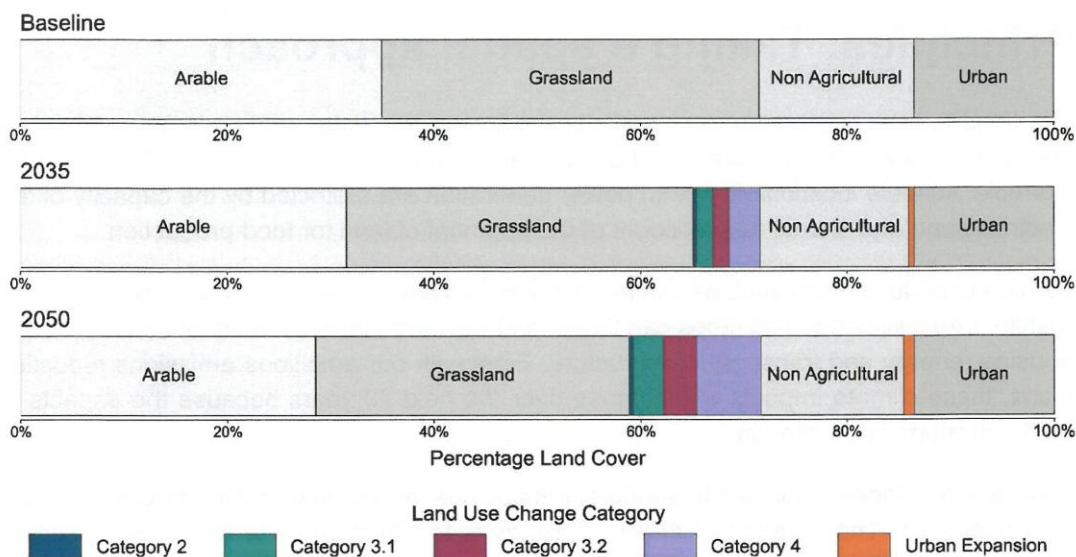


Figure 5: Estimated type and extent of land use changes needed to 2035 and 2050. Categories of land use change are defined in Figure 4 and the Analytical Annex¹⁷.

QUESTION 1: To what extent do you agree or disagree with our assessment of the scale and type of land use change needed, as set out in this consultation and the Analytical Annex?

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / I don't know]

Please explain your response, including your views on the potential scale of change and the type of change needed, including any specific types of change.

¹⁷ Note that the baseline differs slightly from the official statistics. Please refer to Section 3.2 of the Analytical Annex for assumptions and uncertainties.

Principles: Taking a spatial approach

The opportunities to produce food, make space for nature, water, and emissions reduction, and deliver new infrastructure and housing, are different in every part of England. For example, suitable locations for clean power generation are restricted by the capacity of the electricity grid and should take account of the potential of land for food production.

Climate change impacts such as sea levels rising and extreme weather are changing where wildlife, trees, livestock and crops can thrive, and the land that is suitable for construction of housing, energy and transport infrastructure. Even with our ambitious emissions reduction plans, these climate impacts will increase over the next 20 years because the impacts of past emissions are locked in.

We have developed principles to support strategic spatial planning and the targeting of land use incentives. The purpose of these principles is to transform how Government makes policy and the information we provide to decision makers. For the principles to be meaningful they need to be integrated into decision making processes and supported by data, decision support tools and resources. That is why we are seeking your views on the principles themselves and how they could be applied.

1. **Co-design:** Support for participation and leadership at the local and regional scale to develop and align spatial strategies and assess the fairness of changes in land use.
2. **Multifunctional land:** Enable multiple benefits on land, targeted according to opportunity, societal needs (such as the health benefits of co-locating new homes and nature), and environmental pressures (such as reducing pollution).
3. **Playing to the strengths of the land**¹⁸: Support and spatially target land use change to locations where benefits are greater and trade-offs are lower. Give priority to land uses that are more scarce or spatially sensitive (for example grid capacity places restrictions on new renewable generation sites or protecting land that is best suited for food production).
4. **Decisions fit for the long-term:** Take a long-term view of changing land suitability, prioritising resilience (including to the impacts of climate change). This could include planning for new homes that are resilient to climate impacts, such as flooding and overheating.
5. **Responsive by design:** Land use policy, including spatial prioritisation and targeting, needs to be responsive to new data, opportunities and pressures.

¹⁸ Please refer to Section 4 of the Analytical Annex for background evidence to support taking a spatial approach

These principles will be updated after reviewing consultation responses, and applied to future policy on land use, for example, as part of the Food Strategy, Farming Roadmap, Industrial Strategy, long-term housing strategy, National Integrated Transport Strategy, Ten Year National Infrastructure Strategy, the Strategic Spatial Energy Plan, a revised Carbon Budget Delivery Plan, and the review of the Environmental Improvement Plan.

QUESTION 2: Do you agree or disagree with the land use principles proposed?

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / I don't know]

Please provide any reasons for your response including any changes you believe should be made.

QUESTION 3: Beyond Government departments in England, which other decision makers do you think would benefit from applying these principles?

- **Combined and local authorities (including local planning authorities)**
- **Landowners and land managers (including environmental and heritage groups)**
- **Others (please specify)**

Making the best use of land

This Land Use Consultation takes a long-term view of English land use. We know that to achieve this vision we will need to radically improve the access that landowners, land managers and communities have to the resources needed to support long-term and spatial decision making. There are practical delivery challenges and opportunities faced by communities, businesses, developers, landowners and farmers today. This section aims to address these, drawing on our engagement and analysis, as well as insights from a range of previous publications on land use¹⁹. It proposes policy changes to address land use challenges under four themes: aligned incentives, joined-up decisions, accessible and high-quality data, and skills.

These proposals and questions are not intended to be comprehensive, and instead provide the starting point for an open process of policy co-creation.

1. Aligned incentives

Context

Most English land is in private ownership and land ownership in England is highly concentrated. Land management incentives and influences include public payments (for example, to farmers for environmental benefits), cultural and social influences, market signals from the wider food system and economy, private nature markets, guidance and advice, regulation, and tax reliefs. Investors, farmers and other businesses want certainty about how Government will act to align incentives and shape emerging markets to support the food, environment, infrastructure, economic and climate outcomes that the nation needs.

An increasing number of land managers are seeing that Environmental Land Management actions can support their businesses in adapting to more sustainable farming practices, changes in consumer demand, and changing weather conditions driven by climate change. Our Environmental Land Management schemes have helped farmers increase adoption of these. Alongside of which there is growing recognition that a much greater role for private nature markets²⁰ will be required to support businesses towards more sustainable models. Emerging nature markets are already offering additional incentives and Government has a role to play in shaping these emerging markets, including with clear standards, to enable them to scale up rapidly.

¹⁹ These include recent reports by the Royal Society and British Academy, the House of Lords Land Use in England Inquiry, and the Land Use for Net Zero, Nature and People Hub.

²⁰ Nature markets enable private investment in nature through creating units or credits that can be bought and sold. They allow businesses to invest with farmers and other land and coastal managers to enhance the ability of land, freshwater and marine habitats to provide carbon, biodiversity, clean water and other benefits.

Policy levers and enablers

Incentivising changes for long-term food security

The impacts of climate change and nature loss, from extreme weather events to declines in pollinator populations, are a significant risk to food production. We must reduce these risks, as well as supporting our food and farming system to become more resilient. Farming businesses that are able to plan and invest for the long term are the backbone of a resilient farming system and our food security. Farmers are rightfully asking for greater clarity on what is needed from the land. Being transparent on the level of change needed will provide those businesses with more information around which they can plan.

Farmers and land managers are already changing land use and management practices to adapt to more frequent and severe droughts and floods. These decisions are made at the farm level but need the right frameworks, incentives and conditions from Government and the wider food chain. Incentives will need to reflect the mix of land ownership structures, including tenancies, in farming and the wider food chain.

Incentives will also need to reflect the extent to which the benefits of land use change apply to those making the changes, or the wider public. Many land use and management changes for public benefits bring about costs to those managing the land. We want to work with the sector to develop a long-term sustainable plan for how these costs will be met. To achieve the right incentives and conditions, we will work in partnership with farmers to co-create our long-term Farming Roadmap.

Government will put the right incentives in place to support appropriate land use change. The design of these will need to consider the important role of domestic food production in our food security. Alongside land use change, agricultural yields will need to increase on some land. We will also need to ensure that the agricultural potential of land is fully considered in land use decisions taken outside the farming system so that less of our high-quality farmland is taken out of production. A broad range of approaches will be explored in our long-term Farming Roadmap, including proposals to help achieve increased agricultural yields, approaches to increase the uptake of regenerative agriculture²¹ and multifunctional land uses and farming practices.

We are also developing, in partnership with the food sector, a Food Strategy which will bring together all aspects of the food system around four pillars of health, growth, environmental sustainability, and food security. This approach will ensure, alongside land use change, that

²¹ The term “regenerative agriculture” currently does not have a comprehensively described scientific definition, but it is widely acknowledged that regenerative agriculture proceeds from a foundation of promoting soil health. Source: Pettorelli et al. (2024) Prioritising Land Use in the Midst of a Climate and Nature Emergency - Ten Key Messages for Scientists, Civil Society, and Policy Makers. A report from the Zoological Society of London (ZSL) and the British Ecological Society (BES), London, UK

we achieve improved health outcomes, robust food security, growth in the food system, and a thriving natural environment.

QUESTION 4: What are the policies, incentives and other changes that are needed to support decision makers in the agricultural sector to deliver this scale of land use change, while considering the importance of food production?

In the next few decades, global land use will come under increasing pressure. Agricultural production will need to keep pace with the growing demand for food whilst reducing emissions. There are also new pressures such as demand for land for the production of feedstocks for biofuels and other forms of renewable energy.

The nature of global agricultural markets, where changing relative prices can incentivise processors and consumers to substitute one product for another, and farmers to switch land between different crops, means that land use decisions in different countries are interconnected through international trade. For example, if one country takes policy actions that either reduce domestic agricultural production or increase the consumption of agricultural products, then its agricultural imports will increase or exports decrease such that its net agricultural trade position will weaken. This will tend to encourage an expansion in agricultural production in other countries, possibly with significant negative environmental impacts.

The principles are intended to transform policy and incentives for land use change in England, protecting land with the greatest long-term potential for food production. This will help to reduce the risk of displacing food production and any associated environmental impacts abroad. Targeting land use incentives to the right locations will help achieve this and deliver better value for public spending by achieving greater benefits from the land use or management changes that are paid for.

Prioritising where changes should take place does, however, raise important questions of fairness. The more we prioritise food production by spatially targeting incentives, the more that changes may become concentrated in less agriculturally productive landscapes. While this could bring new economic opportunities to these rural communities, over the next 25 years we are likely to see wider social changes as well. We want to assess where these long-term changes are likely to be most significant so that we can co-create a fair and managed transition, and support people to take advantage of emerging opportunities. Our proposed approach to spatial prioritisation of outcomes and the spatial targeting of financial incentives for land use change will be set out in the Farming Roadmap and will take responses to this consultation into account.

QUESTION 5: How could Government support more land managers to implement multifunctional land uses that deliver a wider range of benefits, such as agroforestry systems with trees within pasture or arable fields?

QUESTION 6: What should the Government consider in identifying suitable locations for spatially targeted incentives?

QUESTION 7: What approach(es) could most effectively support land managers and the agricultural sector to steer land use changes to where they can deliver greater potential benefits and lower trade-offs?

QUESTION 8: In addition to promoting multifunctional land uses and spatially targeting land use change incentives, what more could be done by Government or others to reduce the risk that we displace more food production and environmental impacts abroad? Please give details for your answer.

Monitoring land use change or production on agricultural land

Accounting for displaced food production impacts in project appraisals

Protecting the best agricultural land from permanent land use changes

Other (please specify)

Increasing private investment into nature-based solutions

The scale of action needed to deliver our climate and nature objectives means that more private investment in land use change will be needed. We know that healthy ecosystems provide many private as well as public benefits, and the private sector can contribute to protecting and improving natural capital assets.

In addition to existing mechanisms such as Biodiversity Net Gain, the Woodland Carbon Code and the Peatland Code, there is an opportunity to explore additional action that can drive innovation, efficiency, and private investment into nature. We are already taking action. The Planning and Infrastructure Bill will legislate for a Nature Restoration Fund to streamline certain environmental obligations on development and fund strategic nature recovery measures. The Terms of Reference for the independent commission on the water sector regulatory system set out that it will consider how to enable greater use of nature-based solutions in the context of strategic planning for water, where these represent good value for money. We will publish a call for evidence on further opportunities to increase private investment into nature from economic sectors who impact upon or benefit from our shared natural capital.

QUESTION 9: What should Government consider in increasing private investment towards appropriate land use changes?

Making space for nature

The Government is committed to effectively conserving and managing 30% of the UK's land by 2030 (30by30) to support delivery of the Environment Act biodiversity targets²², including those to halt and reverse declines in species abundance. While significant areas of England have potential to meet the 30by30 criteria, driving forward progress on 30by30 requires further action to ensure more land is under effective, long-term management for nature (see section 2 of the Analytical Annex). We are developing a delivery strategy to accelerate progress towards 30by30 both inside and outside Protected Landscapes, and will publish it later this year.

Our Protected Landscapes (National Parks and National Landscapes) cover nearly a quarter of England's land area and include half of our priority habitats and Sites of Special Scientific Interest (SSSIs). They are also working landscapes reflecting generations of farming systems. Protected Landscapes are key to our biodiversity commitments and this Government has committed to make them greener, wilder and more accessible while recognising their culture and heritage. We are developing a package of measures to ensure they are able to deliver the objectives for nature, water, rural housing and climate in the Land Use Framework.

QUESTION 10: What changes are needed to accelerate 30by30 delivery, including by enabling Protected Landscapes to contribute more? Please provide any specific suggestions.

- **Strengthened Protected Landscapes legislation (around governance and regulations or duties on key actors) with a greater focus on nature**
- **Tools: such as greater alignment of existing Defra schemes with the 30by30 criteria²³**
- **Resources: such as funding or guidance for those managing Protected Landscapes for nature**
- **Other (please specify)**

²² Our legally binding Environment Act targets, which include halting the decline in species abundance by 2030, and restoring or creating more than 500,000 hectares of wildlife-rich habitat by 2042. See Annex 1 for more details.

²³ 30by30 on land in England: confirmed criteria and next steps:

<https://www.gov.uk/government/publications/criteria-for-30by30-on-land-in-england/30by30-on-land-in-england-confirmed-criteria-and-next-steps>

Bringing nature closer to communities

The Government will deliver 1.5 million new homes in the right places, supporting our towns and cities to grow. These new homes need to be near to businesses, employment opportunities, and connected to nature and critical infrastructure.

Adapting to climate change and making room for nature will require efforts to introduce connected networks of green infrastructure into our villages, towns and cities. And there is evidence that exposure to green space is associated with improved well-being and health outcomes. New developments are incorporating green infrastructure such as sustainable drainage, and many citizens are choosing to plant trees, grow food or make room for wildlife in their gardens. Areas of public land not suitable for housing or other development²⁴, recreational land²⁵, and areas of the green belt could go further in following these examples and deliver a greater range of benefits like providing shade, connecting green spaces and reducing flood risk.

This would be guided by the Green Infrastructure Framework and might mean remediating derelict brownfield sites for development, reducing areas of impermeable paving, or adding features like orchards or habitats to existing parks and green spaces. The revised National Planning Policy Framework (NPPF)²⁶ has introduced golden rules for major development on released green belt land which require the provision of new, or improvements to existing, green spaces that are accessible to the public.

QUESTION 11: What approaches could cost-effectively support nature and food production in urban landscapes and on land managed for recreation?

The Government recognises the importance of increasing responsible access to the outdoors for people's health and wellbeing and is working to ensure this is safe and appropriate. Part of this includes our manifesto commitments to create nine new national river walks and three new national forests in England, expanding access to the great outdoors.

We intend to support access to green and blue spaces in urban and rural environments, and green routes for active travel to and through these spaces. We will make further announcements on plans to develop policy on access to nature in due course.

²⁴ <https://www.gov.uk/government/news/planning-overhaul-to-reach-15-million-new-homes>

²⁵ Such as sports fields, golf courses, shoots, horse paddocks and racecourses

²⁶ See paragraphs 156c and 157 [National Planning Policy Framework - GOV.UK](#)

Empowering local people to bring community spaces back into community ownership

Community spaces have a significant role to play in developing social networks, encouraging community participation, and promoting civic pride. The Assets of Community Value scheme in England currently provides communities with a route to nominate any building or land which furthers the social wellbeing and interest of the community. Communities then have a right to bid on these assets if their owner puts them up for sale.

Through the English Devolution Bill, we will introduce a strong new 'right to buy' for valued community assets, such as empty shops, pubs and community spaces. Community Right to Buy will help local people acquire valued community spaces if they come up for sale, keeping these assets in the hands of the community. More details will be announced in due course.

2. Joined-up decisions on land use change

Context

The Town and Country Planning System and the Nationally Significant Infrastructure Project (NSIP) planning regimes include the key legislative and policy frameworks that steer the associated land use change from housing, transport, energy generation, and other infrastructure. Improving the data and coordination between environmental planning and development planning will help developers and planners to minimise negative impacts on natural capital. There is, however, little formal guidance, information, or structure to support land managers' decisions on competing land use demands outside the planning system.

Feedback from land managers and developers suggests that their businesses need a more joined-up, strategic approach to land use strategy and planning at a local level, linked to regional and national priorities. This is necessary to avoid siloed land use decision-making and to mitigate the risk of unintended consequences or unanticipated costs. For example, more connected strategies could help guide development decisions towards less biodiverse sites that result in quicker development, and proposals or incentives for nature restoration to land with less potential to produce food.

Policy levers and enablers

Strategic spatial planning for development and infrastructure

Optimising how we use England's land will be essential to delivering the Government's Growth mission and the Clean Energy Superpower mission (including the accelerating to net zero pillar). By strengthening housing targets and allowing development on poor quality land, we will deliver 1.5 million homes over this Parliament and ensure enough houses are

built for the needs of the population over the coming decades. The Government has set out that it will introduce a universal system of strategic planning throughout England in the forms of Spatial Development Strategies (SDS). These SDSs will be produced during this Parliament by combined authorities and partnerships of county councils and unitary authorities for areas where there is no devolved authority. SDSs will set the overarching spatial strategy for local plans.

We need to build new homes and clean energy, water infrastructure and transport infrastructure at scale and at pace. Both new and existing homes and infrastructure will need landscapes that reduce their climate change risks, for example by making more space for water upstream and reducing the impact of floods. Ensuring that plans for delivery consider wider land use outcomes and identifying priority areas for growth will be essential for a pro-growth, pro-infrastructure planning system.

The largest expansion of the power grid since the creation of the National Grid, to connect homes and businesses to new sources of clean energy, is a small but important additional source of demand on land. Delivering 1.5 million homes and the next generation of new towns, supported by enhanced transport and civic infrastructure, will also place demands on land. These will be relatively small overall, but with high and often concentrated impacts.

To align the rapid deployment of energy infrastructure with wider land use objectives, the UK, Scottish and Welsh Governments have jointly commissioned the National Energy System Operator to create a Strategic Spatial Energy Plan (SSEP). Throughout its development, the SSEP will consider wider demands on land and sea, including food production, transport, water supply, nature recovery and fisheries. Outputs of the Land Use Framework, including the principles and analysis underpinning it, will support development of the SSEP. This will ensure that the land with the greatest long-term potential for food production is better protected.

Development and wider land uses are intrinsically linked to the water catchments they impact and depend upon. The Government's Independent Commission on the Water Sector Regulatory System will make recommendations to ensure there is a strategic spatial planning approach to the management of water across sectors of the economy, tackling pollution and managing pressures on the water environment and supply at a catchment, regional and national scale.

QUESTION 12: How can Government ensure that development and infrastructure spatial plans take advantage of potential co-benefits and manage trade-offs?

Understanding how spatial choices impact infrastructural considerations will be key to delivering on all Government missions. Different land uses have varying transport implications, as trip generation and travel patterns will change based on the activity in a particular place, requiring different levels of transport infrastructure. We are committed to delivering a transport system that works better for people across the country and enables growth and access to opportunities. Key to this is adopting a vision-led approach to identifying transport solutions that is better integrated into land use considerations and establishes well-designed, sustainable and popular places.

QUESTION 13: How can local authorities and Government better take account of land use opportunities in transport planning?

Connecting plans and strategies

We want there to be greater local and regional democratic accountability over land-use decision making, including spatial strategies for land at local and regional scales. This includes strengthening connections between national, regional and local plans for land.

We have heard that the range of locally led, land-related plans and strategies has sometimes led to a siloed or confusing picture of land use change. There are opportunities in joining them up and presenting land managers with a more consistent and structured view of what the greatest opportunities for their land are likely to be.

Local Nature Recovery Strategies (LNRSs²⁷) are being developed across the country to prioritise actions and areas for environmental enhancements. LNRSs will also enable Local Plans to better reflect the needs of nature recovery by helping Local Planning Authorities determine which areas should be mapped and safeguarded. To help connect plans at different scales, Government will collate relevant data generated through LNRSs and our biodiversity targets monitoring programme, share it with local leaders, and use it in the evaluation and development of national policy.

QUESTION 14: How can Government support closer coordination across plans and strategies for different sectors and outcomes at the local and regional level?

²⁷ Local Nature Recovery Strategies (LNRSs) are a new system of spatial strategies for nature recovery, currently in preparation across the country. The first LNRSs were published in 2024 with the remainder during 2025. It is required by law that LNRSs will be periodically reviewed and updated, taking stock of what has been delivered over the period so that priorities and actions can be updated as needed. The Land Use Framework will inform and assist this process after the first LNRSs are published.

Planning for climate resilient land use change

Even with our ambitious targets to reduce greenhouse gas emissions, it will still be necessary to adapt to climate change. Long-term, chronic impacts, such as average temperature change and sea level rise, and short-term acute impacts, like heatwaves, flooding and drought, will increasingly affect our communities, infrastructure, health, food security, water quality and nature.

To manage these impacts, we will need to adapt the way we currently manage land. That includes actions such as supporting wildlife to move to more suitable climates, helping farmers and growers to diversify the crops they grow and the farming methods they use, re-naturalising our water bodies and making space for water, and making spatial and long-term decisions about where and how we build homes and infrastructure that reduce risks from flooding.

Understanding climate adaptation plans of owners, managers and developers of land and infrastructure will enable us to support resilient land use change and support delivery of our National Adaptation Programme. We are therefore considering whether the Climate Change Act's Adaptation Reporting Power (ARP)²⁸ could be used to invite or require more organisations and major landowners to report in this process.

QUESTION 15: Would including additional major landowners and land managers in the Adaptation Reporting Power process (see above) support adaptation knowledge sharing? Please give any reasons or alternative suggestions

[Yes / No / I don't know]

²⁸ For details, see Chapter 8 of *The Third National Adaptation Programme (NAP3) and the Fourth Strategy for Climate Adaptation Reporting*, available at https://assets.publishing.service.gov.uk/media/64ba74102059dc00125d27a7/The_Third_National_Adaptation_Programme.pdf

QUESTION 16: Below is a list of activities the Government could implement to support landowners, land managers, and communities to understand and prepare for the impacts of climate change. Please select the activities you think should be prioritised and give any reasons for your answer, or specific approaches you would like to see.

- **Providing better information on local climate impacts to inform local decision making and strategies** (for example, translating UK Climate Projections²⁹ into what these mean in terms of on-the-ground impacts on farming, buildings, communities and nature)
- **Providing improved tools and guidance for turning climate information into tangible actions** (for example, how to produce an adaptation plan for different sectors)
- **Developing and sharing clearer objectives and resilience standards** (for example, a clear picture and standards of good practice for each sector under a 2°C climate scenario³⁰)
- **Supporting the right actions in the right places in a changing climate** (for example, prioritising incentives for sustainable land uses where they will be most resilient to climate change)
- **Other (please specify)**

3. Accessible and high-quality data

Context

There is a wealth of data available on the natural capital of England's land, but it is sometimes inaccessible or unsuitable for practical use. Research into land's potential for different purposes can rarely be applied at the field or site level.

Consistent sharing and use of non-sensitive data and evidence is a key priority to support effective land use decisions. This will mean:

- improving the quality of data used at the field, site or street scale,
- making it more accessible, and
- enabling the tools required to better integrate it into decision making.

²⁹ Met Office UK Climate Projections: <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp>

³⁰ The climate changes we will experience if there is 2°C of global average temperature increase above pre-industrial baselines by 2100.

Policy levers and enablers

Improving land use data

The geospatial data that exists for England is spread across a wide range of classifications, standards, metrics, and data languages. The Department for Science, Technology and Innovation's Land Use Data Improvement Project is a project with Ordnance Survey to assess spatial data for cross-cutting strategic land use policy priorities and test ways to improve interoperability for spatial data. Defra's Natural Capital and Ecosystem Assessment (NCEA) programme is improving access to high quality, interoperable data by conducting a comprehensive baseline survey of England's natural capital assets. This will be available under Open Government Licence³¹. We want to understand the key opportunities, from users of this data and those working with spatial data in the private sector, to make data more accessible to decision makers.

QUESTION 17: What changes to how Government's spatial data is presented or shared could increase its value in decision making and make it more accessible?

- **Updating existing Government tools, apps, portals or websites**
- **Changes to support use through private sector tools, apps or websites**
- **Bringing data from different sectors together into common portals or maps**
- **Increasing consistency across spatial and land datasets**
- **More explanation or support for using existing tools, apps or websites**
- **Greater use of geospatial indicators such as Unique Property Reference Numbers (UPRNs) and INSPIRE IDs to allow data to be more easily displayed on a map**
- **Other (please specify)**

QUESTION 18: What improvements could be made to how spatial data is captured, managed, or used to support land use decisions in the following sectors? Please give any reasons for your answer or specific suggestions.

- **Development and planning: such as environmental survey data**
- **Farming: such as supply chain data and carbon or nature baseline measurements**
- **Environment and forestry: such as local and volunteer-collected environmental records**
- **Recreation and access: such as accessible land and route data**
- **Government-published land and agricultural statistics**

³¹ <https://defraenvironment.blog.gov.uk/2024/03/28/mapping-our-natural-assets-the-natural-capital-and-ecosystem-assessment-programme/>

Land use data's interaction with other datasets

Interactions between different datasets can also generate new insights for decision makers. Our ability to combine a broad range of datasets and apply the latest advances in spatial data science and analysis is critical to the Ten Year National Energy Plan, Strategic Spatial Energy Plan, and the delivery of our target for new homes. Government is developing a Connectivity Tool combining transport and land use data to generate a national measure of connectivity for any location in England and Wales. This Connectivity score measures people's ability to get where they want to go – using walking, cycling and public transport to reach jobs, shops and essential services. It also allows users to input new public transport routes and gauge the effect these would have on an area's connectivity.

Understanding land's capability

For food production to be properly valued in land use decisions, we need to know where the land with the greatest potential for food production is. The Agricultural Land Classification (ALC) system provides a valuable tool for assessing the suitability of land for agricultural use, particularly in development planning decisions. However, the ALC maps are outdated, not at a scale suitable for the assessment of individual fields or sites and not suited to changing land suitability as a result of climate change. To ensure that the ALC system supports effective land use planning decisions, Government is considering:

- Updating the ALC system, including the underlying data and methodologies, to ensure that land quality data is accurate and comprehensive.
- Enhancing the availability and accessibility of ALC data, including through improved mapping and databases.
- Improving guidance on ALC surveys and the use of ALC grades in local planning policies.

QUESTION 19: What improvements are needed to the quality, availability and accessibility of ALC data to support effective land use decisions?

Reducing data costs where it benefits the public or economy

The public sector holds and maintains many authoritative datasets. Some of the data produced is freely available, and some incurs a cost to users. For example:

- HM Land Registry keeps the definitive record of land ownership in England and Wales but charges fees for access to certain information.
- Ordnance Survey provide vital data sources to inform land use decisions and guide recreational users, but some data sets incur a cost to commercial users above a certain transactional threshold.

We want to move towards a system where data is more widely accessible for the public benefit, whilst considering these organisations' current operational and funding models.

For HM Land Registry, we want to do this by making more data free to access, with plans to change the structure of their fees. This includes reviewing whether they are aligned with the Government's strategic ambitions, how they can be made less complex and fairer for customers, and lower barriers to accessing data. These proposals will explore options to increase transparency of land and property data to support innovation and enable citizen participation in co-design of land use policy.

QUESTION 20: Which sources of spatial data should Government consider making free or easier to access, including via open licensing, to increase their potential benefit?

4. The right skills in the right places

Context

A fair land use transition that underpins long-term economic growth cannot be delivered without a secure, skilled workforce. We have heard through workshops across England that communities in the regions with significant potential economic opportunities through land use change often lack access to the skills and resources that would be needed to deliver it. This risks missing opportunities for economic growth, addressing regional inequalities and delivering nature recovery and climate change policies.

Policy levers and enablers

Supporting land managers with new skills for changing land uses

Land management encompasses a wide range of skills, from farming and ecology to helicopter piloting for peat restoration projects. Defra will engage with skills organisations, including Skills England, to ensure a common understanding of the scale and pace of change required.

Defra will continue to work in partnerships with established industry providers to upskill and certify farming advice. A new professional body, The Institute for Agriculture and Horticulture (TIAH), is reducing fragmentation in the existing learning landscape, driving greater skills uptake.

Consistency will also be needed across the farming advice sector over land use change and productivity. We want to enable the alignment of farm plans with local and national priorities and will consider how to achieve this through trusted advisors, guidance and services.

QUESTION 21: What gaps in land management capacity or skills do you anticipate as part of the land use transition? Please include any suggestions to address these gaps.

- **Development and planning**
- **Farming**
- **Environment and forestry**
- **Recreation and access**
- **Other (please specify)**

Accelerating sharing of best practice and evidence

Defra is working alongside the Agriculture and Horticulture Development Board (AHDB), research institutes and the new UK Agri-Tech Centre to accelerate adoption of new technologies and land management practices by sharing knowledge and best practice.

The two-way knowledge transfer between the research community and practitioners is invaluable, for example in the development of best practice around regenerative farming in a local context. There is, however, a perception that the skills, resources and evidence base are lagging behind the findings of innovative farmers and land managers. There is, therefore, an opportunity to ensure that all farmers and land managers can benefit from the skills, resources, innovation and technology best practice provided through academia, industry leaders and Government.

QUESTION 22: How could the sharing of best practice in innovative land use practices and management be improved?

Sharing lessons from nature restoration and climate adaptation practice

One way in which we will look to test, trial or seek feedback on practical approaches is through convening a new group of major public, private and third sector landowners in England. This group, working with Defra, will support delivery of the terrestrial Environment Act targets and related nature recovery, such as 30by30, through action on their estates³². One of the roles of this group will be to consider how reporting on climate mitigation and adaptation can help share good practice.

³² This will include producing land management plans for their estates; piloting and testing approaches to land use management, change, or investment; reporting and sharing best practice on progress; and will include support and like-minded action from Defra and wider government departments.

Co-creation and engagement on a Land Use Framework: next steps

This consultation and the Land Use Framework that will follow will be the start of a conversation about how we use land. This section describes how the Government will support this conversation with those delivering, or affected by, land use change, including communities, businesses, developers, landowners and farmers.

Our plan for policy co-creation

We want to understand what our proposed principles mean for your area, and how we can improve them. We also want to involve you in developing the policy levers that will enable a fair land use transition.

We will do that by running workshops in six different regions in England. The workshops will run during the 12 weeks of consultation, in February and March. We will also run Minister-led roundtables with key stakeholder groups. The insights and feedback we gather through these events will feed into both the Land Use Framework and the farming system roadmap.

The Land Use Framework to be published in 2025 will take account of the combined contributions from the online consultation, workshops and roundtables. We want to continue the conversation even after the Land Use Framework is published and are considering options for how the Framework could be reviewed or updated over time. This would allow new information such as progress against targets, updated analysis and new agricultural innovation into account. In Scotland, a Land Use Strategy is produced every five years.

QUESTION 23: Should a Land Use Framework for England be updated periodically, and if so, how frequently should this occur?

- **Yes, every 5 years**
- **Yes, every 3 years**
- **Yes, another frequency or approach. Please provide details.**
- **No**
- **I don't know**

Making Government effective in policy co-creation

For this process to be meaningful, we know that Government will need to speak with one voice on land use and clarify how its different policy objectives interact spatially. Implementing the principles in this consultation (page 18) would support this, but broader changes to how the Government coordinates land-related policies across departments may also be required. Government will consider how best to co-ordinate and provide:

- A strategic oversight function to ensure the right information and policy is in place to enable delivery against a long-term land use vision;
- A cross-governmental spatial analysis function to produce evidence-based advice on strategic implications across different demands on land;
- Processes to embed land use considerations in strategic Government decisions;
- Open policy-making processes in collaboration with research organisations.

QUESTION 24: To what extent do you agree or disagree with the proposed areas above? Please include comments or suggestions with your answer.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / I don't know]



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