

Environmental Statement – Volume 2: Appendices

Environmental Statement: Part 5 Regulation 18 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

3MW solar array and ancillary development

Land north of the A303, Chicklade, Wiltshire, England, SP3 5SS

Date: January 2026 | DKR Ref: 02482

Author: Jonny Rankin MRTPI PISEP



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1. Appendix 1: EIA Scoping

Appendix 1.1 – EIA Scoping correspondence

Scoping Report

Request for a formal Scoping Opinion from the LPA under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 – **3MW solar array and ancillary development**

Land north of the A303, Chicklade, Wiltshire, England, SP3 5SS

Date: December 2025 | DKR Ref: 02482

Author: Jonny Rankin MRTPI PISEP



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1. Introduction

- 1.1. DKR Rural Planning (DKR) have been instructed by our client to submit this Scoping Report as part of an Environmental Impact Assessment (EIA) Scoping request to Wiltshire Council as Local Planning Authority (LPA) for a 3MW solar array and ancillary development, on land north of the A303, Chicklade, Wiltshire, England, SP3 5SS (the Site).
- 1.2. The purpose of this Scoping Report is to request a formal Scoping Opinion from the LPA under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017¹ (EIA Regs).
- 1.3. The following drawings prepared by the Applicant are also submitted for the LPA's information:
- Site Location Plan – drawing number ENV00267-05-SiteLocation Rev. A;
 - Planning Layout – drawing number ENV00267-02-PlanningLayout Rev. A;
 - Array Section Views – drawing number ENV00267-03-ArraySections Rev. A; and
 - Fence Section Views – drawing number ENV00267-04-FenceSections Rev. A.

¹ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

2. Proposed Development

2.1. The proposal is to erect a 3MW solar array and ancillary development consisting of:

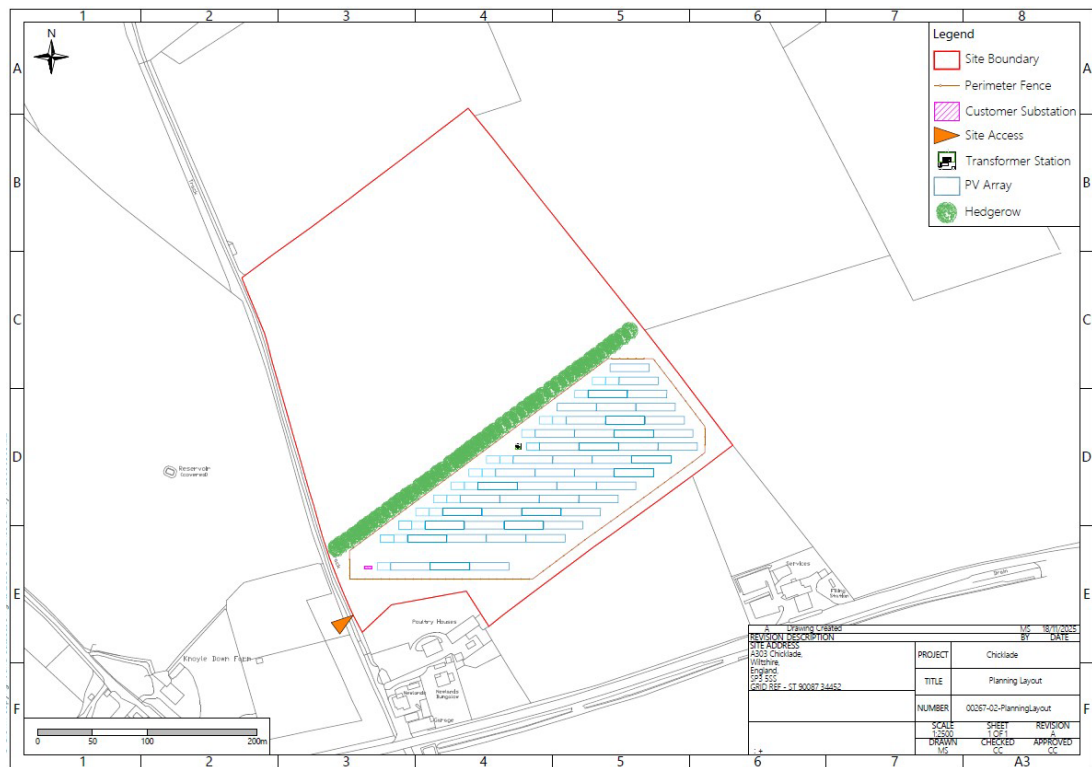
- Frame mounted photovoltaic panels;
- Transformer station,
- Substation;
- Permitter fence; and
- Proposed hedgerow planting.

2.2. An 11kV power line crosses the southern portion of the Site, and another runs parallel to the western boundary, allowing for ready connection to the National Grid, as shown at **Figure 2** below:



Figure 2 - Proximate power lines

2.3. The proposed layout is shown at **Figure 3** below:



3. The Need for Development

International

- 3.1. The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change, the Sixth Assessment Report of the IPCC working group has reported that:

Global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered. Global warming of 1.5 °C and 2 °C will be exceeded during the 21st century unless deep reductions in CO₂ and other greenhouse gas emissions occur in the coming decades².

- 3.2. And:

From a physical science perspective, limiting human-induced global warming to a specific level requires limiting cumulative CO₂ emissions, reaching at least net zero CO₂ emissions, along with strong reductions in other greenhouse gas emissions. Strong, rapid and sustained reductions in CH₄ emissions would also limit the warming effect resulting from declining aerosol pollution and would improve air quality.

The United Nations confirms “Every fraction of a degree of warming matters. With every additional increment of global warming, changes in extremes and risks become larger³” and:

Exceeding 1.5 °C could also trigger multiple climate tipping points — such as breakdowns of major ocean circulation systems, abrupt thawing of boreal permafrost, and collapse of tropical coral reef systems — with abrupt, irreversible, and dangerous impacts for humanity⁴.

The IPCC have identified the reduction of greenhouse gases and reduction of reliance on fossil fuels the route to addressing climate impacts:

Many climate impacts, especially sea-level rise from ice sheets, disappearance of mountain glaciers, and ocean acidification, are essentially permanent for many generations to come and will take centuries to thousands of years to restore to even today’s conditions. To minimize losses and damages, it is crucial to minimize the magnitude and duration of temporarily exceeding 1.5 °C by urgently and significantly reducing greenhouse gas emissions and phasing out fossil fuels⁵.

² [IPCC AR6 Working Group 1: Summary for Policymakers | Climate Change 2021: The Physical Science Basis](#)

³ [1.5°C: what it means and why it matters | United Nations](#)

⁴ [Exceeding 1.5°C global warming could trigger multiple climate tipping points | Science](#)

⁵ [Overshooting 1.5°C is fast becoming inevitable. Minimising the magnitude and duration of overshoot is essential – 10insightsclimate](#)

National

- 3.3. Renewable energy projects such as this proposed solar array support the green economy, contributing some 3.8%⁶ to the UK economy, the low carbon and renewable energy economy generating £41.2 billion in the UK, during the year 2020 alone⁷.
- 3.4. It also supports agricultural diversification, helping UK farmers to balance the ever-complex issues of food production, international price competition, increasing animal welfare & environmental standards and workforce shortages at all levels.
- 3.5. The proposed solar array will have an approximate capacity of 3MW, creating enough clean, renewable energy to power approximately 2,000 homes per annum.
- 3.6. The solar array would avoid 1,200 tonnes of CO₂ being generated per annum from fossil-fuel based energy generation, the equivalent of taking 800 cars off the road each year.
- 3.7. The British Energy Security Strategy (BESS)⁸ published in April 2022 sets out how the UK intends to secure clean and affordable energy for the 'long-term'. Realising the strategy requires 70GW of solar generation capacity by 2035. This is a significant increase from the 13.7GW of solar as of February 2022.
- 3.8. Over the five-year period up to the publishing of the BESS, the UK increased its solar capacity by only 1.8GW, highlighting the extraordinary need for a significant increase in the deployment of decentralised solar energy schemes of the proposed Development's scale if the BESS targets are to be met. The BESS offers clear support for solar development that is co-located with other functions to maximise the efficiency of land use – this includes dual solar and agricultural land use.
- 3.9. The Energy Security Bill now known as the 'Energy Bill', published in July 2022, builds upon the British Energy Security Strategy to invest in homegrown energy and maintain the diversity and resilience of the UK's energy supply. The Bill establishes the need to accelerate the growth of low-carbon technologies.
- 3.10. As part of 'Energy Security Day', in March 2023 the Government released a suite of documents mapping out their proposals to strengthen energy security and independence as part of the UK's mission to achieve net zero by 2050 entitled Powering Up Britain: Net Zero Growth Plan (updated 04th April 2023)⁹.
- 3.11. The plans strongly recognise the importance of solar deployment at all scales in the power sector, achieving UK energy security and delivering net zero more widely. The Government's commitment to quintuple solar generation to 70GW by 2035 is re-stated and supported through a 'solar taskforce', designed to further enable the delivery of the solar target and publish a solar roadmap in 2024.

⁶ [Energy & Climate Intelligence Unit | The UK's net zero economy](#)

⁷ [Low carbon and renewable energy economy, UK – Office for National Statistics](#)

⁸ [British energy security strategy – GOV.UK](#)

⁹ [Powering Up Britain: Net Zero Growth Plan – GOV.UK](#)

- 3.12. Following earlier Governments, the current Government have made Net Zero and renewable energy a stated priority since coming into office. With the Secretary of State for Energy Security and Net Zero, stating on 17th September 2024¹⁰:

“British-based renewable energy is the cheapest and fastest way to reduce vulnerability to volatile global fossil fuel markets.”

- 3.13. The Labour Party Manifesto (2024) includes the stated aim to ‘triple solar power’ by 2030 making ‘Britain a Clean Energy Superpower’¹¹.

- 3.14. The Government have set out how they will create the Clean Energy Superpower in the Clean Power 2030 Action Plan: A new era of clean electricity (UK Government December 2024)¹² including delivery of 45-47 GW of solar power.

- 3.15. The Solar Roadmap: United Kingdom Powered by Solar (Department for Energy Security and Net Zero June 2025)¹³ details how Government will triple solar power on the way to making Britain a Clean Energy Superpower. The Solar Roadmap includes the following points:

“Ground-mounted solar is one of our cheapest electricity sources to build and operate at scale, with costs falling by around 50% since 2016, enabling the supply of low-cost power directly to the grid.”

And:

“The deployment of solar also boosts the UK’s energy security, through diversifying the energy mix and reducing exposure to international fossil fuel markets.”

Local

- 3.16. At its meeting held on 26 February 2019 Full Council resolved to acknowledge that 'there is a climate emergency and to seek to make the county of Wiltshire carbon neutral by 2030'. Cabinet subsequently committed to make the council carbon neutral by 2030¹⁴.
- 3.17. The pledge relates to the council's carbon emissions (or 'carbon footprint') that are within its direct control, i.e. those from its operations and buildings¹⁵. As well as support for private enterprise supporting de-carbonisation, such as the Applicant.

¹⁰ <https://www.gov.uk/government/speeches/energy-uk-conference-2024-keynote-speech-by-by-ed-miliband>

¹¹ <https://labour.org.uk/wp-content/uploads/2024/06/Labour-Party-manifesto-2024.pdf>

¹² <https://www.gov.uk/government/publications/clean-power-2030-action-plan>

¹³ <https://www.gov.uk/government/publications/solar-roadmap>

¹⁴ [Council continues commitment to tackling the climate emergency – Wiltshire Council](#)

¹⁵ [Towards carbon neutral: Our overall challenge – Wiltshire Council](#)

4. Environmental Impact Assessment

The Purpose of Environmental Impact Assessment

4.1. Environmental Impact Assessment (EIA) is a process for ensuring that the likely significant effects (positive or negative) of a new development on its immediate and surrounding environment are fully identified and taken into account before that development is allowed to proceed.

4.2. The Department for Levelling Up, Housing and Communities' (DLUHC) Planning Practice Guidance¹⁶ states that the purpose of EIA is:

"... to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process. The regulations set out a procedure for identifying those projects which should be subject to an Environmental Impact Assessment, and for assessing, consulting and coming to a decision on those projects which are likely to have significant environmental effects". Paragraph: 002 Reference ID: 4-002-20140306.

Scoping Context

4.3. The proposed development falls within category 3 (a) of Schedule 2 of the EIA Regulations¹⁷, applicable to any 'Industrial installations for the production of electricity, steam and hot water' where 'The area of the development exceeds 0.5 hectare'. As set out at **Section 1** above, the red line boundary for the application extends to 12 hectares. With the proposed solar array taking up 3.4 hectares, which is in excess of the 0.5 hectare threshold given at Schedule 2.

4.4. To assist with the consideration of Schedule 2 development the Department for Levelling Up, Housing and Communities have published the Indicative Screening thresholds table¹⁸, the 'indicative criteria and threshold' is "Thermal output of more than 50 MW" which is not relevant to solar PV, therefore there is no given indicative threshold, in effect lowering the bar. The table also provides the following (bold added for emphasis) "Level of emissions to air, arrangements for the transport of fuel and any **visual impact**".

4.5. Schedule 3 of the EIA Regs provides 'Selection Criteria For Screening Schedule 2 Development', inclusive of 2.— (1):

The environmental sensitivity of geographical areas likely to be affected by development must be considered, with particular regard, to—

(c)the absorption capacity of the natural environment, paying particular attention to the following areas—

*(viii) **landscapes** and sites of historical, cultural or archaeological significance.*

¹⁶ [Environmental Impact Assessment - GOV.UK](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/612812/Environmental_Impact_Assessment_-_GOV.UK.pdf)

¹⁷ <https://www.legislation.gov.uk/uksi/2017/571/schedule/2>

¹⁸ [eia-thresholds-table.pdf](https://www.legislation.gov.uk/uksi/2017/571/schedule/2/paragraph/1/attachment/1)

- 4.6. Schedule 2 developments are only 'EIA development' where they have the potential to give rise to likely significant effects on the environment by factors such as their nature, size and location, that is worthy of further assessment.
- 4.7. Accounting for the Schedule 2 thresholds considered above, the scale of the proposed development and its environmental setting; within the Cranborne Chase National Landscape, it is considered that EIA is applicable in this instance.
- 4.8. As such, the environmental assessment process has commenced with the EIA scoping stage.
- 4.9. The main stages of the EIA, culminating in the compilation of a full ES and associated technical appendices, are as follows:
- Scoping report issued to Wiltshire Council as LPA and the statutory consultees for comment and to seek agreement on the coverage of the EIA, proposed assessment methodologies and ES structure, by way of a formal Scoping Opinion;
 - Ongoing liaison with relevant consultees and agencies;
 - Completion of desk studies and surveys to establish the environmental baseline for different topics; reviewing and updating previous assessments where undertaken;
 - Ongoing iteration of the design in light of the EIA findings, consultation responses and inclusion of inherent 'design mitigation' measures;
 - Finalise Development Specification;
 - Final assessment of the proposed development and determination of impact significance, mitigation and residual impacts; and
 - Submission of ES with planning application.

Scoping Process

- 4.10. Determining the scope of the component technical assessments is a key part of the EIA process. The scoping process identifies the potential for significant environmental effects to occur (prior to mitigation) as a result of the proposed development and the methods that will be used to assess the environmental effects. It also identifies the aspects of the environment (the 'topics') that should be scoped out from the assessment where it is unlikely there would be significant effects on the environment.
- 4.11. While scoping is not a statutory requirement under the 2017 EIA Regulations, the preparation of a scoping report is considered best practice as it identifies, at an early stage, the key issues to be addressed in the ES.
- 4.12. **Table 1** below details the locations of where the specific information required for inclusion within the scoping report is contained within this document, in accordance with Regulation 15(2)(a)¹⁹ and otherwise offered by the Applicant:

¹⁹ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

Information	Location in this Scoping Report
A plan sufficient to identify the land	Figure 1 of this report
a brief description of the nature and purpose of the development, including its location and technical capacity	Section 2 of this report
an explanation of the likely significant effects of the development on the environment	Sections 5 and 6 of this report
such other information or representations as the person making the request may wish to provide or make.	Sections 5 and 6 of this report
The proposed approach to the EIA and an appraisal of the key environmental issues to be covered in the EIA (i.e. “scoped in”) and the issues not requiring further consideration (i.e. “scoped out”) in the context of the key legislative and policy documents and Part 1 of Schedule 4 of the EIA Regulations 2017 as is reasonably required to assess the likely significant environmental effects of the development.	Section 6 of this report
An outline of the scope and assessment methodology (including the significance criteria to be adopted) for assessing the likely significant environmental effects to be employed for each respective discipline to be reported in the ES.	Section 6 of this report
The proposed structure and format of the ES.	Section 7 of this report

Table 1 - Location of Information for Compliance with Regulation 15(2) of the EIA Regs

- 4.13. Scoping is an important, though optional, exercise undertaken to focus the EIA and resultant ES on likely significant environmental effects only and to avoid the unnecessarily complicated examination of minor (insignificant) issues, which are appropriately covered in the planning application. In particular, **environmental statements should not be scoped so widely as to become unnecessarily long and cumbersome** and, as such, less relevant and less useful for their intended purpose, i.e. to inform the decision makers of the main and **likely significant environmental effects** of proposed development, accounting for availability and effectiveness of mitigation and enhancement measures.

- 4.14. This matter is addressed by the Government's Planning Practice Guidance (PPG) on EIA²⁰ (bold added for emphasis):

*"Whilst every Environmental Statement should provide a full factual description of the development, **the emphasis should be on the "main" or "significant" environmental effects to which a development is likely to give rise.** The Environmental Statement should be proportionate and **not be any longer than is necessary to assess properly those effects.** Where, for example, only one environmental factor is likely to be significantly affected, the assessment should focus on that issue only.* Impacts which have little or no significance for the particular development in question will need only very brief treatment to indicate that their possible relevance has been considered". Paragraph: 035 Reference ID: 4-035-20170728

- 4.15. Scoping is an ongoing process, with formal consultation undertaken by the local authority with the statutory bodies (e.g. Natural England, Historic England, Environment Agency, Highways Authority, National Landscape Officer etc.) regarding the proposed technical, geographic and spatial scope of the EIA upon receipt of the scoping request. The local authority should then issue their Scoping Opinion at the end of the five-week statutory period.

²⁰ [Environmental Impact Assessment - GOV.UK](https://www.gov.uk/government/publications/environmental-impact-assessment)

5. Summary of the Existing Environmental Conditions, Surrounding and Potentially Sensitive Receptors

- 5.1. The proposed solar array is sited on an arable field, taking up 3.4 hectares of the 12 hectare field unit. As shown at **Figure 6** below, the Site is classified Grade 3 under the Natural England published Agricultural Land Classification Map South West Region²¹. Grade 3 Agricultural Land is considered 'Good to Moderate' and as can be seen at **Figure 7**, this is the most abundant Grade of Agricultural Land in the South West Region:



Figure 6 - Agricultural Land Classification (Site circled red)

²¹ [Agricultural Land Classification Map South West Region - ALC006](#)

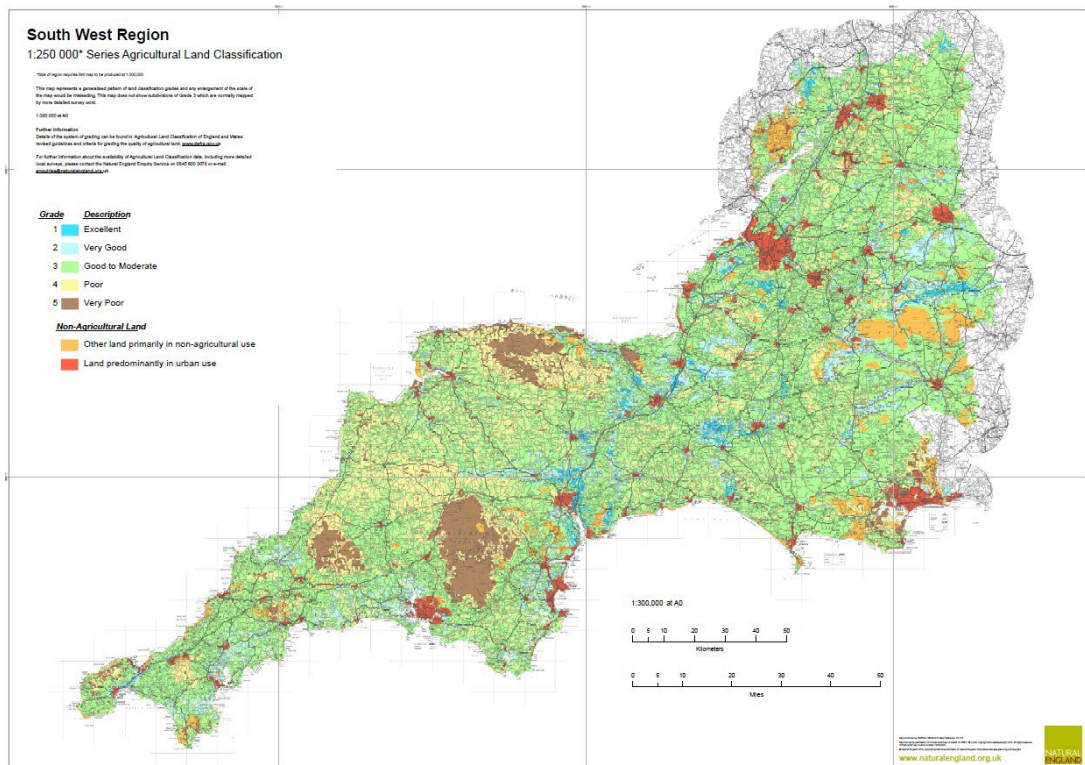


Figure 7 - Agricultural Land Classification Map South West Region

- 5.2. Siting the proposed Solar Array on just 3.4 hectares of the field unit maintains the remaining 8.6 hectares in full agricultural use, and as can be seen at **Figure 7**, above, Grade 3 land is an abundant resource.
- 5.3. The closest Listed Building is the Grade II Listed Chicklade House approximately 800m to the east of Site, the Grade II Listed Church of All Saints is a little further east, approximately 870m away from the Site. The next closest heritage asset is the Bowl barrow a Scheduled Monument, approximately 890m to the south – west. The heritage assets, in relation to the Site are shown at **Figure 8** below:

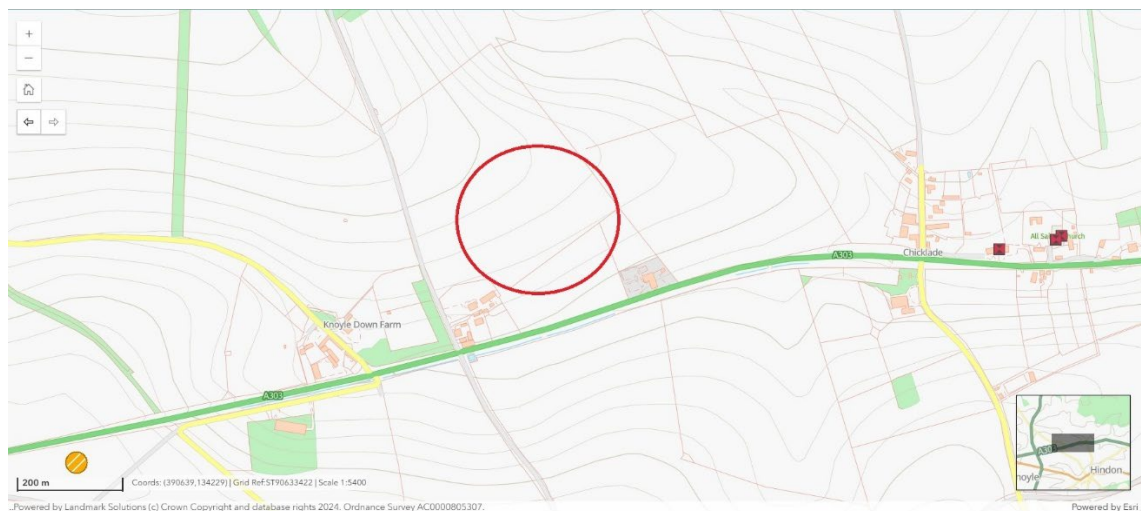


Figure 8 - Proximate Heritage Assets



- 5.6. The proposed Solar Array does not appear to meet any of the listed criteria for Impact Risk Zones for Sites of Special Scientific Interest²⁴, Natural England will be consulted as part of the Scoping process in any event.
- 5.7. The Site is within the Cranborne Chase & West Wiltshire Downs National Landscape. The Wiltshire Council Renewable Energy Study Landscape Sensitivity Assessment (LUC March 2023) considers various scales of 'solar PV installations' and considers the proposed 3.4 hectare array a 'Small solar PV installation' and considers the Cranborne Chase and West Wiltshire Downs to be of 'Greater landscape impact' landscape sensitivity to small scale solar development, as can be seen at **Figure 10** below, which replicates Figure 3.2: Landscape sensitivity to small scale (1-5ha) solar energy development, from the Renewable Energy Study Landscape Sensitivity Assessment:

²⁴ Impact Risk Zones - Threshold check

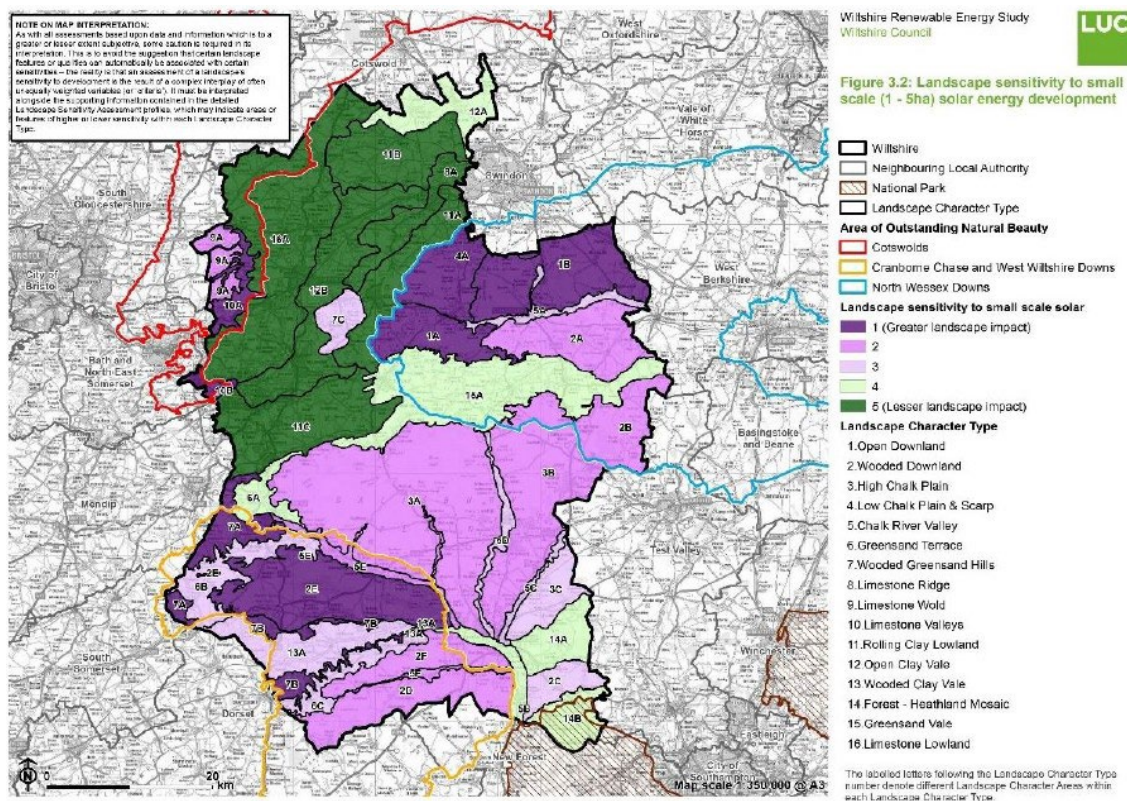


Figure 10 - Landscape sensitivity to small scale (1-5ha) solar energy development

- 5.8. Whilst the Landscape Sensitivity Assessment is too granular to pre-empt a Site-specific Landscape Visual Impact Assessment, given the location within the National Landscape it is noted as a Scoping consideration.

6. Key Issues to be Addressed by the Environmental Impact Assessment

Introduction

- 6.1. The EIA will be undertaken in accordance with the requirements of the EIA Regulations²⁵ and current good practice guidance. All technical studies will also be undertaken in accordance with relevant good practice guidance.
- 6.2. The legal minimum requirements for the content of an ES are set out in Schedule 4 of the EIA Regulations, as summarised at **Table 1** above. It is recognised that for the ES to fulfil its primary objective of enabling environmental considerations to be incorporated into the decision-making process, **it must be focused on the most potentially significant environmental issues**. The key issues that we consider should be 'scoped in' to the EIA are described below. The following sections therefore define the proposed focus of the EIA.
- 6.3. This section considers the potential significant environmental effects of the proposed development and therefore the technical topics proposed for inclusion within the ES. It should be noted that no significant (major) adverse effects are anticipated at this time, accounting for the adoption of suitable mitigation measures. However, this will need to be confirmed through the EIA process and constituent assessments.
- 6.4. The proposed scope of the EIA comprises technical topics to be:
- **'Scoped In'** for detailed consideration within a dedicated chapter of the ES, as significant environmental effects are considered likely prior to mitigation, or, inadequate information existed at the point of writing this scoping report to definitively conclude that no significant effects would occur; or
 - **'Scoped Out'** of further assessment as part of the EIA, as it is considered unlikely for these topics to exhibit significant environmental effects. In some cases, however, further information on these topics is required to satisfy other planning requirements. For such matters, the requisite information will be submitted as a stand-alone document accompanying the planning application.

²⁵ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

Scoped in Topics

Biodiversity

- 6.5. EcoLogic will be instructed to undertake a Biodiversity Net Gain (BNG) assessment for a proposed development, informed by a UK Habitat survey²⁶ and desk study. Once the baseline habitats of the Site are understood, a baseline BNG value will be established and proposed habitat creation and enhancement advised.
- 6.6. Noting the arable nature of the Site, the resulting BNG gain is anticipated to be in excess of the statutory 10% enshrined in law within the Environment Act 2021.
- 6.7. The overarching guidance for biodiversity is included within the National Planning Policy Framework (NPPF). Section 15 of this document (Conserving and Enhancing the Natural Environment) outlines the approach that Local Authorities should adopt when considering ecological issues within the planning framework, including the principles of the Mitigation Hierarchy. This espouses that in addressing impacts on valued features, avoidance should be the first option considered, followed by mitigation (minimising negative impacts). Where avoidance and mitigation are not possible, compensation for loss of features can be used as a last resort. Paragraph 180(d) of the NPPF requires opportunities to incorporate biodiversity improvements in and around development as part of the design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature, where this is appropriate. Paragraph 179 specifies that plans should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including locally designated sites. It also promotes the conservation, restoration and enhancement of priority habitats and ecological networks and the protection and recovery of priority species.
- 6.8. Pending assessment and the results of the BNG assessment, significant benefits in relation to biodiversity, cannot be scoped out at this time and Biodiversity will form a 'scoped in' topic of the ES.

Climate Change

- 6.9. The EIA Regulations require an EIA to consider climate change in respect of both the proposed development's contribution towards climate change, and the impact of climate change on the proposed development in the future.
- 6.10. The UK Climate Projections (UKCP18)²⁷ have produced predictions of climatic changes for the UK, including more intensive summers, milder winters, sea level rise, and more frequent storms and heavy rainfall. A summary of key climate change projections within the UK and modelled climate variables specific to the application site are as follows:

²⁶ ukhab – UK Habitat Classification

²⁷ UKCP summaries and headline findings - Met Office

- Summers will become hotter and drier;
 - Winters will become milder and wetter;
 - Soils will become drier on average;
 - Snowfall and the number of very cold days will decrease;
 - Sea levels will rise; and
 - Storms, heavy and extreme rainfall, and extreme winds will become more frequent.
- 6.11. Given the nature of the development, generating renewable energy and offsetting the use of fossil fuels, the Chapter will consider the context of the outlined climate change projections and:
- The vulnerability of the baseline environment to projected changes in climate;
 - The vulnerability and resilience of the proposed development to climate change; and
 - The effect of the proposed development within the context of climate change.
- 6.12. The assessment will include for qualitative and quantitative assessment, having regards to the relevant IEMA guidance; Environmental Impact Assessment Guide to: Climate Change Resilience & Adaptation (IEMA 202)
- 6.13. Pending assessment and the results of the climate change assessment, significant beneficial effects in relation to climate change adaption, cannot be scoped out at this time and Climate Change will form a 'scoped in' topic of the ES.

Landscape

- 6.14. LHC Design will undertake a Landscape and Visual Impact Assessment (LVIA), which will include four key elements:
- establishment of the baseline conditions;
 - assessment of the potential impacts of the proposed development;
 - assessment of the significance of impacts; and
 - proposals for mitigating impacts.
- 6.15. The methodology proposed to be used in the preparation of the LVIA follows the Guidelines for Landscape and Visual Impact Assessment (3rd. Ed. 2013) published by the Landscape Institute and the Institute for Environmental Management and Assessment. The methodology and terminology used will also be consistent with the Landscape Character Assessment Guidance for England and Scotland (Countryside Agency and Scottish Natural Heritage 2002) and An Approach to Landscape Character Assessment (Natural England 2014).
- 6.16. Landscape impacts and visual impacts will be treated separately. Landscape impacts derive from changes in the physical landscape resulting from the proposed development, which may give rise to changes in landscape character. Visual impacts relate to the changes that arise in the composition of available views as a result of the proposed development, and to the overall effects with respect to visual amenity.
- 6.17. Pending assessment and the results of the LVIA, significant environmental issues in relation to landscape, cannot be scoped out at this time and Landscape will form a 'scoped in' topic of the ES.

Scoped Out Topics

Agricultural Land Classification

- 6.18. Kernon Countryside Consultants will be instructed to confirm Agricultural Land Classification (ALC) Assessment for submission with the planning application. As set out at Section 5 above, the land is listed as 'Grade 3' under the ALC. Grade 3 comprises two subgrades: Grade 3a (good quality), which can produce moderate to high yields of a narrow range of crops, and Grade 3b (moderate quality). Kernon will confirm the grading, and this will be available for the LPA's attention,
- 6.19. The Proposed Development will result in the temporary loss of agricultural land for the duration of the operational period of the solar array. The array mounting structure is piled, not requiring deep foundation excavation, maintaining topsoil and otherwise ensuring the reversibility of the development. As shown at **Figure 7**, above, Grade 3 land is an abundant resource in the south – west, given this and the proposed ALC Assessment this topic is therefore proposed to be 'scoped out' of the EIA.

Archaeology

- 6.20. BWB will be instructed to provide an archaeological assessment in support of the planning application. Given the negligible footing of the piled mounting system and limited excavation required, it is not considered that archaeology gives rise the potential for significant environmental impacts.
- 6.21. It is therefore considered that archaeology as a topic can be 'scoped out' of the EIA.

Ecology

- 6.22. EcoLogic will undertake an Ecological Assessment of the Site, inclusive of Desk study to establish construction phase impacts, including to designated conservation sites. Operational phase impacts to designated sites will similarly be assessed.
- 6.23. The Ecological Assessment will include an Extended UK Habitat Survey, prepared by suitably qualified ecologists and any Protected Species surveys identified as required, will be undertaken within the relevant survey period. The Site comprises an arable field unit, with the development not requiring any tree or hedgerow removal. As can be seen at **Figure 3** above, the array does incorporate the planting of a new hedgerow, running west to east, the width of the Site.
- 6.24. Pending further ecological survey and the resulting Ecology Report, given the arable nature of the Site, significant environmental issues in relation to ecology are not considered likely at this time and Ecology is proposed to be 'scoped out' topic of the ES.

Flood Risk and Drainage

- 6.25. Amazi Consulting will undertake a Flood Risk Assessment and Drainage Strategy in support of the planning application.
- 6.26. As set out at Section 5, the site is outside of Flood Zones 2 and 3, within Flood Zone 1 and not in an area subject to surface water flooding. Noting also the nature of development, which does not require large extents of non-permeable development or dug foundations. Accordingly, flood risk and drainage as a topic is 'scoped out' of the ES.

Glint and Glare

- 6.27. Pager Power will undertake a glint and glare assessment of the proposed array. Given the modest scale of the array and siting, set back from the closest road (A303) and the intervening topography and vegetation, glint and glare is not anticipated to give rise to significant environmental effects to road users.
- 6.28. The potential for effects upon air traffic and proximate dwellings would also be considered as part of the glint and glare assessment. Again, given the scale and siting of the array glint and glare is not anticipated to give rise to significant environmental effects for air traffic or residential receptors.
- 6.29. Accordingly glint and glare as a topic is proposed to be ‘scoped out’ of the ES.

Ground Conditions and Contamination

- 6.30. The Site is in agricultural use, review of historic Ordnance Survey mapping²⁸ does not identify any activities to have occurred on the Site or immediate surrounds which could have led to significant ground contamination.
- 6.31. Agricultural use of the Site may have resulted in some minor localised contamination associated with the use of farm vehicles, fertilisers and herbicides. However, the Site is generally considered to present a low risk of contamination in its current use. In addition, the proposed development would not introduce any sensitive use.
- 6.32. At this stage, there is no evidence that significant contamination is present on the Site. With mitigation, significant adverse effects on ground conditions and potential exposure to contaminant is likely to be negligible. It is therefore intended to ‘scope out’ this topic from the ES.

Heritage

- 6.33. Contura Heritage will be instructed to undertake a Heritage Impact Assessment, considering the effect upon the setting of proximate heritage assets.
- 6.34. As set out at Section 5, the Site does not contain any heritage assets, the closest are:
- Grade II Listed Chicklade House approximately 800m to the east of Site;
 - Grade II Listed Church of All Saints approximately 870m to the east of Site; and
 - Bowl barrow Scheduled Monument a Scheduled Monument approximately 890m to the south – west of Site
- 6.35. Given the lack of potential for direct effects on the fabric of heritage assets or their immediate setting, it is determined that no significant adverse effects in relation to heritage are expected. As such, it is intended to ‘scope out’ this topic from the ES.

²⁸ [Map Finder - with Outlines - National Library of Scotland](#)

Major Accidents and Disasters

- 6.36. With reference to Schedule 4 of the EIA Regulations²⁹, this Scoping Report considers whether there are likely to be any significant effects on the environment or the project arising from the vulnerability of the proposed development to major accidents or disasters.
- 6.37. In the absence of recognised guidance on this subject in the context of EIA, a range of sources providing guidance related to the topic has been reviewed, including:
- Cabinet Office National Risk Register (NRR) of Civil Emergencies 2017 Edition³⁰;
 - UK Government Emergency Response and Recovery Guidance³¹; and
 - International Federation of Red Cross and Red Crescent Societies Disaster and Crisis Management Guidance³².
- 6.38. The application site is not located within a geographical region that has historically been subject to natural disasters. So, the proposed development has no real potential for such adverse effects, which would warrant consideration through the EIA process.
- 6.39. Based on the above and due to the nature of the proposed development, a Major Accidents and Disasters technical assessment is proposed to be 'scoped-out' of the ES.

Socio-economics, Health and Population

- 6.40. National planning policy recognises the importance of the design and use of the built and natural environment in relation to socio-economics, health and wellbeing, and the value that well-designed development projects can bring to creating healthy and safe environments for all.
- 6.41. Direct and indirect temporary jobs would be created associated with construction of the solar array, including opportunities for apprentices, graduates and other trainees during both the construction and operational phase.
- 6.42. The purpose of the proposed solar array is to generate renewable energy, reducing reliance upon fossil fuels. In the face of anthropogenic climate change, it is essential that decarbonising technologies are progressed.
- 6.43. Whilst it is anticipated that there will be positive effects associated with the proposal in relation to socioeconomics, health and population, these are not considered significant and it is intended to 'scope out' these topics from the ES.

²⁹ [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017](#)

³⁰ [UK National Risk Register 2017.pdf](#)

³¹ [Emergency response and recovery - GOV.UK](#)

³² [Disaster and crisis preparedness | IFRC](#)

Traffic and Transport

- 6.44. Motion with provide a Transport Assessment in support of the planning application. The construction of the solar array will require materials be delivered to Site, accordingly vehicle movements will occur during the construction of the solar array.
- 6.45. The planning application for the proposed development will be supported by an Outline Construction Traffic Management Plan (CTMP). The principal aim of the CTMP will be to ensure that the construction works are organised and delivered in a manner that safeguards the highway impact, highway safety and amenity of the area surrounding the construction works. The CTMP will be agreed with Wiltshire Council as Highways Authority and will be submitted with the planning application.
- 6.46. Once operational, there will be no material vehicular movements associated with the clearing and maintenance of the array, noting the proximity to the A-Road network and existing field access. These movements are not considered significant, and it is intended to 'scope out' Transport as a topic from the ES.

Summary of Proposed EIA

Topics to be Scoped In to the ES	Topics to be Scoped Out of the ES
Biodiversity	Agricultural Land Classification
Climate Change	Archaeology
Landscape	Ecology
	Flood Risk and Drainage
	Glint and Glare
	Ground Conditions and Contamination
	Heritage
	Major Accidents and Disasters
	Socio-economics, Health and Population
	Traffic and Transport

Table 2 - Proposed Technical Scope of the ES

7. Proposed Structure of the Environment Statement (ES)

- 7.1. The ES will be set out as detailed below and based upon the EIA Regulations and current best practice:

Environmental Statement: Volume 1: main text

- 7.2. This will contain the full text of the EIA. The proposed chapter headings are set out below:

- Introduction;
- EIA Methodology;
- Site Description;
- Description of the Development;
- Alternatives;
- Technical Chapters;
 - Biodiversity;
 - Climate Change;
 - Landscape;
- Cumulative impact;
- Residual Effects; and
- Summary and Conclusions.

Environmental Statement: Volume 2 - technical appendices

- 7.3. This will provide the detailed supporting data and the full text of Technical Chapters/ assessments along with the statement of competency for the EIA team.

Environmental Statement: Volume 3 - non-technical summary

- 7.4. This will provide a concise summary, in non-technical language i.e. 'plain English', of the key information in the EIA. The Non-Technical Summary will be produced as an illustrated stand-alone document in a format suitable for public dissemination.

Structure of Technical Chapters

7.5. The technical chapters of the ES will be structured as set out below:

Introduction

7.6. The introduction will provide a brief summary of what is considered in the chapter and will state the author and/or relevant technical contributor (Note: a full statement of competency for the whole EIA team will be provided in Volume 2 of the ES, as required by the EIA Regulations). Where appropriate, it will describe the assumptions and limitations related to the assessment of that topic and any constraints to undertaking the assessment.

Planning Policy and Legislative Context

7.7. This section will provide details of any relevant legal considerations or standards for the impact assessment, together with national, regional and local policy and Industry guidance that has informed the assessment.

Assessment Methodology and Significance Criteria

7.8. This section will provide details of:

- The methodology, technical, spatial and geographic scope of the assessment, with reference to any published methodological standards, professional guidelines and best practice that are particular to the topic;
- The comments raised during scoping/ consultation process and a commentary on how any pertinent matters have been addressed within the assessment;
- How baseline conditions have been assessed (e.g. site visits, surveys, review of publicly available data) and the scale of sensitivity and magnitude adopted within the assessment;
- How significance has been assessed (e.g. whether a matrix or some other approach has been adopted);
- Any associated development (i.e. works which are required to facilitate the development but do not form part of the planning application, such as off-site utilities works) that is relevant to the assessment; and
- Any assumptions or limitations.

Baseline Conditions

7.9. This section will generally take the form of a table or summary that provides a list of:

- The key receptors that have been identified;
- A brief description of those receptors;
- The sensitivity attributed to each receptor; and
- Where further details can be found within the relevant technical appendices.

Assessment of Effects

- 7.10. This section will present the assessment of potential effects/ impacts that are predicted to occur during the construction and operation of the proposed development. The assessment will include:
- The activities and physical elements of the development that are likely to give rise to particular effects, together with a more detailed description of such activities or elements where this would aid the reader's understanding of the assessment;
 - The receptor(s) that are likely to be affected;
 - Any specific embedded mitigation measures that have already been incorporated into the design of development in order to avoid or minimise the environmental effects (i.e. 'design mitigation');
 - The impact (including consideration of any embedded mitigation measures);
 - The magnitude, duration, reversibility, and overall significance of the impact, prior to further mitigation; and
 - Whether further mitigation is required.

Mitigation and Monitoring

- 7.11. This section will include details of:
- The phase during which the mitigation or enhancement measures will be implemented;
 - The mitigation and/or enhancement measure(s) being proposed;
 - How each measure will be secured and when it will be triggered;
 - The magnitude of the effect post-mitigation; and
 - Whether the post-mitigation effect is adverse or beneficial.

Residual Effects

- 7.12. This section will be tabulated, and include details of:
- The residual effect following the implementation of mitigation/ enhancement measures; and
 - The significance of the effect and whether it is adverse or beneficial, short, medium or long term, direct or indirect, permanent or temporary, and reversible or irreversible.

Conclusions

- 7.13. The section will contain a short concluding statement.

8. Conclusion

- 8.1. This report accompanies and informs a request for a Scoping Opinion from Wiltshire Council, with reference to the procedures set out in Regulation 15(1) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 8.2. It is proposed that focused Environmental Statement will be prepared including the Chapters detailed at **Section 7** and summarised at **Table 2**. All other topics are proposed to be 'scoped out' of the ES as discussed above and established via the relevant expert report and in some instances relevant consultee response.
- 8.3. In accordance Regulation 15(3), should the local planning authority consider that they have not been provided with sufficient information to adopt a Scoping Opinion, they should notify the person making the request of the points on which they require additional information.
- 8.4. As per Regulation 15(4), the local authority shall now consult with the Applicant and the consultation bodies and adopt their Scoping Opinion within 5 weeks of receiving this request.



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Mr. J Rankin

DKR Planning

Development Services Wiltshire Council

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www.wiltshire.gov.uk

22nd January 2026

Dear Sir,

SCOPING OPINION

Town and Country Planning (Environmental Impact Assessment) Regulations 2017

APPLICATION REFERENCE:	PL/2025/09603
APPLICATION TYPE:	SCOPING OPINION
PROPOSAL	Request for a Scoping Opinion for 3MW solar array and ancillary development
SITE ADDRESS:	Land north of the A303, Chicklade, Salisbury, SP3 5SS
ON BEHALF OF:	DKR Planning

Thank you for your request for a scoping opinion in relation to the Environmental Impact Assessment (EIA) for the above proposal. Following careful consideration of the information provided, I am writing to provide a Scoping Opinion. **This is an interim response, pending comments to be received from the Cranborne Chase National Landscape Partnership, the Council's landscape and climate teams and Historic England, which may subsequently affect the recommendations in this report.**

1. INTRODUCTION

This Scoping Opinion Report is issued by Wiltshire Council in response to the request for a Scoping Opinion submitted on behalf of DKR Planning under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, for a 3MW solar array and ancillary development.

The applicant has considered the Schedule 2 thresholds for EIA development.

The proposed development falls within category 3 (a) of Schedule 2 of the EIA Regulations, applicable to any 'Industrial installations for the production of electricity, steam and hot water' where 'The area of the development exceeds 0.5 hectare'. The red line boundary for the application extends to 12 hectares, with the proposed solar array taking up 3.4 hectares, exceeding the 0.5 hectare threshold given in Schedule 2.

Given the scale of the proposed development and its environmental setting within the Cranborne Chase National Landscape, it is considered by the applicant that EIA is applicable in this instance and therefore, the environmental assessment process has commenced with the EIA scoping stage.

Therefore, the applicant has issued a Scoping Report to Wiltshire Council as LPA (and statutory consultees) and to seek agreement on the coverage of the EIA, proposed assessment methodologies and ES structure, by way of a formal Scoping Opinion. The purpose of this Scoping Opinion is to provide guidance on the key environmental issues and topics that should be assessed in the Environmental Impact Assessment (EIA) for the proposed development. The scoping process helps to identify the *likely significant effects* of the development on the environment and the scope of information that should be provided in the EIA.

In order to provide this opinion, I have considered the information provided in your EIA scoping report dated December 2025 by DKR Planning. It is agreed that this is Schedule 2 development that has potential for likely significant environmental impacts either individually or cumulatively with other development. Furthermore, I have had regard to the consultation responses received to date and included as Appendices to this scoping opinion:

Appendix 1	Environment Agency response
Appendix 2	National Highways response
Appendix 3	Wiltshire Council (WC) Conservation response
Appendix 4	WC Highways response
Appendix 5	WC Public Protection response
Appendix 6	WC Rights of Way response
Appendix 7	WC Ecology response
Appendix 8	WC Archaeology response
Appendix 9	WC Drainage response
Appendix 10	Natural England response

Below is the list of the other consultations that have taken place, but for which no comments have been received to date. These will be forwarded when they arrive, please have regard to the advice in the development of your Environmental Statement:

- **WC Landscape and Climate Change teams**
- **Cranborne Chase National Landscape (AONB) Partnership**
- **Historic England**

2. DEVELOPMENT DESCRIPTION AND CONTEXT

The site comprises a 12 hectare arable field with the proposed solar array taking up 3.4 hectares. The Site is located approximately 120m to the north of the A303 and 900m to the west of Chicklade itself. Chicklade Services Station is approximately 170m to the south east of the Site and there is a cluster of commercial and residential properties at ‘Newlands’ approximately 100m to the south west.



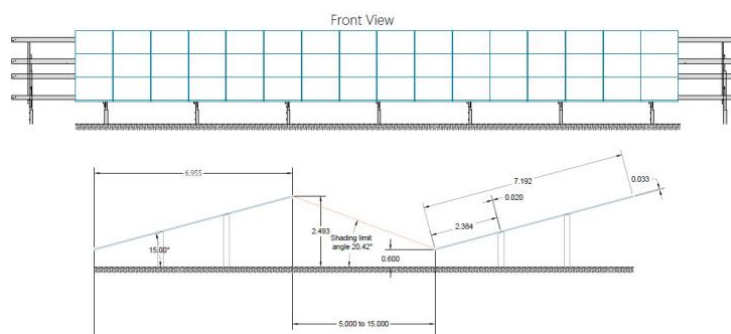
Specific policy constraints for the site include:

- Chilmark Quarries bat SAC
- River Avon Hampshire SAC
- A303 trunk road
- Bridleway CHIC 5 runs to the west of the site in a north/south direction
- Chicklade Neighbourhood Plan area – undesignated
- No flood risk from any source identified in 2020/4 Strategic Flood Risk Assessment
- Salisbury Plain and West Wiltshire Downs Countryside Character Area
- Cranborne Chase National Landscape

Planning History: There is no recent planning history for the site area.

PROPOSALS

The proposal is to erect a 3MW solar array and ancillary development consisting of frame mounted photovoltaic panels, a transformer station, substation, perimeter fence and proposed hedgerow planting. An 11kV power line crosses the southern portion of the Site, and another runs parallel to the western boundary, allowing for ready connection to the National Grid.



3. PLANNING POLICY AND LEGISLATION CONTEXT

The following key policies, legislation, and guidance documents are relevant to the preparation of the Environmental Impact Assessment (EIA) for the proposed development:

- The Town and Country Planning Act 1990 (TCPA 1990)
- Environmental Impact Assessment (EIA) Regulations 2017
- National Planning Policy Framework (NPPF)
- Planning Practice Guidance (PPG)
- Wiltshire Core Strategy (2015)

The scoping opinion also refers to specific legislation or guidance that may apply to the development, such as:

- The Conservation of Habitats and Species Regulations 2017 (for European protected species and habitats).

- The Wildlife and Countryside Act 1981 (for national protected species).
- The Climate Change Act 2008 (for carbon emissions considerations).
- The Air Quality Standards Regulations (2010).

4. SCOPE OF THE ENVIRONMENTAL IMPACT ASSESSMENT

As required by legislation, before adopting this scoping opinion, the following matters have been taken into account:

- a) Any information provided by the applicant about the proposed development;
- b) The specific characteristics of the particular development;
- c) The specific characteristics of development of the type concerned; and
- d) The environmental features likely to be significantly affected by the development

Once an Authority has adopted a scoping opinion this does not preclude it from requiring (of the person who made the scoping opinion) additional information in connection with any Statement that may be submitted by that person as an Environmental Statement in connection with the planning application.

Section 6 of your Scoping Report provides a useful summary of your starting point on what the significant environmental impacts of the development are *likely* to be. It is key to consider this as a starting point because this Scoping Opinion and the consultation responses from various stakeholder experts will help you to develop your thinking by providing further opinion and local context. Please do read all of the consultation responses provided and take a precautionary approach to scoping matters into the Environmental Statement.

To aid the evolution of your preliminary views as you begin working on your EIA submission and Environmental Statement, please note the following specific comments and all the consultation responses included as Appendices. I have indicated the LPA's conclusion on whether a matter should be scoped in or out in the main heading:

Designated Heritage Assets and Built Heritage: Scoped Out

You have scoped in the potential impact of the development on built heritage. Other non designated historic assets are scoped out of any EIA and modern and historic mapping indicates there is nothing within or immediately adjacent to the site that could be affected. Nearby Knoyle Down Farm to the west is of some historic interest, but there would be no intervisibility. Indeed, there seem to be very few potential viewpoints other than the public footpaths/bridleways. Given the lack of potential for direct effects on the fabric of heritage assets or their immediate setting, it is determined that no significant adverse effects in relation to heritage are expected. This conclusion is agreed.

Archaeology: Scoped In

The red line boundary of this proposal covers a large tranche of land, although it is noted that the proposed solar array will only occupy a portion of this area but, at 3.4ha, it is still a large area of previously undeveloped farmland.

The accompanying 'Scoping Report' notes the designated heritage assets in the vicinity of the proposed solar array but does not include the undesignated heritage assets shown on Wiltshire's Historic Environment Record (HER). The HER shows traces of an ancient field system within the site area and identified as soil and crop marks on aerial photographs of the 1970s.



These are just one of several ancient field systems recorded on the chalk downland around and above Chicklade. Based on evidence elsewhere, these ancient field systems may date from as early as the Bronze Age (2,000 – 800 BC) and been re-used in the Iron Age and Roman periods. The farmsteads and burial grounds of the farmers that created and used these ancient fields will lie within these field systems and largely await discovery.

The presence, character and significance of buried archaeological remains within the site that will be harmed by proposed development is therefore currently **not known**. It is therefore appropriate that the 'Scoping Report' notes that an archaeological desk-based assessment will be prepared in support of this proposal. The desk assessment should be informed by a non-intrusive geophysical survey of the area of the proposed solar array. This will go some way to establishing the likely archaeological content of the site and the likely harm that the proposal will have upon buried archaeological remains.

Without this information, **it is not possible at this stage** to understand the likely impact of the proposed development on the buried archaeological heritage and therefore the harm that it may cause. It is therefore premature for archaeology to be scoped out of the environmental assessment as there is currently insufficient information to make that judgement.

The results of the geophysical survey will determine if any further field survey would be appropriate. These archaeological surveys will enable an authoritative understanding of the archaeology of the site to be established, the impacts of the proposed development upon it, any archaeological constraints to development, and the mitigation measures that might be required to remove or ameliorate the harm. The LPA considers that for now, this matter should be **scoped in**.

Historic England comments are awaited. Please refer to the comments from the Archaeology and Conservation officers in the Appendices.

Landscape, the Cranborne Chase National Landscape and visual impact: Scoped In

Your preliminary view has already scoped in landscape and visual impacts. The scoping report concludes that *Pending assessment and the results of the LVIA, significant environmental issues in relation to landscape, cannot be scoped out at this time and Landscape will form a 'scoped in' topic of the ES.*

This is agreed. The EIA should assess the potential effects of the development on the character and quality of the landscape and views including the Cranbourne Chase National Landscape.

It should be noted that this is a sensitive site in landscape terms in a prominent location on a trunk road and therefore, the visual impact of the scheme is of significant importance. The visual impacts of the proposal should also be considered throughout any EIA, as the visual appearance of the scheme may be affected by other matters such as transport matters.

Provided the LVIA submitted with the application as part of the Environmental Statement complies with the Guidelines for Landscape and Visual Impact Assessment (IEMA, 3rd Edition, 2013) by the

landscape institute and that the above matters are taken account into account, the methodology you set out is likely to be acceptable, and subject to consultee responses. I will forward comments from the **Cranborne Chase National Landscape Partnership and the Council's Landscape officer** in due course.

Lighting: Scoped In

Lighting and its impact both on the surrounding landscape including the Cranbourne Chase National Landscape and its International Dark Skies Reserve need to be carefully considered. The NPPF attaches great weight to matters of landscape conservation in the NL. Whilst it is possible that the amount of light produced by the development would not be sufficient to cause *significant* effects, the **LPA will confirm** its view once the comments from National Landscape and landscape teams are received. For now, the LPA considers that lighting should be scoped in to the ES.

Ecology and Biodiversity: Scoped In

The site is not covered by any statutory nature conservation designations however it is located within three 6km Barbastelle SAC parcel buffers associated with the Chilmark Quarries SAC. Your preliminary view has scoped in ecology and biodiversity (natural heritage) impacts and considers that pending assessment and the results of the BNG assessment, significant benefits in relation to biodiversity cannot be scoped out at this time and Biodiversity will form a 'scoped in' topic of the ES.

The EIA Scoping Report is proposing to scope in the positive effects of achieving Biodiversity Net Gain (BNG) as it considers the positive benefits of BNG are likely to be significant. Under the Environment Act 2021 an application on this site would be required to deliver a minimum of 10% BNG and must be accompanied by a completed statutory metric calculation (including condition assessment sheets and maps) using the current version of the Natural England Biodiversity Metric.

The EIA Scoping Report is proposing to scope out further ecological assessments as significant impacts are not considered likely. An Extended UK Habitat Survey and any identified further species surveys are proposed. Overall, we agree with the proposals as set out in Section 6, however please refer to the detailed ecology comments in the Appendix below.

The site is located within three 6km Barbastelle SAC parcel buffers associated with the Chilmark Quarries SAC. Therefore, bat surveys will be required to identify key flight routes and to ensure mitigation identified within the application is sufficient and appropriate. An application on this site would also be subject to an Appropriate Assessment (AA) under Section 63 of the Conservation of Habitats and Species Regulations 2017, as amended, which must be carried out by the Competent Authority (the LPA) to determine the potential significant effects and the suitability of any measures proposed to avoid or mitigate those effects.

An application on this site should follow the ecological advice in the Solar PV Farms and Ecology: Developer Advice Note, 2021, which can be found at the following link:

[SolarPVFarmEcologyAdviceNoteJuly2021.pdf](#). Further information can be found here:
[Biodiversity and development - Wiltshire Council](#)

Natural England has provided specific and detailed advice in Appendix 10 to assist with this chapter of the ES regarding:

- Cumulative and in-combination effects

- Environmental data
- Biodiversity and Geodiversity
- International and European sites, Nationally designated sites and Regionally and Locally Important Sites
- Protected Species, Priority Habitats and Species
- Ancient Woodland, ancient and veteran trees
- Biodiversity net gain
- Nationally Designated Landscapes, Landscape and visual impacts, Heritage Landscapes
- Connecting People with nature
- Soils and Agricultural Land Quality
- Air Quality, Water Quality and Climate Change and
- Contribution to local environmental initiatives and priorities

Climate Change: Scoped In

Your scoping report concludes that given the nature of the development, generating renewable energy and offsetting the use of fossil fuels, the EIA will consider the context of the outlined climate change projections and:

- The vulnerability of the baseline environment to projected changes in climate;
- The vulnerability and resilience of the proposed development to climate change; and
- The effect of the proposed development within the context of climate change.

The assessment will include for qualitative and quantitative assessment, having regards to the relevant IEMA guidance; Environmental Impact Assessment Guide to: Climate Change Resilience & Adaptation (IEMA 202). Pending assessment and the results of the climate change assessment, significant beneficial effects in relation to climate change adaption, cannot be scoped out at this time and Climate Change will form a 'scoped in' topic of the ES.

Please also have regard to the comments from the Council's Climate team which will be forwarded to you in due course.

Agricultural Land: Scoped Out

The land is classed as grade 3 agricultural land and the LPA understands that Kernon Countryside Consultants will confirm the grading (3a BMV or 3b), and this will be available for the LPA's attention. The proposed scheme would result in the temporary loss of agricultural land for the duration of the operational period of the solar array. The array mounting structure is piled, not requiring deep foundation excavation, maintaining topsoil and otherwise ensuring the reversibility of the development. Any Grade 3a agricultural land means that it is the best and most versatile use (BMV). Such BMV land would be considered important in agricultural terms and any future planning application would need to justify its loss. None the less, its loss to agriculture from this development is not considered significant in EIA terms to warrant scoping into any future EIA. In the context of available BMV agricultural land in the area, and subject to the detailed advice set out by Natural England, it is unlikely to be necessary to scope this agricultural land into the EIA.

Flood Risk - Scoped Out

You have scoped this issue out of your EIA. You are advised to consider the responses received from Lead Local Flooding Authority and the Environment Agency in the Appendices.

The Wiltshire Council 2024 Strategic Flood Risk Assessment has indicated that the site is located within Flood Zone 1. The north-eastern portion of the site is adjacent to a small area indicated to be at risk of flooding from surface water from the 1 in 30 year extent.

Your report explains that Amazi Consulting will undertake a Flood Risk Assessment and submit a Drainage Strategy in support of the planning application. Given the nature of development, which does not require large extents of non-permeable development or dug foundations, flood risk has been 'scoped out' of the ES.

Contamination and the Water Environment: Scoped In

As the site is in agricultural use, it is unlikely that any activities to have occurred on the site or immediate surrounds which could have led to significant ground contamination. There may be some localised contamination associated with the use of farm vehicles, fertilisers and herbicides. However, the site is generally considered to present a low risk of contamination in its current use.

However, the Environment Agency note that the Site Location Plan (Ref: 00267-05-SiteLocation) includes areas which are located on Source Protection Zone 3, which is a groundwater resource that is particularly sensitive to contamination. The EA recommend that SPZs and their protection should be scoped in to the EIA, avoiding potentially contaminative development in these areas. Please refer to the EA comments in the Appendix.

Therefore, the impact on water resources should be scoped in the EIA and I would draw your attention to the detailed advice provided by the LLFA and the EA for compiling documents to support a planning application, set out in the Appendices.

Daylight, Sunlight Overshadowing and Solar Glare: Scoped In

Your report suggests that Pager Power will undertake a glint and glare assessment of the proposed array. Given the scale of the array and siting, set back from the closest road (A303) and the intervening topography and vegetation, you don't expect glint and glare to give rise to significant environmental effects to road users, air traffic or residential receptors. Accordingly glint and glare as a topic is proposed to be 'scoped out' of the ES.

However, the site is within the National Landscape and the National Landscape Partnership and Landscape team may have a view on likely significant impacts from glint and glare, and the LPA may agree with this assessment. Comments from these teams will be sent in due course with further conclusions if necessary.

Furthermore, I would draw your attention to the response from National Highways in the Appendix, which states:

A glint and glare assessment will need to be provided which should consider any potential impacts on trunk road users. National Highways will not accept any glint or glare impacts on highways safety grounds and all necessary screening mitigation will need to be provided by the developer, wholly within the development site. The developer cannot rely on National Highways estate to provide any screening mitigation for their development, in accordance with DfT Circular 01/2022.

For these reasons, the LPA currently considers that this matter should be scoped in.

Major Accidents and Disasters: Scoped Out

It is noted that Major Accidents and disasters have been scoped out of the potential EIA clearly there is always a risk that an accident or Natural Disaster could occur at the site but given its positioning and topography it is considered that any risk is likely to be minimal and can be mitigated through the design of the development. The local authority agrees with the view that major accidents and disasters associated with the development can be appropriately scoped out of the EIA.

Socio-economics, Health and Population – Scoped Out

Direct and indirect temporary jobs would be created associated with construction of the solar array, including opportunities for apprentices, graduates and other trainees during both the construction and operational phase. The purpose of the proposed solar array is to generate renewable energy, reducing reliance upon fossil fuels. Whilst it is anticipated that there will be positive effects associated with the proposal in relation to socio-economics, health and population, these are not considered significant and the LPA agrees that this can be scoped out from the ES.

Traffic and Transport – Scoped Out

The site access for this is over a Public Bridleway known as CHIC5. The bridleway is recorded with a minimum width of 2 metres. It should be noted that the Council are in receipt of an application to modify the definitive map for this path and record it as a Byway open to all traffic with a width of 40 metres.

Please note the specific queries in the Appendix from the Rights of Way team

The planning application for the proposed development would be supported by an Outline Construction Traffic Management Plan (CTMP). The principal aim of the CTMP will be to ensure that the construction works are organised and delivered in a manner that safeguards the highway impact, highway safety and amenity of the area surrounding the construction works. Once operational, there will be no material vehicular movements associated with the clearing and maintenance of the array, noting the proximity to the A-Road network and existing field access.

The local planning authority accepts that the impact of traffic from this development is unlikely to create significant effects and may be scoped out of the EIA. Please note the comments of the Local Highway Authority, Rights of Way and National Highways in the Appendices.

Pollution and Nuisance: Scoped Out

Please note the comments provided by Public Protection colleagues here, as they have raised the issue of noise. A Noise Impact Assessment will need to be undertaken and a report provided to demonstrate that the installation of inverters at this location will not result in any adverse impact on the nearest noise-sensitive receptors. This is an important planning consideration that will be assessed in any planning application. Furthermore, assessment will require information from you and the comments from colleagues in environmental protection will assist you further in determining how to proceed. These focus around managing noise during the construction and operational phases.

It is not considered that the effects of these matters on human health are of such significance that they need to be scoped into the EIA and as such can be excluded from it as a specific topic.

5. CONCLUSION

Based on the scoping process, the relevant planning policies and legislation outlined in this report, the

applicant should ensure that the EIA comprehensively addresses the key environmental issues already identified within their EIA Scoping Report. It is noted that these are preliminary findings and as such hopefully these comments and the consultation responses appended below will help further inform the production of the Environmental Statement.

It is hoped that this Scoping Opinion provides guidance to help you ensure that the EIA is robust and adequately covers all areas of likely significant environmental concern. The LPA will expect to receive a detailed EIA in due course, addressing these issues and incorporating any feedback received from the consultees.

Yours faithfully

Head of Development Management

APPENDICES Ctd....

APPENDIX 1 – ENVIRONMENT AGENCY

EIA SCOPING OPINION 3MW SOLAR ARRAY AND ANCILLARY DEVELOPMENT

LAND NORTH OF THE A303, CHICKLADE, SALISBURY

Thank you for consulting the Environment Agency on the above EIA scoping opinion request.

Environment Agency Position

We have reviewed the submitted Scoping Report (DKR Ref: 02482). The following comments, made regarding Source Protection Zones, the red line boundary, and future development, will help ensure that the environmental statement addresses the key environmental issues within our remit for this proposed development.

Source Protection Zones (SPZs)

The Site Location Plan (Ref: 00267-05-SiteLocation) includes areas which are located on a Source Protection Zone 3 which is a groundwater resource particularly sensitive to contamination. SPZs and their protection should be scoped into the EIA, avoiding potentially contaminative development in these areas. Information on the designations and implications can be found in our Groundwater Protection guidance: <https://www.gov.uk/government/collections/groundwater-protection>.

Red Line Boundary

The Site Location Plan (Ref: 00267-05-SiteLocation) submitted shows a red line boundary around an agricultural field, however, there is no boundary extension showing a connection for the solar array to the main grid or confirmation of where the energy will be used. This will need to be confirmed as part of any planning application.

Future Development

The Planning Layout (Ref: 00267-02-PlanningLayout) drawing for the solar array shows the panels will only take up a third of the site. If further development for the rest of the site within the red line boundary were to take place in the future, we would need to be consulted again.

The EIA Scoping Report (DKR Ref: 02482) does not include mention of Battery Energy Storage Systems (BESS), however, if energy storage were to be considered in future development of the site, then we would advise the following:

- Applicants are encouraged to engage with Local Fire & Rescue Services to ensure issues of siting and location of BESS are dealt with before applications are made. Ideally this should be done before submitting a planning application.
- LPAs are encouraged to engage with Local Fire & Rescue Services and to refer to guidance produced by the National Fire Chiefs Council for consideration when determining applications.
- Applicants will also need to comply with relevant Building Regulations in Part B. They require applicants to provide suitable access for the fire service.

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Applicants should also refer to guidance published by The Department for Energy Security and Net Zero: [Health and safety in grid scale electrical energy storage systems](#), which provides guidance on a number of topics related to health and safety including on 'Design and planning' that provides guidance on battery technology, site selection, site layout and emergency planning. It also includes a section on 'Decommissioning and end of life', including dealing with batteries that have come to the end of their use in the BESS.

Closing

Our advice and comments are based on the information available to us at the time of the EIA scoping opinion request. Regarding any further enquiries and/or information submitted relating to the proposed development, our position may change if there have been changes to environmental risk, evidence or legislation and/or to planning policy and guidance.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me.

Yours sincerely,

Jay Shaw (on behalf of Lindsay Ffello)
Sustainable Places - Graduate Trainee

Phone 02080 261949

Email wx.sp@environment-agency.gov.uk

Ctd....

APPENDIX 2 – NATIONAL HIGHWAYS

National Highways and Environmental Impact Assessment Reports

Request for a formal Scoping Opinion from the LPA under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

PL/2025/09603: Scoping for 3mw solar array – land north of the A303, Chicklade, Salisbury, SP3 5SS

Thank you for inviting National Highways (previously operating as the Highways Agency and Highways England) to provide comments on the above request for a scoping opinion. As a Statutory Consultee we seek to act as a proactive partner and therefore welcome pre-application discussion. This includes the opportunity to provide advice on the scope of any Environmental Statement pursuant to the procedures set out in the Environmental Impact Assessment Regulations 2017, which also identifies us as a statutory party.

Whilst we have no view on whether the above development meets the requirements for an Environmental Statement, we offer comments on the assessment of traffic impacts that we would expect to accompany any submission, as well as potential operational asset impacts that will require consideration by the applicant. Our comments relate to matters arising from our responsibilities to manage and maintain the strategic road network (SRN) which in this case comprises the A303 trunk road. Comments relating to the local road network should be sought from the appropriate Local Highway Authority.

The Proposals

The proposed development comprises a 12 hectare agricultural field with the solar panels located within the south portion comprising around 3.4 hectares. The Site is located approximately 120m to the north of the A303 and 900m to the west of Chicklade. The site is currently accessed directly from the A303 via a track which also serves a small number of residential and commercial properties as well as agricultural land. The A303 in this location is single carriageway and subject to the national speed limit.

The proposed 3MW solar array and ancillary development will comprise frame mounted photovoltaic panels, a transformer station, substation and perimeter fencing and hedgerow planting. It is proposed to connect to the National Grid via existing power lines which cross the southern portion of the proposed development site or run parallel to the western boundary. It is therefore understood that no cable crossing of the A303 will be required to form a grid connection.

It is acknowledged that the primary traffic impacts will occur during the construction phase of development and National Highways will need to be satisfied that safe and suitable access can be provided.

We have therefore set out below both the general and specific areas of concern that National Highways would expect to see considered as part of any Environmental Statement submission.

General aspects to be addressed

- An assessment of transport related impacts of the proposal should be carried out and reported as described in current national planning practice guidance.
- ♣ Environmental impacts arising from any disruption during construction, traffic volume, composition or routing change and transport infrastructure modification should be fully assessed and reported, along with the environmental impact of the road network upon the development itself.
- ♣ Adverse changes to noise and air quality should be considered, including in relation to compliance with the European air quality Limit Values and/or Local Authority designated Air Quality Management Areas (AQMAs) and World Health Organisation (WHO) criteria.

Location specific considerations

- The assessment of traffic impacts accompanying the application should consider the operation of the SRN in

line with national planning practice guidance and DfT Circular 01/2022 The Strategic Road Network and the Delivery of Sustainable Development. Where proposals result in a severe congestion or unacceptable safety impact, mitigation will be required in line with current policy.

- A construction traffic management plan will be required for our approval and acceptance which will need to consider construction vehicle routing and the adequacy of the existing site access arrangements to accommodate construction vehicle movements. The plan will need to consider any temporary improvements or mitigation measures necessary, accompanied by vehicle swept path plans.
- A glint and glare assessment will need to be provided which should consider any potential impacts on trunk road users. National Highways will not accept any glint or glare impacts on highways safety grounds and all necessary screening mitigation will need to be provided by the developer, wholly within the development site. The developer cannot rely on National Highways estate to provide any screening mitigation for their development, in accordance with DfT Circular 01/2022.
- The effects of the proposed development should be assessed cumulatively with other schemes, including committed development in the area.

These comments are only advisory as the responsibility for determining the scope and form of any EIA Report rests with the Planning Authority. Our comments are made on the basis of the information available to us at this time, and are made without prejudice to future advice and/or recommendations.

Kind regards

Gaynor Gallacher
South West Operations – Assistant Spatial Planner (Highways Development Management)
National Highways | Ash House | Falcon Road, Sowton Ind. Estate | Exeter | EX2 7LB

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APPENDIX 3 – HIGHWAYS

I note the EIA scoping opinion request. In terms of the local highway network managed by this Authority, I do not believe that an EIA would be required for highway impacts. However, the primary means of vehicular access to the site is from the A303T and thus recommend that you take guidance from National Highways on the impact to this route. Additionally, within the site, traffic routing is likely to use a public rights of way and I thus recommend that you consult the Council's Rights of Way Team directly.

APPENDIX 4 – CONSERVATION

I see no reason to disagree with the conclusion regarding the exclusion of built heritage from the ES. The Scoping Report doesn't appear to consider the concept of non-designated heritage assets, but as far as I can tell from modern and historic mapping there is nothing within or immediately adjacent to the site that could be affected. Knoyle Down Farm is of some historic interest and close to the west, but there would be no intervisibility. Indeed, there seem to be very few potential viewpoints other than the public footpaths/bridleways.

APPENDIX 5 – PUBLIC PROTECTION

I write regarding the request for a formal Scoping Opinion under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 – 3MW solar array and ancillary development at Chicklade.

Upon submission of a full application, this department would expect a Noise Impact Assessment to be undertaken and a report provided to demonstrate that the installation of inverters at this location will not result in any adverse impact on the nearest noise-sensitive receptors.

APPENDIX 6 – RIGHTS OF WAY

The site access for this is over a Public Bridleway known as CHIC5. The bridleway is recorded with a minimum width of 2 metres. It should be noted that we are in receipt of an application to modify the definitive map for this path and record it as a Byway open to all traffic with a width of 40 metres.

I know these comments will not be relevant for the screening opinion but I thought early warning might help the applicant.

How will vehicles accessing the site and turning in from the A303 deal with meeting a user of the PROW for instance an equestrian user. It would make crossing the A303 a little more challenging for users of the PROW, it maybe that a banksman will be required to assist with crossing the A303 and allowing vehicles to leave the A303 and access the development. What surfacing will be used on the PROW from the A303 to the entrance into the site? The applicant is likely to require a surface of a higher standard than the grass surface that currently exists. All gates on CHIC5 between the A303 and the site entrance will need to be removed unless they are required for the control of livestock or are authorised under section 66 of the Highways act 1980 for the safeguarding of users of the PROW. All gates into the solar farm will need to open into the site rather than out on to the bridleway. The site entrance from CHIC5 should be constructed so that a suitable visibility splay is available to allow vehicles to exit the site out onto CHIC5.

APPENDIX 7 - ECOLOGY

LAND NORTH OF THE A303, CHICKLADE ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT DECEMBER 2025 – DKR Rural Planning

Thank you for inviting us to review the above Scoping Report in relation to Land north of the A303, Chicklade, which we have assessed against OS maps and aerial photographs of the site and surrounding area, together with GIS layers of statutory and non-statutory designated sites for nature conservation and existing records of protected species.

The site is located to the east of Chicklade and to the north of the A303 and consists of an arable field bound by hedgerows and trees. The site is surrounded by agricultural land and there are residential properties to the south of the site.

The proposals consist of the erection of a 3MW solar array and ancillary development consisting of frame mounted photovoltaic panels, transformer station, substation, permitter fence and proposed hedgerow planting, on a site extending to 3.4ha, within a wider 12ha field.

The site is not covered by any statutory nature conservation designations however it is located within three 6km Barbastelle SAC parcel buffers associated with the Chilmark Quarries SAC. The site consists of an arable field and supports some habitats of ecological value to local wildlife, contributing to habitat connectivity with the wider landscape area, providing function for commuting and foraging by a range of species, via hedgerows with trees and grass margins. Records within the surrounding area include bats, badgers and birds including barn owl records.

Hedges are Natural England Priority Habitats, of high biodiversity value and are likely to support protected and notable species. Hedges are also recognised for their function as important corridors essential for species movement and maintenance of population status. Records indicate that there are no other known areas of priority habitat (listed under Section 41 of the NERC Act 2006) within the site. There is an area of deciduous woodland adjacent to the south western corner of the site and there are several areas of deciduous woodland and lowland calcareous woodland priority habitat within 1km of the site.

An EIA Screening Opinion has not been requested as the applicants team considers the development to constitute EIA development and are therefore preparing an Environmental Statement to support the planning application.

The EIA Scoping Report is proposing to scope in the positive effects of achieving Biodiversity Net Gain (BNG) as it considers the positive benefits of BNG are likely to be significant. Under the Environment Act 2021 an application on this site would be required to deliver a minimum of 10% BNG and must be accompanied by a completed statutory metric calculation (including condition assessment sheets and maps) using the current version of the Natural England Biodiversity Metric.

The EIA Scoping Report is proposing to scope out further ecological assessments as significant impacts are not considered likely. An Extended UK Habitat Survey and any identified further species surveys are proposed.

Overall, we agree with the proposals as set out in section 6, however please see comments below.

The site is located within three 6km Barbastelle SAC parcel buffers associated with the Chilmark Quarries SAC therefore bat surveys will be required to identify key flight routes and to ensure mitigation identified within the application is sufficient and appropriate. An application on this site would also be subject to an Appropriate Assessment (AA) under Section 63 of the Conservation of Habitats and Species Regulations 2017, as amended, which must be carried out by the Competent Authority (the LPA) to determine the potential significant effects and the suitability of any measures proposed to avoid or mitigate those effects.

An application on this site should follow the ecological advice in the Solar PV Farms and Ecology: Developer Advice Note, 2021, which can be found at the following link:

[SolarPVFarmEcologyAdviceNoteJuly2021.pdf](#).

Further information can be found here:

[Biodiversity and development - Wiltshire Council](#)

APPENDIX 8 – ARCHAEOLOGY

Thank you for consulting Wiltshire Council's Archaeology Service regarding this Scoping Opinion following a screening opinion. Please note that my comments relate solely to the buried archaeological heritage and the historic built environment is a matter for your Conservation Officer.

The red line boundary of this proposal covers a large tranche of land, although it is noted that the proposed solar array will only occupy a portion of this area but, at 3.4ha, it is still a large area of previously undeveloped farmland.

The accompanying 'Scoping Report' notes the designated heritage assets in the vicinity of the proposed solar array but does not include the undesignated heritage assets shown on Wiltshire's Historic Environment Record (HER). The HER shows traces of an ancient field system within the site area and identified as soil and crop marks on aerial photographs of the 1970s. These are just one of several ancient field systems recorded on the chalk downland around and above Chicklade. Based on evidence elsewhere, these ancient field systems may date from as early as the Bronze Age (2,000 – 800 BC) and been re-used in the Iron Age and Roman periods. The farmsteads and burial grounds of the farmers that created and used these ancient fields will lie within these field systems and largely await discovery.

The presence, character and significance of buried archaeological remains within the site that will be harmed by proposed development is therefore currently not known. It is therefore appropriate that the 'Scoping Report' notes that an archaeological desk-based assessment will be prepared in support of this proposal. The desk assessment should be informed by a non-intrusive geophysical survey of the area of the proposed solar array. This will go some way to establishing the likely archaeological content of the site and the likely harm that the proposal will have upon buried archaeological remains.

Without this information, it is not possible at this stage to understand the likely impact of the proposed development on the buried archaeological heritage and therefore the harm that it may cause. It is therefore premature for archaeology to be scoped out of the environmental assessment as there is currently insufficient information to make that judgement.

The results of the geophysical survey will determine if any further field survey would be appropriate. These archaeological surveys will enable an authoritative understanding of the archaeology of the site to be established, the impacts of the proposed development upon it, any archaeological constraints to development, and the mitigation measures that might be required to remove or ameliorate the harm.

I trust that this is satisfactory. Please do not hesitate to contact me if you would like to discuss this further or require any further information.

Best wishes,

Roland J C Smith
Assistant County Archaeologist

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APPENDIX 9 – DRAINAGE

To:	Development Management	From:	AtkinsRéalis (Drainage Team)
Planning App Ref:	PL/2025/09603		
Service Ref:	Drainage		
Date:	15/01/2026		

PROPOSAL

Request for a formal Scoping Opinion under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 – 3MW solar array and ancillary development

SITE LOCATION

Land north of the A303, Chicklade, Salisbury, SP3 5SS.

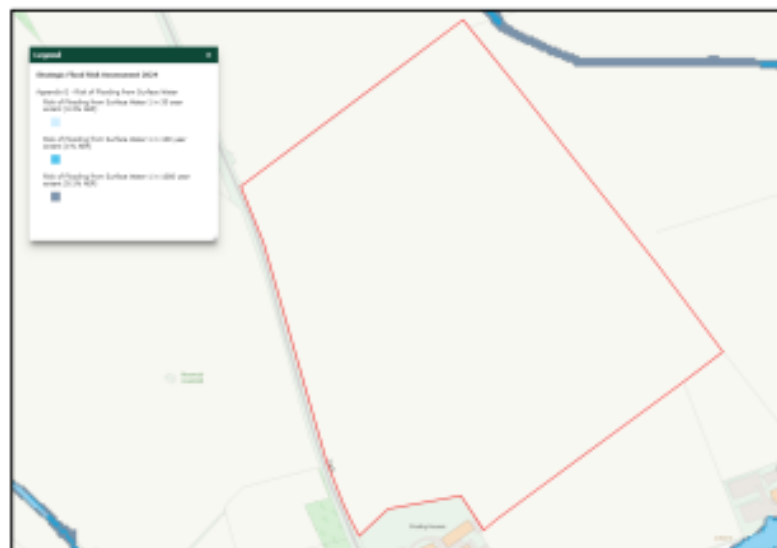
APPLICATION DOCUMENTS REVIEWED

- Site Location Plan (Drawing no. 00267-05-SiteLocation; dated 18/11/2025).
- Scoping Report, produced by DKR Rural Planning (Ref. 02482; dated December 2025).
- Planning Layout (Drawing no. 00267-02-PlanningLayout; dated 18/11/2025).
- Array Sections (Drawing no. 00267-03-ArraySections; dated 18/11/2025).
- Fence Sections (Drawing no. 00267-04-FenceSections; dated 18/11/2025).

We would expect the drainage specific inputs will largely be covered off through the FRA and Drainage Strategy for the development (as stated in the provided Scoping Report (pg. 21)). As part of those, we would expect to see the following information included:

SCOPING OPINION: FLOOD RISK

The Wiltshire Council Strategic Flood Risk Assessment, [SFRA Data Explorer](#), has indicated that the site is located within Flood Zone 1 and is not in an area indicated to be subject to surface water flooding. The north-eastern portion of the site is adjacent to a small area indicated to be at risk of flooding from surface water from the 1 in 30 year extent.



The SFRA Data Explorer does not indicate that the site is at risk of groundwater flooding.

Based on BGS Mapping, the site is indicated to be predominantly underlain by freely-draining shallow lime-rich over chalk or limestone (Soilscape 3), with a small portion of the north-west of the site underlain by freely-draining slightly acidic loamy soils (Soilscape 6). This indicates that infiltration is likely to be a feasible means of discharge on the site; however, the applicant will still be required to carry out appropriate Ground Investigations, including soakaway testing in accordance with BRE365, supporting detailed desk studies and carry out groundwater level monitoring that accounts for seasonal variation.

Scoping Advice: Drainage Strategy / Drainage Design

The applicant should note that in all instances the preference should be to utilise blue-green SuDS which provide multi-faceted benefits to the site (in terms of water quantity, quality, amenity and biodiversity); for example, for attenuation features preference should be given to use of swales / ponds / detention basins (if technically feasible) instead of attenuation tanks. The applicant should adopt a holistic approach to planning the site, and sufficient space for SuDS features should be provided at an early stage in order to fulfil the requirements of NPPF Paragraph 169; the LLFA will not accept statements that there is insufficient space for SuDS or that SuDS have not been utilised due to cost.

Any proposals should be designed in accordance with the Non-statutory Technical Standards for Sustainable Drainage Systems and the latest SuDS Manual (C753) and the National Standards for SuDS.

The LLFA would consider this to be a greenfield site for the purposes of planning.

We acknowledge that Solar Farms are often considered as "Essential Infrastructure" however that does not excuse the need for a Flood Risk Assessment to be provided (as per any major development or development at risk of flooding from any source). Specifically, within the FRA for a Solar Farm the following must be included:

- Comprehensive Evaluation: Assess flood risks from rivers (fluvial), overland storm rainfall runoff (pluvial), groundwater, field drainage, and sewers.
- Hydraulic Modelling to delineate flooding extents for different return periods.
- Solar Panel Runoff: Recognize that solar panels increase runoff and erosion. Manage stormwater runoff from the entire development area, not just associated infrastructure.

All solar farm applications must include a detailed drainage strategy. The following principles of the site's layout which may impact on Drainage/Flood Risk and therefore must be included and commented on within the strategy:

- Panel Arrangement: Arrange solar panel rows parallel to site contours to minimise flow channels and soil erosion.
- Flood Zone Precautions: Ensure all panels and additional items are located above the maximum predicted flood depth plus a freeboard (0.6m for flood zones 2 and 3, 0.3m for surface water flooding areas).

The proposed drainage strategy should focus on the following key areas:

- Infiltration: Preferred method for managing surface water runoff is by a combination of interception storage and formal infiltration-based features. These will need to be accompanied by site-specific Ground Investigations and Infiltration Testing in compliance with BRE385.
- Vegetation Management: The applicant shall outline how they will ensure the ground beneath solar panels is sufficiently vegetated and maintained, to ensure that channelisation and an increase in runoff does not occur. It must be noted that vegetation may not establish as well under the panels (due to the shade), and that runoff from the panels will likely be concentrated at the drip-edge.
- Bunds and Infiltration Strips: Install where necessary based on soil type and slope angle to manage overland flow routes.
- Swales: Incorporate swales to intercept and store runoff before it enters downstream watercourses.

The applicant should note the EA's updated climate change guidance (dated [27 May 2022](#)) when preparing the Flood Risk Assessment / Drainage Strategy.

The surface water drainage strategy should be submitted as part of future planning applications and should include/demonstrate the following in accordance with the [National Standards for SuDS](#):

Standard 1: runoff destinations

- Existing greenfield runoff rates for the site.
- Post development runoff rates.
- The strategy mimics the existing drainage characteristics of the site by retaining and utilising any existing drainage features.
- Evidence that the [surface water disposal hierarchy](#) has been applied and how all other options have been exhausted.
- If infiltration is proposed, it is implemented in manner that does not create an offsite impact, particularly if there are reports of groundwater flooding in the area.
- Consent for any outfalls from the proposed drainage systems into a public sewer or other drainage system not owned by the applicant.
- Land drainage consent is required if a development proposes to discharge flow into an ordinary watercourse or carry out work within 8m of an ordinary watercourse.

Standard 2: interception

- The first 5mm of rainfall from the majority of rainfall events will be managed by interception features and will not result in runoff from the site to surface water or piped systems.
- SuDS source control measures to manage water quantity and maintain water quality will be implemented wherever possible, and throughout the management train, so the development is not reliant upon large attenuation features close to the points of discharge.

Standard 3: management of extreme rainfall and flooding

- A detailed topographical survey that clearly identifies the existing drainage features on the site as well as level contours to show overland flow routes.
- Existing flood flow routes through the site have been maintained or where they will be affected, adequate measures to intercept and safely control flows through the site have been provided to ensure flood risk is not increased elsewhere.
- Exceedance routes that minimise the risks to people and property.
- Evidence that the finished floor levels above the maximum predicted 100-year flood level or if no flooding is predicted, at a sufficient height above the SW drainage cover levels.
- The drainage strategy does not increase flood risk as a result of catchment transfer.
- All proposed drainage features are outside flood zones 2 and 3 and where they are adjacent to an ordinary watercourse, they are not located within the EA surface water flood maps. Where drainage features are located adjacent to flood zones 2 and 3, they must be above the 1 in 100 year plus climate change flood level. This information can be provided by the EA.
- Calculations and drawings for the drainage system design showing designated holding areas and conveyance routes based on no flooding on site for a 1 in 30 year plus climate change rainfall event.
- Calculations and drawings for the drainage system design showing designated holding areas and conveyance routes based on no flooding on site for a 1 in 100 year plus climate change rainfall event in respect to a building (including basement) or utility plant susceptible to water within the development.
- If attenuation tanks are proposed that an allowance for reduced attenuation volume due to silt ingress (as per Section 21.9.9 of the SuDS Manual CIRIA C753).

Standard 4: water quality

- SuDS have been selected to provide a wide range of benefits, including water quality.
- Calculations which demonstrate that the proposed drainage design provides a sufficient level of water treatment.

Standard 5: amenity

- SuDS have been selected to provide a wide range of benefits, including amenity.

Standard 6: biodiversity

- SuDS have been selected to provide a wide range of benefits, including biodiversity.

Standard 7: design of drainage for construction, operation, maintenance, decommissioning and structural integrity

- A clearly labelled drainage layout plan showing the pipe networks and any attenuation ponds. The plan should show any pipe node numbers referred to within the drainage calculations.
- A plan showing the cross sections and design of any attenuation pond and its components.
- Geotechnical factual and interpretive reports, including infiltration tests in accordance with British Research Establishment (BRE) Digest 385 – Soakaway Design.
- Groundwater level monitoring (taking into account seasonal variations).
- The applicant is referred to Wiltshire Council's Surface Water Soakaway Guidance for the standards that must be met for planning approval and adoption of infiltration drainage features.
- Adequate measures during construction to control pollution to existing watercourses and groundwater.
- Details of how the proposed and existing drainage features on the site will be maintained and managed after completion with confirmation from the relevant authority that they will adopt any systems that are being offered for adoption.

If access to the site is predicted to flood, an emergency plan must be agreed with Wiltshire Council. Guidance on the preparation of an emergency plan can be found [here](#).

Scoping Advice: Construction Phase Plan

The applicant will need to specifically outline how they will manage the construction phase to both limit vegetation disturbance and prevent compaction of the soils (due to both being documented causes of increased runoff from solar farms). We would expect specific details provided on how the construction will:

- **Minimise Disturbance:** Limit vegetation disturbance and re-vegetate promptly after construction.
- **Prevent Soil Compaction:** Restrict vehicular movements to designated access tracks and mitigate soil compaction through methods like chisel ploughing.
- **Establish a Construction Phase Maintenance Plan:** Conduct regular inspections to ensure vegetation cover is adequate and no flow channels are generated. Remedial work should be carried out promptly if necessary.
- **Prevent any temporary increase in flood risk during the construction phase through phasing and provision of temporary drainage solutions.**

Scoping Advice: Monitoring Plan

As part of the development of solar farms in Wiltshire, we will expect owners to monitor and maintain their sites throughout the full life (including full restoration back to greenfield conditions at the end of the design life) such that flood risk is not increased elsewhere. We would expect the applicant to detail as part of their submission their plans for:

- **Regular Inspections:** Conduct regular inspections to ensure compliance with drainage and land management strategies.
- **Routine and ad-hoc maintenance:** Details of what maintenance activities will be completed, frequency of activities, and responsible parties.
- **Reporting:** We request developers to submit periodic reports on the effectiveness of flood risk management measures; both to ensure compliance with the strategies agreed and to facilitate greater learning of long-term performance of solar farms in managing local flood risk.

Context

In planning terms, flood risk refers to the potential for development to increase the likelihood or severity of flooding on-site or elsewhere, while drainage considerations relate to the capacity of the site and surrounding infrastructure to manage surface water runoff in a sustainable and effective manner.

The local planning authority must be satisfied that the proposed development will not increase flood risk, either on-site or elsewhere, and that surface water will be managed in a sustainable and coordinated manner.

Where necessary, planning conditions or legal agreements may be used to secure the implementation, maintenance, and monitoring of SuDS and other drainage infrastructure.

INFORMATIVES

Albeit not included as part of the application, the following details are included as additional information regarding drainage strategy requirements for Battery Storage Sites:

- **Flood Risk** – Battery Storage should be sequentially located outside of areas at High Risk of Surface Water Flooding, and Fluvial Flood Zones 2 and 3. Where this is not possible the applicant must demonstrate how the battery storage will be adequately protected from flooding.
- **Surface Water Runoff Management** – Runoff would need to be managed in accordance with Statutory Guidance and Wiltshire Council's other policies in relation to Discharge Rate Management and Control.
- **Fire suppression** – The applicant must detail how potentially contaminated fire suppression flows / runoff will be captured, stored, tested and ultimately disposed of such that there is not an increased flood or pollution risk to sensitive receptors.

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The table below stipulates the information typically required at each application stage. Provision of the correct information will expedite the processing of applications by the drainage team.

Pre-app	Outline	Full	Reserved matters	Discharge of conditions	Document to be submitted
✓	✓	✓			Flood Risk Assessment / Statement
✓	✓	✓			Drainage Strategy / Statement & sketch layout plan
	✓				Preliminary layout drawings
	✓				Preliminary "Outline" hydraulic calculations
	✓				Preliminary landscape proposals
	✓				Ground investigation report (for infiltration)
	✓	✓			Evidence of third party agreement for discharge to their system (in principle/ consent to discharge)
		✓		✓	Maintenance program and on-going maintenance responsibilities
		✓	✓		Detailed development layout
		✓	✓	✓	Detailed flood & drainage design drawings
		✓	✓	✓	Full Structural, hydraulic & ground investigations
		✓	✓	✓	Geotechnical factual and interpretive reports, including infiltration results
		✓	✓	✓	Evidence of measures to prevent pollution of the receiving groundwater and/or surface waters
		✓	✓	✓	Drawings showing conveyance routes for flows exceeding the 1 in 100 year plus climate change
		✓	✓	✓	Detailed landscaping details
		✓	✓	✓	Discharge agreements (temporary and permanent)
		✓	✓	✓	Development Management & Construction Phasing Plan

APPENDIX 10 – NATURAL ENGLAND

Environmental Impact Assessment Scoping consultation (Regulation 15 (4) of the Town and Country Planning EIA Regulations 2017): Request for a formal Scoping Opinion under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 – 3MW solar array and ancillary development

Location: Land north of the A303, Chicklade, Salisbury, SP3 5SS

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in the consultation dated 09 December 2025, received on 09 December 2025.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

A robust assessment of environmental impacts and opportunities based on relevant and up to date environmental information should be undertaken prior to a decision on whether to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for the proposed development.

Further guidance is set out in Planning Practice Guidance on [environmental assessment, natural environment and climate change](#).

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

Please note that Natural England must be consulted on Environmental Statements.

Please send any new consultations or further information on this consultation to consultations@naturalengland.org.uk.

Yours sincerely

Samuel Norton
Consultations Team

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Annex A – Natural England Advice on EIA Scoping

General Principles

[Schedule 4](#) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the information that should be included in an Environmental Statement (ES) to assess impacts on the natural environment. This includes:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
- A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation, cultural heritage and landscape and the interrelationship between the above factors
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- A non-technical summary of the information
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information

Further guidance is set out in Planning Practice Guidance on [environmental assessment](#) and [natural environment](#).

Cumulative and in-combination effects

The ES should fully consider the implications of the whole development proposal. This should include an assessment of all supporting infrastructure.

An impact assessment should identify, describe, and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment (subject to available information):

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

Environmental data

Natural England is required to make available information it holds where requested to do so.

National datasets held by Natural England are available at <http://www.naturalengland.org.uk/publications/data/default.aspx>.

Detailed information on the natural environment is available at www.magic.gov.uk.

Natural England's SSSI Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the [Natural England Open Data Geoportal](#).

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local wildlife trust, local geo-conservation group or other recording society.

Biodiversity and Geodiversity

General principles

The [National Planning Policy Framework](#) (paragraphs 192-196) sets out how to take account of biodiversity and geodiversity interests in planning decisions. Further guidance is set out in Planning Practice Guidance on the [natural environment](#).

The potential impact of the proposal upon sites and features of nature conservation interest and opportunities for nature recovery and biodiversity net gain should be included in the assessment.

Ecological Impact Assessment (EclA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EclA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. [Guidelines](#) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).

Local planning authorities have a [duty](#) to conserve and enhance biodiversity as part of their decision making. Conserving biodiversity can include habitat restoration or enhancement. Further information is available [here](#).

Designated nature conservation sites

International and European sites

The development site is within or may impact on the following European/internationally designated nature conservation site(s):

- Chilmark Quarries Special Area of Conservation (SAC)
- Mottisfont Bats Special Area of Conservation (SAC)

European site conservation objectives are available at <http://publications.naturalengland.org.uk/category/6490068894089216>

The ES should thoroughly assess the potential for the proposal to affect nationally and internationally designated sites of nature conservation importance, including marine sites where relevant. European sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) fall within the scope of the Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations').

In addition paragraph 187 of the National Planning Policy Framework (NPPF) requires that potential SPAs, possible SAC, listed or proposed Ramsar sites, and any site identified or required as compensatory measures for adverse effects on habitat (European) sites, potential SPAs, possible SACs and listed or proposed Ramsar sites have the same protection as classified sites (NB. sites falling within the scope of regulation 8 of the Conservation of Habitats and Species Regulations 2017 are defined as 'habitats sites' in the NPPF). Under Regulation 63 of the Habitats Regulations, an appropriate assessment must be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site. The consideration of likely significant effects should include any functionally linked land outside the designated site. These areas may provide important habitat for mobile species populations that are qualifying features of the site, for example birds and bats. This can also include areas which have a critical function to a habitat feature within a designated site, for example by being linked hydrologically or geomorphologically.

Should a likely significant effect on a European/Internationally designated site be identified (either alone or in-combination) or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an appropriate assessment in addition to the consideration of impacts through the EIA process. Further guidance is set out in Planning Practice Guidance on appropriate assessment

<https://www.gov.uk/guidance/appropriate-assessment>

This should also take into account any agreed strategic mitigation solution that may be being developed or implemented in the area to address recreational disturbance, nutrients, or other impacts.

Nationally designated sites

The development site is within or may impact on the following **Site of Special Scientific Interest**:

- Fonthill Grottoes Site of Special Scientific Interest (SSSI)

Sites of Special Scientific Interest are protected under the Wildlife and Countryside Act 1981 and paragraph 186 of the NPPF. Further information on the SSSI and its special interest features can be found at www.magic.gov.

Natural England's SSSI Impact Risk Zones can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the [Natural England Open Data Geoportal](#).

The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within the SSSI and identify appropriate mitigation measures to avoid, minimise or reduce any adverse significant effects. The consideration of likely significant effects should include any functionally linked land outside the designated site. These areas may provide important habitat for mobile species populations that are interest features of the SSSI, for example birds and bats. This can also include areas which have a critical function to a habitat feature within a site, for example by being linked hydrologically or geomorphologically.

Regionally and Locally Important Sites

The ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. Local Sites are identified by the local wildlife trust, geoconservation group or other local group and protected under the NPPF (paragraph 192 and 193). The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improving connectivity with wider ecological networks. Contact the relevant local body for further information.

Protected Species

The conservation of species protected under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017

is explained in Part IV and Annex A of Government Circular 06/2005 [*Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*](#).

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area.

The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.

Natural England has adopted [standing advice](#) for protected species, which includes guidance on survey and mitigation measures. A separate protected species licence from Natural England or Defra may also be required.

District Level Licensing for Great Crested Newts

District level licensing (DLL) is a type of strategic mitigation licence for great crested newts (GCN) granted in certain areas at a local authority or wider scale. A [DLL scheme for GCN](#) may be in place at the location of the development site. If a DLL scheme is in place, developers can make a financial contribution to strategic, off-site habitat compensation instead of applying for a separate licence or carrying out individual detailed surveys. By demonstrating that DLL will be used, impacts on GCN can be scoped out of detailed assessment in the Environmental Statement.

Priority Habitats and Species

Priority Habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. Lists of priority habitats and species can be found [here](#). Natural England does not routinely hold species data. Such data should be collected when impacts on priority habitats or species are considered likely.

Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land. Sites can be checked against the (draft) national Open Mosaic Habitat (OMH) inventory published by Natural England and freely available to [download](#). Further information is also available [here](#).

An appropriate level habitat survey should be carried out on the site, to identify any important habitats present. In addition, ornithological, botanical, and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.

The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys)
- Additional surveys carried out as part of this proposal
- The habitats and species present

- The status of these habitats and species (e.g. whether priority species or habitat)
- The direct and indirect effects of the development upon those habitats and species
- Full details of any mitigation or compensation measures
- Opportunities for biodiversity net gain or other environmental enhancement

Ancient Woodland, ancient and veteran trees

The ES should assess the impacts of the proposal on any ancient woodland, ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.

Natural England maintains the Ancient Woodland [Inventory](#) which can help identify ancient woodland. The [wood pasture and parkland inventory](#) sets out information on wood pasture and parkland.

The [ancient tree inventory](#) provides information on the location of ancient and veteran trees.

Natural England and the Forestry Commission have prepared [standing advice](#) on ancient woodland, ancient and veteran trees.

Biodiversity net gain

Paragraph 193 of the NPPF states that decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Biodiversity Net Gain is additional to statutory requirements relating to designated nature conservation sites and protected species.

Proposals for mandatory biodiversity net gain should be in line with the Environment Act 2021 and supporting regulations. Further information on biodiversity net gain, including [draft Planning Practice Guidance](#), can be found [here](#)

The statutory [biodiversity metric](#), together with ecological advice, should be used to calculate the change in biodiversity resulting from proposed development and demonstrate how proposals can achieve a net gain.

The metric should be used to:

- assess or audit the biodiversity unit value of land within the application area
- calculate the losses and gains in biodiversity unit value resulting from proposed development
- demonstrate that the required percentage biodiversity net gain will be achieved

Biodiversity Net Gain outcomes can be achieved on site, off-site or through a combination of both. On-site provision should be considered first. Delivery should create or enhance habitats of equal or higher value. When delivering net gain, opportunities should be sought to link delivery to relevant plans or strategies e.g. Green Infrastructure Strategies or Local Nature Recovery Strategies.

Opportunities for wider environmental gains should also be considered.

Landscape

Nationally Designated Landscapes

The development site is within or may impact on the Cranborne Chase & West Wiltshire Downs Area of Outstanding Natural Beauty.

The NPPF (paragraph 189) provides the highest level of planning protection for these nationally

designated landscapes.

Public bodies have a duty to seek to further the statutory purposes of designation in carrying out their functions (under section 245 of the Levelling Up and Regeneration Act 2023). This duty also applies to proposals outside the designated area but impacting on its natural beauty.

Consideration should be given to the direct and indirect effects on this designated landscape and in particular the effect upon its purpose for designation. The management plan for the designated landscape may also have relevant information that should be considered in the EIA.

Landscape and visual impacts

The environmental assessment should refer to the relevant [National Character Areas](#). Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.

The ES should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character.

A landscape and visual impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in *Guidelines for Landscape and Visual Impact Assessment 2013* ((3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and Management. For National Parks and AONBs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.

To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the [National Design Guide](#) and [National Model Design Code](#). The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure.

It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit.

Heritage Landscapes

The ES should include an assessment of the impacts on any land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific, or historic interest. An up-to-date list is available at www.hmrc.gov.uk/heritage/lbsearch.htm.

Connecting People with nature

The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the

vicinity of the development, in line with NPPF paragraph 105. It should assess the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

Measures to help people to better access the countryside for quiet enjoyment and opportunities to connect with nature should be considered. Such measures could include reinstating existing footpaths or the creation of new footpaths, cycleways, and bridleways. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Access to nature within the development site should also be considered, including the role that natural links have in connecting habitats and providing potential pathways for movements of species.

Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Soils and Agricultural Land Quality

Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered in line with paragraphs 187 and 188 of the NPPF. Further guidance is set out in the Natural England [Guide to assessing development proposals on agricultural land](#).

As set out in paragraph 223 of the NPPF, new sites or extensions to sites for peat extraction should not be granted planning permission.

The following issues should be considered and, where appropriate, included as part of the Environmental Statement (ES):

- The degree to which soils would be disturbed or damaged as part of the development
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted.

This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see www.magic.gov.uk.

- Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable

use and management of the available soil to achieve successful after-uses and minimise off-site impacts.

Further information is available in the [Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites](#) and

The British Society of Soil Science Guidance Note [Benefitting from Soil Management in Development and Construction](#).

Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue. For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg) ¹¹. A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NO_x and SO₂ against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The ES should take account of the risks of air pollution and how these can be managed or reduced. This should include taking account of any strategic solutions or SNAPs, which may be being developed or implemented to mitigate the impacts on air quality. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk).

Information on air pollution modelling, screening and assessment can be found on the following websites:

- SCAIL Combustion and SCAIL Agriculture - <http://www.scaill.ceh.ac.uk/>
- Ammonia assessment for agricultural development <https://www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit>
- Environment Agency Screening Tool for industrial emissions <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>
- Defra Local Air Quality Management Area Tool (Industrial Emission Screening Tool) – England <http://www.airqualityengland.co.uk/laqm>

Natural England has produced '[Air pollution and development: advice for local authorities. How to assess sector-specific planning applications that could affect air quality on a protected site](#)'. This standing advice is to help planning authorities understand the impact on statutory protected sites from particular developments that emit specific air pollutants. The advice covers emissions of ammonia (NH₃), nitrogen oxides (NO, NO₂ or NO_x), nitrogen deposition, acid deposition and sulphur dioxide (SO₂).

The standing advice is Natural England's formal statutory advice and is a material consideration. It provides decision makers with the information needed to fulfil their statutory duties when making decisions on planning applications with potential air pollution impacts.

Water Quality

¹¹ [Report: Trends Report 2020: Trends in critical load and critical level exceedances in the UK - Defra, UK](#)

The planning system plays a key role in determining the location of developments which may give rise to water pollution, and hence planning decisions can have a significant impact on water quality, and land. The assessment should take account of the risks of water pollution and how these can be managed or reduced. A number of water dependent protected nature conservation sites have been identified as failing condition due to elevated nutrient levels and nutrient neutrality is consequently required to enable development to proceed without causing further damage to these sites. If your planning application is affected by Nutrient Neutrality, the ES needs to take account of any strategic solutions for nutrient neutrality or Diffuse Water Pollution Plans, which may be being developed or implemented to mitigate and address the impacts of elevated nutrient levels. These solutions or plans should be relevant to the specific planning consultation site. Further information can be obtained from the Local Planning Authority.

Climate Change

The ES should identify how the development affects the ability of the natural environment (including habitats, species, and natural processes) to adapt to climate change, including its ability to provide adaptation for people. This should include impacts on the vulnerability or resilience of a natural feature (i.e. what's already there and affected) as well as impacts on how the environment can accommodate change for both nature and people, for example whether the development affects species ability to move and adapt. Nature-based solutions, such as providing green infrastructure on-site and in the surrounding area (e.g. to adapt to flooding, drought and heatwave events), habitat creation and peatland restoration, should be considered. The ES should set out the measures that will be adopted to address impacts.

Further information is available from the [Committee on Climate Change's \(CCC\) Independent Assessment of UK Climate Risk](#), the [National Adaptation Programme \(NAP\)](#), the [Climate Change Impacts Report Cards](#) (biodiversity, infrastructure, water etc.) and the [UKCP18 climate projections](#).

The Natural England and RSPB [Climate Change Adaptation Manual](#) (2020) provides extensive information on climate change impacts and adaptation for the natural environment and adaptation focussed nature-based solutions for people. It includes the Landscape Scale Climate Change Assessment Method that can help assess impacts and vulnerabilities on natural environment features and identify adaptation actions. Natural England's [Nature Networks Evidence Handbook](#) (2020) also provides extensive information on planning and delivering nature networks for people and biodiversity.

The ES should also identify how the development impacts the natural environment's ability to store and sequester greenhouse gases, in relation to climate change mitigation and the natural environment's contribution to achieving net zero by 2050. Natural England's [Carbon Storage and Sequestration by Habitat report](#) (2021) and the British Ecological Society's [nature-based solutions report](#) (2021) provide further information.

Contribution to local environmental initiatives and priorities

The ES should consider the contribution the development could make to relevant local environmental initiatives and priorities to enhance the environmental quality of the development and deliver wider environmental gains. This should include considering proposals set out in relevant local strategies or supplementary planning documents including landscape strategies, green infrastructure strategies, tree and woodland strategies, biodiversity strategies or biodiversity opportunity areas.

Development Services

Wiltshire Council
County Hall
Bythesea Road
Trowbridge
BA14 8JN

Shared electronically: becky.jones@wiltshire.gov.uk

Date: 26th January 2026

Our ref: 02482

Site: Land to the north west of the A303, Chicklade, SP3 5ST
Proposal: EIA Scoping for a 3MW solar array and ancillary development

Dear Mrs. Jones,

Following the interim Scoping Opinion dated 22nd January 2026 and the requested extension of time, please see the below response.

Since the Scoping request was submitted, we have received the archaeology and glint and glare assessments, hopefully these provide sufficient assurance to scope these topics out.

Proposed Scope of the Environmental Statement

Please find commentary per topic to be Scoped in below:

Archaeology:

Archaeology is proposed to be scoped in on the basis that 'The presence, character and significance of buried archaeological remains within the site that will be harmed by proposed development is therefore currently not known'.

Please find the following document enclosed; Chicklade Solar Farm, Wiltshire Archaeological Assessment (BWB January 2026). As you will read, the assessment does not identify the potential for significant environmental impacts in respect of archaeology.

Accordingly, it is considered that archaeology as a topic can be 'scoped out' of the EIA.

Landscape:

Scoped in as per our Scoping request and will form an Environmental Statement (ES) Chapter.

Ecology and Biodiversity:

Scoped in as per our Scoping request and will form an ES Chapter.

Climate Change:

Scoped in as per our Scoping request and will form an ES Chapter.

Contamination and the Water Environment:

The response states, 'it is unlikely that any activities to have occurred on the site or immediate surrounds which could have led to significant ground contamination'.

The construction and operation of a solar array would not introduce any use or circumstance that would increase the potential for significant ground contamination. The operation of vehicles during the construction phase is comparable to the existing arable farm traffic.

No pathway for contamination is identified, with any vehicular movements during construction not sufficient to present significant environmental effects in respect of contamination. Noting that EIA must be focused on the most potentially significant environmental issues, Contamination and Water Environment is proposed to be scoped out.

Daylight, Sunlight Overshadowing and Solar Glare:

I enclose the following report: Pager Power Solar Photovoltaic Glint and Glare Study (January 2026) which concludes:

'No significant impacts are predicted upon road safety, residential amenity and aviation activity. Mitigation is not recommended'.

Accordingly, Daylight, Sunlight Overshadowing and Solar Glare, as a topic is proposed to be scoped out of the ES.

Extension of time

The request for a Scoping Opinion was submitted to the Wiltshire Council on the 03rd December 2025. Under Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 the Council has 5 weeks (35 days) in which to adopt a Scoping opinion.

Whilst the extension of time until the 17th of February is agreed, it is noted that this time period exceeds twice the statutory 5 weeks.

Yours sincerely,



Jonny Rankin MRTPI PISEP
Director
T: 0750 8334889

2. Appendix 2: Carbon Offset

Appendix 2.1 – Carbon Offset Note

In this scenario, because your solar generation (**3,741,888 kWh**) significantly exceeds the EV hub's annual demand (**1,314,000 kWh**), the facility functions as a net-exporter of green energy. This means 100% of the EV charging is powered by zero-carbon solar, and the remaining surplus decarbonizes the wider local grid.

Project: 3.35 MWp Integrated Solar & EV Charging Hub

1. Solar Infrastructure Overview

The combined solar capacity provides a robust renewable base, ensuring the hub is more than self-sufficient on an annualised basis.

- **Ground-Mount Solar (3,285 kWp):** 3,670.4 MWh/year
- **Roof-Mounted Solar (64 kWp):** 71.49 MWh/year
- **Total Annual Generation: 3,741.89 MWh (G_{total})**

2. Carbon Displacement Calculation (2026 Metrics)

We use the 2026 UK grid intensity factor of **0.177 kg CO₂e/kWh** to calculate the emissions avoided by generating this power renewably rather than drawing it from the national mix.

$$S_{total} = G_{total} \times C_{grid}$$
$$3,741,888 \text{ kWh} \times 0.177 \text{ kg/kWh} = 662,314 \text{ kg CO}_2\text{e}$$

3. EV Utilization & "Net Gain" Benefits

The hub enables **1,314,000 kWh** of electric driving per year. Since the solar generation covers 100% of this demand, the carbon intensity of the hub's electricity E_{avg} is effectively **0 kg/kWh**.

Calculation of Displacement vs. ICE Vehicles:

$$E_{enabled} = U \times (I_{avg} - E_{avg})$$
$$1,314,000 \text{ kWh} \times (0.550 \text{ kg/kWh} - 0 \text{ kg/kWh}) = 722,700 \text{ kg CO}_2\text{e}$$

4. Consolidated Impact Table

Metric	Value	Annual CO2e Saving
Solar Generation (Total)	3,741.89 MWh	662.3 Tonnes
EV Transition Benefit	1.314 MWh	722.7 Tonnes
Combined Annual Impact		1,385.0 Tonnes

Key Takeaway: This facility offsets approximately **1,385 tonnes of CO2e every year**. To put this in perspective, this is equivalent to planting roughly **63,000 mature trees** or taking over **300 average petrol cars** off the road permanently.

5. Efficiency & Surplus

Because your solar generation is ~2.8x higher than the hub's consumption, the project provides a **"Solar-to-EV" Surplus of 2,427.89 MWh**. This surplus is exported to the local distribution network, providing enough clean energy to power approximately **800 additional UK homes** annually (based on an average 3,000 kWh/year usage).

Note: EV Charging demand is based upon **30 chargers consuming 120kWh per day for 365 days per year**.

3. Appendix 3: Ecology and Biodiversity

Appendix 3.1 – Ecology and Biodiversity Report (EcoLogic January 2026)

Preliminary Ecological Appraisal & Biodiversity Metric Assessment

Land at Chicklade Service Station
Chicklade
Wiltshire
SP3 5SS



Planning Reference:		Report Reference:	251123 rev00B
Client/s:	Enviromena Project Management UK Ltd.		
Architect/Agent:			
Survey Date/s:	3 rd December 2025		
Report Date:	January 2026	OS Grid Ref:	ST 90192 34585
Report Author:	Rebeka Pajor- Papai Cert HE (Environment) TechArborA		
Approved By:	William Clovis-Corbett BSc (Hons), MRes		
Surveyor:	William Clovis-Corbett	Bats: 2025-84224-CL18-BAT (WML-A34 Level 2) Barn Owl: 2026-87997-CL29-OWL	

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DISCLAIMER

It is to be noted that this report is context specific. If any changes are made to the brief and/or the development proposal Ecologic Consultant Ecologists LLP must be informed, as amendments may be required. The information provided in this report must be reviewed and updated in the time following twelve months from the date of survey. This report (including any enclosures and attachments) has been prepared for the exclusive use and benefit of the addressee(s) and solely for the purpose for which it is provided. Unless we provide express prior written consent, no part of this report is to be reproduced, distributed or communicated to any third party. Ecologic Consultant Ecologists LLP do not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report.

1.1 Site Description and Proposal

It is proposed to develop a solar farm to facilitate an EV Charging hub at Land at Chicklade Service Station, Chicklade, Wiltshire, SP3 5SS, with associated landscaping.

1.2 Survey Results

The site habitats have the potential to support common amphibians, foraging & commuting bats, badgers, birds, dormouse, hedgehog, invertebrates and other mammals.

1.3 Impacts

It is proposed to develop a solar farm to facilitate an EV charging hub, with associated landscaping and localised ground disturbance to provide access and infrastructure. This will remove a limited extent of hedgerow for an access gate, extents of non-cereal crop land, arable field margins and bare ground. No introduction of lighting is proposed for the development.

The works could initially negatively impact common amphibians, foraging & commuting bats, badgers, birds, dormouse, hedgehog, invertebrates and other mammals, which may be present on site. However, given the low ecological value of the baseline habitat, the retention of the majority of the hedgerows, and its replacement with higher-quality habitats, any impacts are expected to be minor.

1.4 Recommendations

Mitigation, compensation and enhancement measures are detailed in Section 6.

1.5 Biodiversity Net Gain Assessment

The Biodiversity Metric Assessment demonstrates that the proposal will result in a net gain of 38.87 area habitat units (150.18% gain), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a net gain of 5.40 hedgerow units (91.11% gain) will be achieved through the creation of hedgerows and enhancement of hedgerows on site.

With the proposed habitat creation, the development currently achieves the minimum legal requirement of +10% for area and hedgerow habitat biodiversity units.

1.6 Conclusion

The Biodiversity Metric Assessment (BMA) results in an 150.18% gain for area habitats and a 91.11% gain for hedgerow habitats, with mitigation, compensation and enhancement measures provided for protected species. Consequently, the development is considered to demonstrate a positive biodiversity impact at the site level.

2.1 Site Location & Description

The site is located within a rural agricultural landscape near Chicklade, Wiltshire. The site consisted of large arable fields bound by hedgerows. The A303 forms the southern site boundary, and land use in the surrounding area is predominantly agricultural, with occasional farmsteads and small, dispersed residential properties (see Figure 2.1). An EV charging station is already under construction at the southeastern extent of the site.

2.2 Proposal

It is proposed to develop a solar farm to facilitate an EV Charging hub at Land at Chicklade Service Station, Chicklade, Wiltshire, SP3 5SS, with associated landscaping.

2.3 Survey Objectives

The Preliminary Ecological Appraisal (PEA) was undertaken to consider and assess the perceived ecological impacts associated with the proposal, including any perceived impacts to:

- Legally protected species or species of conservation concern;
- Legally protected habitats or habitats of conservation concern;
- Any statutory or non-statutory sites of conservation interest; and,
- Opportunities to provide biodiversity enhancement(s).



Figure 2.1. Proposed area for works (outlined in red) at Chicklade Service station

3.1 Preliminary Ecological Appraisal

3.1.1 Scope of the Assessment

The zone of influence covers the extent of the site, the site boundaries, and areas directly adjacent to the site. The assessment considers designated sites, habitats and species of importance for biodiversity conservation and protected species.

3.1.2 Desk Study

A desk study was undertaken for the site and its surroundings including:

- Review of the Government's (DEFRA) mapping website MAGIC (www.magic.gov.uk);
- Review of the Government's Natural England Open Data Geoportal website (<https://naturalengland-defra.opendata.arcgis.com/>); and,
- Data purchased from Wiltshire Biodiversity Records Centre (WBRC).

Review of the ecological data included a search of:

- International & European designated sites (Natura 2000 sites¹) –within a 10 km radius of the site;
- Statutory designated sites (e.g. Sites of Special Scientific Interest (SSSIs)) within a 1 km radius of the site;
- Non-statutory designated sites (e.g. Local Wildlife Sites (LWS)) designated for wildlife conservation within a 1 km radius of the site;
- Priority habitats – within a 1 km of the site;
- Protected species licence records issued by Natural England since 2009 – within 4 km of the site;
- Great crested newt pond survey records within 1 km of the site; and,
- Location of the site within any consultation zones designated for protected species.

¹ Natura 2000 is a European Union-wide network of nature conservation sites established under the EC Habitats and Birds Directives comprising Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

WBRC

Data purchased from WBRC included statutory and non-statutory sites, priority habitats and records of protected and designated species within the survey area and within 1 km of the survey area boundaries. Species records are also largely obtained as incidental recordings and subsequently an absence of any specific species does not consequently indicate an absence of a species.

3.1.3 Field Survey

The field survey consisted of a walkover assessment of all areas of the site using the UK Habitat Classification System methodology (UKHab, 2023). This is a standard technique designed for classifying and mapping British habitats.

Each habitat was assigned the appropriate alphanumeric code followed by any relevant secondary codes in accordance with UKHab Category Definitions V2.0 (UKHab Ltd., 2023). These codes are shown on the UK Habitat Classification Map (Appendix 1). Apart from buildings, habitat areas below the minimum mappable unit of 25 m² will be denoted by target notes and secondary codes. Target notes are used to indicate specific features, important habitats and/or field signs. An indicative list of observed plant species was compiled with the common name used in the main body of the report, and both the common and scientific names provided within Appendix 2.

The site survey was undertaken on the 3rd December 2025 by William Clovis-Corbett. All areas within the site were surveyed and assessed for indicators of ecological value, including the presence or signs of any protected or rare habitats and species.

3.2 Biodiversity Metric Assessment

For each site habitat feature identified within the Defra Statutory Biodiversity Metric (2024), the metric records:

- Habitat type;
- Area or length;
- Distinctiveness;
- Strategic significance; and,
- Connectivity.

From the recorded parameters, the metric calculates:

- 'Habitat units' for area habitats (e.g. grassland, woodland etc.);
- 'Hedgerow units' for hedges and lines of trees; and,

- 'River units' for rivers and streams.

The habitat values assigned to created and enhanced habitats include factors associated with 'risk' relating to the difficulty and/or time required to establish the new habitat type.

The following were used for the calculation of the parameters, pre and post, development (Statutory Metric, version 1.0.4 03/07/2025):

- The site visit undertaken on 3rd December 2025;
- Proposed plans; and,
- Desk study results.

4.1 Desk Study

4.1.1 Statutory Designated Sites

Statutory Sites of Nature Conservation Interest (International Importance)

The desk study identified two sites of international importance within 10 km of the site as described in Table 4.1.

Table 4.1. Statutory sites with international designation within 10 km of the site boundaries

Ecological Feature	Site Type	Importance	Summary	Distance
Chilmark Quarries	Special Areas of Conservation (SAC)	International	Significant due to providing suitable hibernation conditions for numbers of greater horseshoe, lesser horseshoe, barbastelle and Bechstein's bats.	~4 km southeast
River Avon	SAC	International	Significant due to water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation. As well as species such as Desmoulin's whorl snail, sea lamprey, brook lamprey, Atlantic salmon and bullhead.	~7 km east

Statutory Sites of Nature Conservation Interest (National Importance)

There were no statutory sites designated for nature conservation of national importance within 1 km of the site.

4.1.2 Non-statutory Designated Sites

The desk study identified one non-statutory designated site within 1 km of the site as described in Table 4.2.

Table 4.2. Statutory sites with local designation within 1 km of the site boundaries

Ecological Feature	Site Type	Importance	Summary	Distance
Cratt Hill Down	Local Wildlife Sites (LWS)	Local	A gently undulating chalk site with unimproved calcareous grassland, improved grassland and mature scrub.	~230 m northeast

4.1.3 Priority Habitats

The desk study identified areas of deciduous woodland and lowland calcareous grassland within 1 km of the site. The closest priority habitat was an area of deciduous woodland, which was located 5 m west of the survey site.

4.1.4 European Protected Species Licences (EPSLs)

Bats

The desk study identified three EPSLs for common pipistrelle, soprano pipistrelle, brown long-eared bat, serotine, lesser horseshoe and greater horseshoe granted within 4 km of the site. The nearest of which was located approximately 1.9 km south of the site, consisting of a licence for brown long-eared bat, serotine, lesser horseshoe and greater horseshoe allowing the destruction of a resting place.

Dormouse

The desk study identified no EPSLs granted for dormouse within 4 km of the site.

Great Crested Newt

The desk-based review identified no EPSLs or survey licence returns for great crested newt within 4 km of the site.

4.1.5 Consultation Zones

GCN Impact zones

The desk study identified that the site is situated within a 'Green Zone' for great crested newts. The designation of this zone indicates that the area is less likely to contain important pathways of connecting habitat for this species.

Chilmark Bat SAC consultation zone

The desk study identified that the site lies outside the Chilmark Quarries Special Area of Conservation (SAC) but within the associated bat consultation zone. This SAC is designated for its importance to greater horseshoe, lesser horseshoe, barbastelle and Bechstein's bat populations.

4.1.6 Area of Outstanding Natural Beauty

Cranborne Chase & West Wiltshire Downs

The desk-based review identified that the site is located within the Cranborne Chase & West Wiltshire Downs Area of Outstanding Natural Beauty (AONB).

4.2 Field Survey

The survey was undertaken in dry, cold weather as shown below in Table 4.3.

Table 4.3. Environmental conditions

Date	Temperature (°C)	Wind Speed (Beaufort Scale)	Cloud cover (%)	Precipitation
3 rd Dec 2025	0	1	10	None

Constraints:

The PEA records the plant species present at the time of the survey; therefore, plants that appear during various times of the year may not be recorded. Botanical diversity was considered sufficient to classify and assess the habitats present.

4.2.1 Habitats

The survey site consisted of areas of non-cereal crops (c1d), tussocky arable field margins (c1a5), bare ground (u1c) and native hedgerows (h2a). An annotated habitat map is provided in Appendix 1.

Non-cereal crops (c1d) – A1

Parcel A1 consisted of a non-cereal crop under regular agricultural management (Figures 4.1 & 4.2), dominated by cultivated crop cover (Brassica species) with limited non-crop species present. Vegetation structure was uniform and low, reflecting the active management regime and limited botanical diversity.



Figure 4.1. Northeastern extent of A1 (facing south)



Figure 4.2. Close-up view of non-cereal crop vegetation within Parcel A1

Arable field margins tussocky (c1a5) – A2

Parcel A2 comprised a linear arable field margin located along the eastern extent of the site, adjacent to an access path (Figures 4.3 & 4.4). The margin supported a tussocky and structurally diverse sward. Species identified included spear thistle, teasel, broad-leaved dock, curled dock, chicory, cock's-foot, false oat-grass, cleavers, common nettle, ribwort plantain, brassica species, creeping bent, common dandelion, wild carrot, dove's-foot crane's-bill and fennel.



Figure 4.3. Field margin on east extent of site (facing south)



Figure 4.4. Field margin on east extent of site (facing northeast)

Parcels A3 non-cereal crops (c1d) & A4 bare ground (u1)

Parcels A3 non-cereal crops (c1d) & A4 bare ground (u1) formed the southern access route to the site. Parcel A4 was currently under construction as part of a development for an EV charging station to the south of the site.

Native hedgerow with trees (h2a) – H1

H1 consisted of a native hedgerow and formed the southern site boundary (Figure 4.5). H1 measured 2-4 m in width and 2-6 m in height. Wooded species present included hawthorn, blackthorn, dog rose, elder, spindle, snowberry and privet. Ground flora species present included ivy, common nettle, cock's-foot, Yorkshire fog, bramble, cow parsley, black mustard, spear thistle, hedge bedstraw, ribwort plantain and hedge bindweed. H1 was classified as in moderate condition due to the presence of canopy gaps and limited undisturbed ground along its length, despite being of desirable width and height.



Figure 4.5. H1 on southern site boundary (facing west)

Newly planted native hedgerow (h2a) – H2

H2 comprised a newly planted native hedgerow forming the southern, western and northern site boundaries, with individual plants protected by tree guards (Figures 4.6 & 4.7). The hedgerow was in the early establishment phase, with plants measuring approximately 30–40 cm in height at the time of survey. Species present included hawthorn, blackthorn, dog rose, elder, field maple and bramble. The hedgerow was classified as in moderate condition due to continuous cover and the lack of with and depth in development.



Figure 4.6. H2 on the southwestern site boundaries (facing northwest)



Figure 4.7. Close-up view of newly planted H2 with protective guards

Native Hedgerow (h2a) – H3

H3 consisted of a native hedgerow and formed the eastern site boundary with some newly planted sections (Figure 4.8). H3 measured 2-4 m in width and 2-6 m in height. Wooded species present included hawthorn, blackthorn, field maple, holly, elder and spindle. Ground flora species present included old man's beard, hedge bedstraw, cow parsley, common nettle and fescue sp. H3 was classified as in moderate condition due

to the presence of canopy gaps, and areas of disturbance with limited undisturbed ground.



Figure 4.8. H3 on eastern site boundary (facing southeast)

4.3 Habitat Suitability & Protected Species Surveys

4.3.1 Amphibians

The arable field margins within the site provide limited suitability for amphibians, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represented suitable habitat for the terrestrial phases of amphibians.

4.3.2 Badger

WBRC held records for badger within 1 km of the site.

There were no signs of badger noted during the surveys. However, it is considered possible that badger/s may frequent the site when dispersing and/or foraging on occasion.

4.3.3 Bats

WBRC held records for common pipistrelle, soprano pipistrelle, brown long-eared, greater horseshoe, lesser horseshoe, noctule, serotine, barbastelle, Daubenton's, whiskered, Natterer's and Leisler's within 2 km of the site.

Foraging & Commuting Bats

The non-cereal crop land provides limited suitability for bat foraging due to it being a monoculture with limited invertebrate suitability. The arable field margin and the hedgerows present across the site provide potential commuting and foraging habitat, with the hedgerows forming linear features within the wider agricultural landscape.

Roosting Bats

No potential bat roosting features were identified on site.

4.3.4 Birds

WRBC held records for red listed species such as house martin, corn bunting, yellowhammer, linnet, spotted flycatcher, wheatear, house sparrow, marsh tit, whinchat, starling, fieldfare and mistle thrush.

The hedgerows and arable field margins provide suitable nesting and foraging habitat for common farmland and hedgerow bird species. The non-cereal crop land may also provide seasonal foraging opportunities.

4.3.5 Dormouse

The hedgerows present on site represent suitable habitat for dormouse, although fragmented within the wider landscape.

4.3.6 Hedgehog

There were no signs of hedgehog noted during the surveys. However, it is considered possible that hedgehog/s may frequent the site when dispersing and/or foraging.

4.3.7 Invertebrates

The arable field margins and hedgerows provide suitable habitat for a range of common invertebrate species. The non-cereal crop land and areas of bare ground provide limited ecological value for invertebrates.

4.3.8 Reptiles

The arable field margins may provide a limited extent of habitat for reptiles, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represent suitable habitat for reptiles.

4.3.9 Other Mammals

WRBC held records for brown hare, rabbit and harvest mouse within 1 km of the site. Hedgerows and arable field margins may provide limited habitat and connectivity for these species within the wider agricultural landscape.

4.4 Biodiversity Metric Assessment

The site does not lie within Wiltshire and Swindon's Local Nature Recovery Strategy, therefore the site is considered to be of low strategic significance within the Biodiversity Metric.

The Biodiversity Metric Assessment demonstrates that the proposal will result in a net gain of 38.87 area habitat units (150.18% gain), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a net gain of 5.40 hedgerow units (91.11% gain) will be achieved through the creation of hedgerows and enhancement of hedgerows on site.

The baseline and proposed habitats, including habitat distinctiveness, condition, strategic significance and biodiversity units are presented in Table 4.4. Habitat area biodiversity unit change is summarised in Table 4.5. Hedgerow biodiversity unit change is summarised in Table 4.6. The baseline and proposed maps are presented in Appendix 4.

Table 4.4. Number of biodiversity units onsite at baseline. Area parcels are labelled with map reference number on the Biodiversity Metric Assessment Plans (Appendix 4).

Map ref	Habitat type	Area (ha) / length (km)	Habitat Distinctiveness	Habitat Condition	Strategic significance	Baseline biodiversity units
Area Habitats						
A1, A3	Non-cereal crops	11.7481	Low	N/A	Low	23.50
A2	Arable field margins tussocky	0.5661	Medium	N/A	Low	2.26
A4	Bare ground	0.0612	Low	Poor	Low	0.12
Total area of habitat biodiversity units						25.88
Hedges						
H1	Native hedgerow with trees	0.2595	Medium	Moderate	Low	2.08
H2	Native Hedgerow	0.8761	Low	Moderate	Low	3.50
H3	Native Hedgerow	0.0859	Low	Moderate	Low	0.34
Total area of hedgerow biodiversity units						5.92

Table 4.5. Biodiversity Metric area habitat biodiversity unit change summary

Biodiversity Unit Type	Description		Biodiversity Units
Area Habitat	On-site baseline area habitat biodiversity units		25.88
	On-site area habitat retention, creation, and enhancement of biodiversity units:		
	Retained	0.0454 ha non-cereal crops	0.09
	Created	7.7564 ha other neutral grassland 3.3487 ha modified grassland 1.0395 ha traditional orchards 0.0612 ha developed land; sealed surface 0.1242 ha lowland mixed deciduous woodland	64.66
	Enhanced	n/a	
Overall net unit change			+38.87
Overall on-site net % change			150.18%
Trading rules satisfied			Yes

Table 4.6. Hedgerows Biodiversity Unit Change Summary

Biodiversity Unit Type	Description		Biodiversity Units
Hedgerows	On-site baseline hedgerow biodiversity units		5.92
	On-site area habitat retention, creation and enhancement units:		
	Retained	0.2541 km native hedgerow with trees in moderate condition 0.8761 km native hedgerow in moderate condition	5.54
	Created	0.4109 km species-rich native hedgerow with trees 0.225 km species-rich native hedgerow	4.96
	Enhanced	0.0859 km native hedgerow in moderate condition to species-rich native hedgerow with trees	0.82
Overall net unit change			+5.40
Overall on-site net % change			91.11 %
Trading rules satisfied			Yes

5.1 Proposed Development

It is proposed to develop a solar farm to facilitate an EV Charging hub at Land at Chicklade Service Station, Chicklade, Wiltshire, SP3 5SS, with associated landscaping.

5.2 Designated Sites

5.2.1 Statutory Designated Sites

Statutory Sites of Nature Conservation Interest (International Importance)

The data search identified two sites within 10 km of the site.

Statutory Sites of Nature Conservation Interest (National Importance)

The data search identified no sites within 1 km of the site.

There are no perceived impacts to the statutory designated sites identified within the desk study area, due to the intervening distances and character of the designated sites. Please see the related Section 5.5 regarding bats and the bat consultation zone relating to the Chilmark Quarries SAC.

5.2.2 Non-statutory Designated Sites

Cratt Hill Down LWS

Cratt Hill Down is located 230 m to the northeast of the surveyed field. This site is designated through providing a gently undulating chalk site with unimproved calcareous grassland, improved grassland and mature scrub.

There are no perceived impacts to the habitats of this site identified within the desk study, due to the intervening distance and character of the designated site.

5.2.2 Priority Habitats

The desk study identified areas of deciduous woodland and lowland calcareous grassland within 1 km of the site. The closest priority habitat was deciduous woodland, which was located 5 m west of the survey site.

It is understood that lighting will not be introduced as part of the development, so no impacts on the adjacent priority habitat woodland are perceived.

5.3 Amphibians

The arable field margins within the site provide limited suitability for amphibians, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represent suitable habitat for the terrestrial phases of amphibians.

5.3.1 Common Amphibians

Common amphibians, such as common frog, common toad and smooth newt are less dependent on established ponds and have a widespread distribution.

The arable field margins within the site provide limited suitability for amphibians, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge.

Common toad is listed within Section 41 of the Natural Environment and Rural Communities Act (NERC, 2006) and must be considered through the planning process. Public bodies, including LPAs, are minded to ensure due regard to the conservation of biodiversity of such species. Such considerations may seek to protect, re-establish or create habitat suitable for amphibian's post development.

The proposed development will result in localised ground disturbance associated with the installation of a solar farm and EV charging infrastructure and a limited extent of hedgerow to be removed for an access gate. While the site provides limited suitability for amphibians, precautionary and mitigation measures will be implemented during construction and the landscaping of the site to avoid harm or injury and increase opportunities post-development, these are detailed in Section 6.

5.3.2 Great Crested Newt

The desk-based review identified no EPSLs or survey licence returns for great crested newt within 4 km of the site. The desk study also identified that the site is situated within a 'Green Zone' for great crested newts. The designation of this zone indicates that the area is less likely to contain important pathways of connecting habitat for this species. No ponds were also identified within 1 km of the site.

Due to the lack of records and aquatic breeding habitat for great crested newts nearby, it is considered that they are absent from the site.

5.4 Badger

WBRC held records for badger within 1 km of the site.

There were no signs of badger noted during the surveys. However, it is considered possible that badger/s may frequent the site when dispersing and/or foraging on occasion.

Precautionary measures should be employed to ensure no badgers are harmed or injured during the construction period of the development. These measures are detailed within Section 6.

5.5 Bats

WBRC held records for common pipistrelle, soprano pipistrelle, brown long-eared, greater horseshoe, lesser horseshoe, noctule, serotine, barbastelle, Daubenton's, whiskered, Natterer's and Leisler's within 2 km of the site.

The site is within the bat consultation zone relating to the Chilmark Quarries SAC.

5.5.1 Roosting Bats

No potential bat roosting features were identified on site.

5.5.2 Foraging & Commuting Bats

The non-cereal crop land provides limited suitability for bat foraging due to it being a monoculture with limited invertebrate suitability. The arable field margin and the hedgerows present across the site provide potential commuting and foraging habitat, with the hedgerows forming linear features within the wider agricultural landscape.

As a signatory to the Bonn Convention (Agreement on the Conservation of Bats in Europe) the UK has committed to protecting bat habitats, which necessitates the identification and protection from damage or disturbance of feeding areas and commuting routes.

There will be no lighting introduced and there will be an increase in opportunities for foraging & commuting bats associated with the habitat creation of woodland,

hedgerows, other neutral grassland and a traditional orchard as part of the development, these enhancement measures are detailed within Section 6.

5.6 Birds

WRBC held records for red listed species such as house martin, corn bunting, yellowhammer, linnet, spotted flycatcher, wheatear, house sparrow, marsh tit, whinchat, starling, fieldfare and mistle thrush.

The hedgerows and arable field margins provide suitable nesting and foraging habitat for common farmland and hedgerow bird species. The non-cereal crop land may also provide seasonal foraging opportunities.

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended).

It is understood that a limited extent of hedgerow for an access gate and extents of arable field margin and non-cereal crop land will be removed as part of the development. As such mitigation and compensation measures for birds will be required and are detailed in Section 6.

5.7 Dormouse

The hedgerows present on site represent suitable habitat for dormouse, although fragmented within the wider landscape.

There will be no lighting introduced and there will be an increase in opportunities for dormice associated with the habitat creation of woodland and hedgerows, detailed within Section 6. For the limited removal of an extent of hedgerow for an access gate, mitigation measures are also included within Section 6.

5.8 Hedgehog

There were no signs of hedgehog noted during the surveys. However, it is considered possible that hedgehog/s may frequent the site when dispersing and/or foraging.

Hedgehog are listed as rare and most threatened species under Section 41 of the Natural Environment and Rural Communities Act (2006) with public bodies, including LPAs, minded to ensure due regard to the conservation of biodiversity of such species.

Such considerations may seek to protect, re-establish or create habitat suitable for hedgehog post development.

Precautionary measures should be employed to ensure no hedgehogs are harmed or injured during the construction period of the development. These measures are detailed within Section 6.

5.9 Invertebrates

The arable field margins and hedgerows provide suitable habitat for a range of common invertebrate species. The non-cereal crop land and areas of bare ground provide limited ecological value for invertebrates.

The proposals consists of the development of a solar farm to facilitate an EV charging hub. The works will result in localised ground disturbance during construction, primarily within areas of non-cereal crop. The associated habitat creation as part of the landscaping will create habitat for invertebrates.

5.10 Reptiles

The arable field margins may provide a limited extent of habitat for reptiles, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represent suitable habitat for reptiles.

The proposed development will result in localised ground disturbance associated with the installation of a solar farm and EV charging infrastructure and a limited extent of hedgerow to be removed for an access gate. While the site provides limited suitability for reptiles, precautionary and mitigation measures will be implemented during construction and the landscaping of the site to avoid harm or injury and increase opportunities post-development, these are detailed in Section 6.

5.11 Other Mammals

WRBC held records for brown hare, rabbit and harvest mouse within 1 km of the site.

The hedgerows and arable field margins within the site provide limited habitat and connectivity for these species within the wider agricultural landscape. The proposed development will result in localised habitat loss and disturbance; however, given the

small scale of works and the nature of habitats affected and habitats created, impacts on these species are anticipated to be negligible.

5.12 Biodiversity Metric Assessment

The Biodiversity Metric Assessment demonstrates that the proposal will result in a net gain of 38.87 area habitat units (150.18% gain), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a net gain of 5.40 hedgerow units (91.11% gain) will be achieved through the creation of hedgerows and enhancement of hedgerows on site.

With the proposed habitat creation, the development currently achieves the minimum legal requirement of +10% for area and hedgerow habitat biodiversity units.

6.1 Ecological Impacts

It is proposed to develop a solar farm to facilitate an EV charging hub, with associated landscaping and localised ground disturbance to provide access and infrastructure. This will remove a limited extent of hedgerow for an access gate, extents of non-cereal crop land, arable field margins and bare ground. No introduction of lighting is proposed for the development.

The works could initially negatively impact common amphibians, foraging & commuting bats, badgers, birds, dormouse, hedgehog, invertebrates and other mammals, which may be present on site.

6.2 Avoidance/Mitigation Measures

To ensure the identified protected species are not harmed or injured during development the following measures should be undertaken for protected species (Appendix 2):

- **Retained Habitats:** Root protection areas (RPAs) of the retained hedgerows must be taken into account and buffered accordingly. This is to avoid direct damage through the compaction and disturbance of root protection areas which could cause the deterioration of the trees. Any retained trees within the hedgerows adjacent to the development will be protected with additional tree protection fencing for the duration of the proposed works and will be removed upon completion.
- **Vegetation Management:** The arable crop land and arable field margins should be maintained with a short sward height prior to and during the works to discourage amphibian and reptile colonisation.
- **Hedgerow Removal:** The limited extent of hedgerow removal for an access gate will need to be phased, sensitively timed and undertaken with ecological supervision to consider the potential presence of any amphibians, active bird nests, dormice and reptiles. Two approaches can be undertaken:
 - The removal can be undertaken in October avoiding the bird and dormouse nesting season, and the dormouse hibernation season, which extends from March – September and November – February respectively, under

supervision by an ecologist, searching for the presence of any protected species by a fingertip search.

- Alternatively, a two-stage approach can be undertaken, with vegetation above 20 cm removed first between November & February, and the remaining hedgerow below 20 cm removed between April & October under supervision by an ecologist, searching for the presence of any protected species by a fingertip search.
- **Timing of Construction Works:** All works are to be undertaken within daylight hours to ensure there is no disturbance to protected species from lighting or machinery.
- **Excavations:** Any excavations, which are to remain open overnight, should be fenced or covered to prevent any potential entrapment and/or injury of species such as badger or hedgehog.

6.3 Compensation and Enhancement Measures

Enhancement measures will be required to compensate for habitats lost and provide additional opportunities for the protected species on-site (Appendix 6). These will include:

- **Wildlife Provisions:** Three bat and three bird provisions are to be positioned upon on-site trees within the hedgerows at a minimum height of 3 m & 4 m, respectively (Appendices 7 & 8).
- **Orchard Planting:** Traditional orchard habitat will be created within the southwestern portion of the site through the planting of native fruit trees within a managed grassland sward. The orchard will comprise open-grown trees that support invertebrates, birds, amphibians, reptiles and foraging bats, with planting and long-term management undertaken in accordance with Sections 6.3.1 & 6.3.2.
- **Woodland Planting:** Lowland mixed deciduous woodland will be established along the eastern boundary of the site through the planting of native broadleaved trees. This woodland will enhance habitat connectivity and provide nesting, shelter and foraging opportunities for birds, dormice, invertebrates and bats, trees will be planted in accordance with Section 6.3.3.

- **Other Neutral Grassland:** Areas of other neutral grassland will be created across the northern and western extents of the site through the establishment of a species-rich grassland sward. The meadow will be managed to provide nectar and pollen resources for invertebrates and foraging opportunities for bats and birds, in accordance with Section 6.3.2.
- **Hedgerow Creation & Enhancement:** Native hedgerows and native hedgerows with trees will be created within the site, alongside the enhancement of existing boundary hedgerows through traditional laying and re-stocking. These works will strengthen habitat connectivity and provide valuable habitat for birds, bats and other wildlife, in accordance with Section 6.3.4.

6.3.1 Orchard Planting

Tree species to consist of native species that will provide foraging/nesting resources for birds and invertebrates.

Size: Standards, Height: 250 – 300 cm, Girth: 8 – 10 cm, Pot size: 20 L (or similar). All tree planting works and tree husbandry is to be carried out in accordance with BS 8545 2014: Trees from nursery to independence in the landscape.

All trees to be planted in pits 1 m² with depth dependent on planting stock root ball depth. The rootstock/ball to rest directly on underlying soil. Pits are to be backfilled with 80% clean topsoil and 20% approved compost to PAS100 and 100 gms granular fertiliser. Water in heavily after planting.

All trees are to be double-staked and tied (see Figure 2). Tree stakes and ties are to be removed at the end of years 3 to 5 following planting.

Trees planted in grass and shrub areas to be set within bare earth, 1 m diameter around the trunk, which is to be supplemented with approved bark mulch to depth of 75 mm after planting.

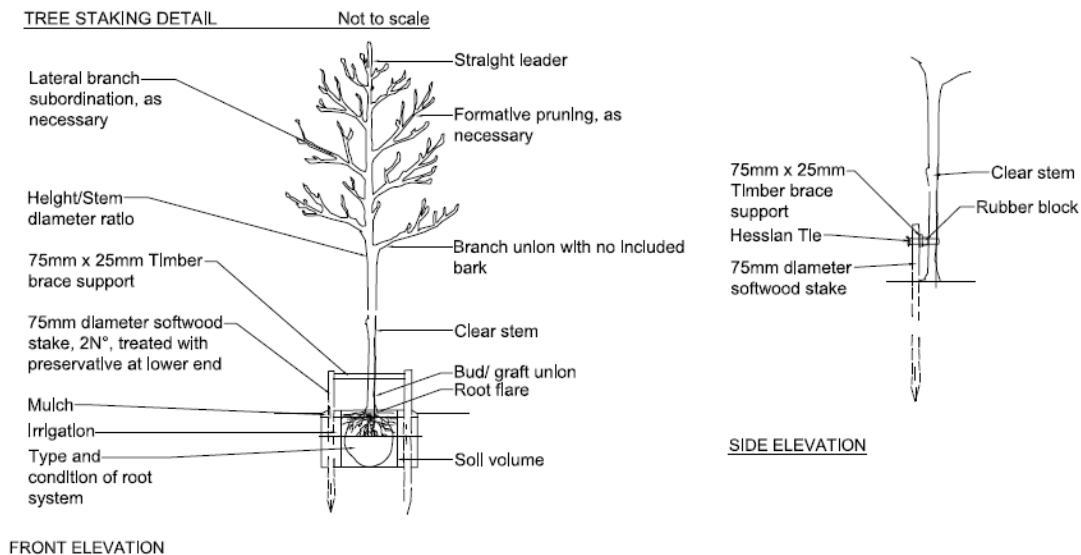


Figure 6.1. Tree Staking Detail

Management (Orchard)

Fruit trees (pip fruit e.g. apples and pears) to be shaped (formative pruning) when young (<1 year) to encourage a strong framework to bear the weight of fruit crops.

Pruning for stone fruit trees (plums and damsons) to be kept to a minimum as these trees do not respond well to pruning.

Trees to be inspected and where required maintained annually for the first 30 years, and biannually thereafter.

Pip Fruit Trees

Formative pruning – to be undertaken when <1 year old and results in a strong, evenly spaced network of branches

Structural pruning – to be undertaken when trees are dormant to remove weak, crowded and unhelpful growth. Maintains shape and increases growth.

Maintenance pruning – to be undertaken in summer to remove overcrowded and over-vigorous new growth. Increases quality of fruit through reducing the vigour of tree growth.

Restorative pruning – to be undertaken in winter and over a few years to reduce the stress on the tree. Involves reducing the height of the tree and removing heavily diseased or overcrowded growth to increase growth and/or rate of growth.

Stone Fruit Trees

Minimise pruning of stone fruit trees and only prune in summer between May and September. Remove excessive dead and damaged wood under the canopy to increase light penetration and when elderly trim the ends of horizontal branches to prevent them snapping off when brittle.

6.3.2 Seeding

Grassland to be seeded using EM6 – Meadow Mixture for Chalk and Limestone Soils from Emorsgate Seeds at a rate of 4 g per m².

Preparation and seeding are to be undertaken during spring or autumn and during suitable weather conditions (avoiding frost and/or waterlogged conditions).

The grassland areas are to be prepared as levelled soil at least 150 mm deep in accordance with BS 4428: 1989. Only machinery and tools suitable for the site conditions and work to be used. Hand tools only around trees, plants and in confined spaces. Soil to include a relatively fine tilth clear of weed species. Weed species may be removed by contact herbicide and/or physical removal.

Seed is to be surface sown and broadcast by hand, sow in overlapping sections. Seed not to be sown during persistent cold or dry winds or on waterlogged or excessively dry soils. Lightly rake immediately following scattering of seed. Seed to be firmed in with a roll, or by treading, to give good soil/seed contact

Growth/establishment to be monitored seasonally during first three years, with:

- Re-seeding of any failed areas; and,
- Hand removal of any excessive growth/spread of non-target species (such as nettles, thistle, docks etc.).

Ongoing grassland management to include:

- Bi-annual cutting in August and February/March (no shorter than approximately 75 mm) to allow the wildflowers to flower and set seed in the late spring and summer; and,

- All grass cuttings to be removed from the fields following each cut, to ensure fertility is kept to a minimum to encourage native wildflowers; and,
- Any extensive stands of vigorous undesirable plants such as nettles, thistle and docks are to be hand-pulled and removed from the fields through the spring and summer.

Monitoring/Remedial Action

During years 1 to 3, 5, 7 and 10, the grassland is to be annually inspected with any failed areas (< 80 % coverage) re-seeded with EM1 during the following autumn or spring.

Additionally, any areas with persistent non-target species, such as nettles, thistle, docks etc. (> 50 % coverage), are to be cut, scarified/re-scarified and re-seeded.

6.3.3 Tree Planting Specification

Species

Individual trees to consist of native species of local provenance that will provide habitat for a range of species.

Establishment

All tree planting works and tree husbandry is to be carried out in accordance with BS 8545 2014: Trees from nursery to independence in the landscape. All trees to be planted in pits 1 m² with depth dependent on the planting stock root ball depth. The rootstock/ball to rest directly on underlying soil. Pits to be backfilled with 80% clean topsoil and 20% approved compost to PAS100 and 100 g of granular fertiliser. Water in heavily after planting. Tree planting is to be carried out within the winter months (considered November to February inclusive).

All trees are to be double-staked and tied (see Figure 6.1). Tree stakes and ties are to be removed at the end of years 3 to 5 following planting. Trees planted in grass and shrub areas to be set within bare earth, 1 m diameter around trunk, which is to be supplemented with approved bark mulch to depth of 75 mm after planting.

Management

Trees to be inspected annually for the first 5 years, and biannually thereafter. Trees to include no or limited pruning, allowing growth in their naturally occurring shapes.

Any necessary tree works are to be carried out by an approved tree surgeon to BS 3998, with occasional intervention for:

- Crossing branches;
- Branches that grow back towards centre;
- Multiple leading stems, where single leader is desired; and,
- Closely spaced branches; and,
- Low branches or sucker/s.

Establishment maintenance for planting to be undertaken annually for the first 5 years, including watering, weed control, and replacement of any failures to original specification in the appropriate planting season following failure. During the first year after planting, it may be necessary to water during periods of prolonged periods of dry weather. In such circumstances, planting is to be watered to field saturation using clean fresh water on a weekly basis.

6.3.4 Hedgerow Creation

All hedgerow planting should be carried out in accordance with BS4428:1989, Code of practice for general landscape operations (excluding hard surfaces).

The planting area to consist of topsoil, free from undesirable plant species. All hedgerow shrubs will be bare rooted, or container grown in rigid pots, minimum size 2 L, and where planting shall be backfilled with clean topsoil and/or supplemented with woodchip mulch to depth of 75 mm. Hedgerow shrubs must not be pot-bound or waterlogged prior to planting out. Hedgerow shrubs will be planted in double line spacing 500 mm apart, with plants planted alternately, with 4 plants per metre. Hedgerow shrubs will be protected by 600 mm high tree guards supported by 900 mm high bamboo canes to prevent rabbit/deer damage.

Water as necessary to secure healthy establishment and to avoid the need for replacement due to dry periods (less than 30 mm rainfall at the end of a four-week period).

Ground Flora Seeding

The ground vegetation of the hedgerows will be over-seeded with Emorsgate Seeds EH1F (wildflowers for hedgerows mixture) 270 g (1.5 g per m²) scattered evenly along the length of the hedgerow where the ground has been disturbed. Lightly harrow or rake immediately following the scattering of seed.

Management

During the first 3 years, during winter, the hedgerow will be trimmed lightly, in order to establish and encourage dense vegetation growth.

After three years, the boundary hedgerows will be:

- Managed through traditional hedge laying/steeping once every 10 to 15 years.

Note: Hedgerow laying/steeping to only be undertaken between 31st December and 28th February.

Target hedgerow growth to be dense and continuous to grow to a minimum height and width of 3 m. At least two trees per length of existing hedgerow to be allowed to mature as standard tree. Wooded hedgerow vegetation to be allowed to overhang into gardens/field; no removal of ivy; standing or fallen deadwood to be retained (where H&S allows).

6.4 Biodiversity Net Gain Assessment

To achieve the required +10% biodiversity net gain, the landscaping proposals include on-site habitat creation and enhancement measures. The Biodiversity Metric Assessment calculated that the percentage gain for area habitats will be +150.18% (38.87 units), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a +91.11% gain (5.40 units) will be achieved for hedgerow habitats through the creation and enhancement of native hedgerows.

6.5 Conclusion

The Biodiversity Metric Assessment (BMA) results in an 150.18% gain for area habitats and a 91.11% gain for hedgerow habitats, with mitigation, compensation and enhancement measures provided for protected species. Consequently, the development is considered to demonstrate a positive biodiversity impact at the site level.

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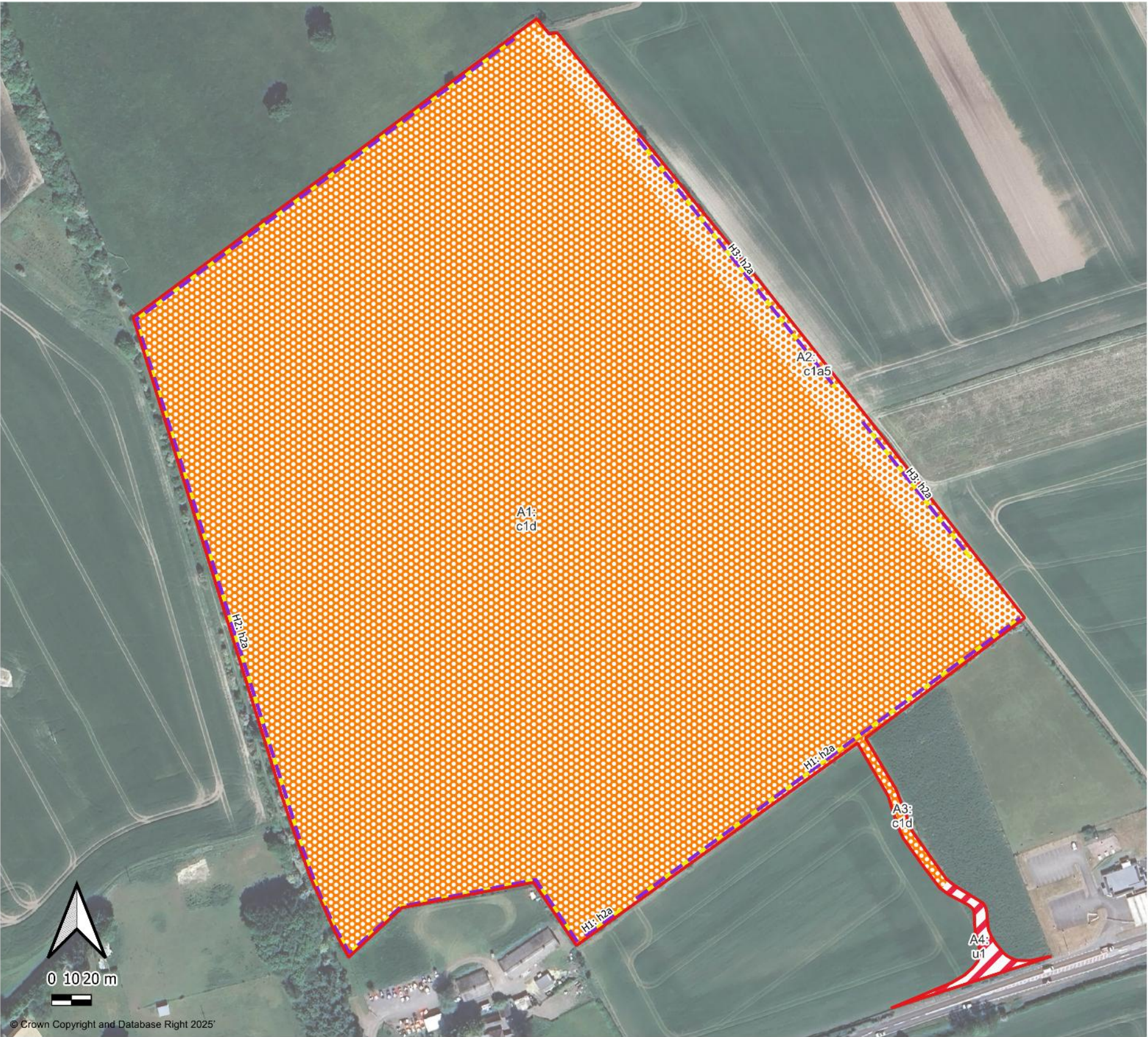
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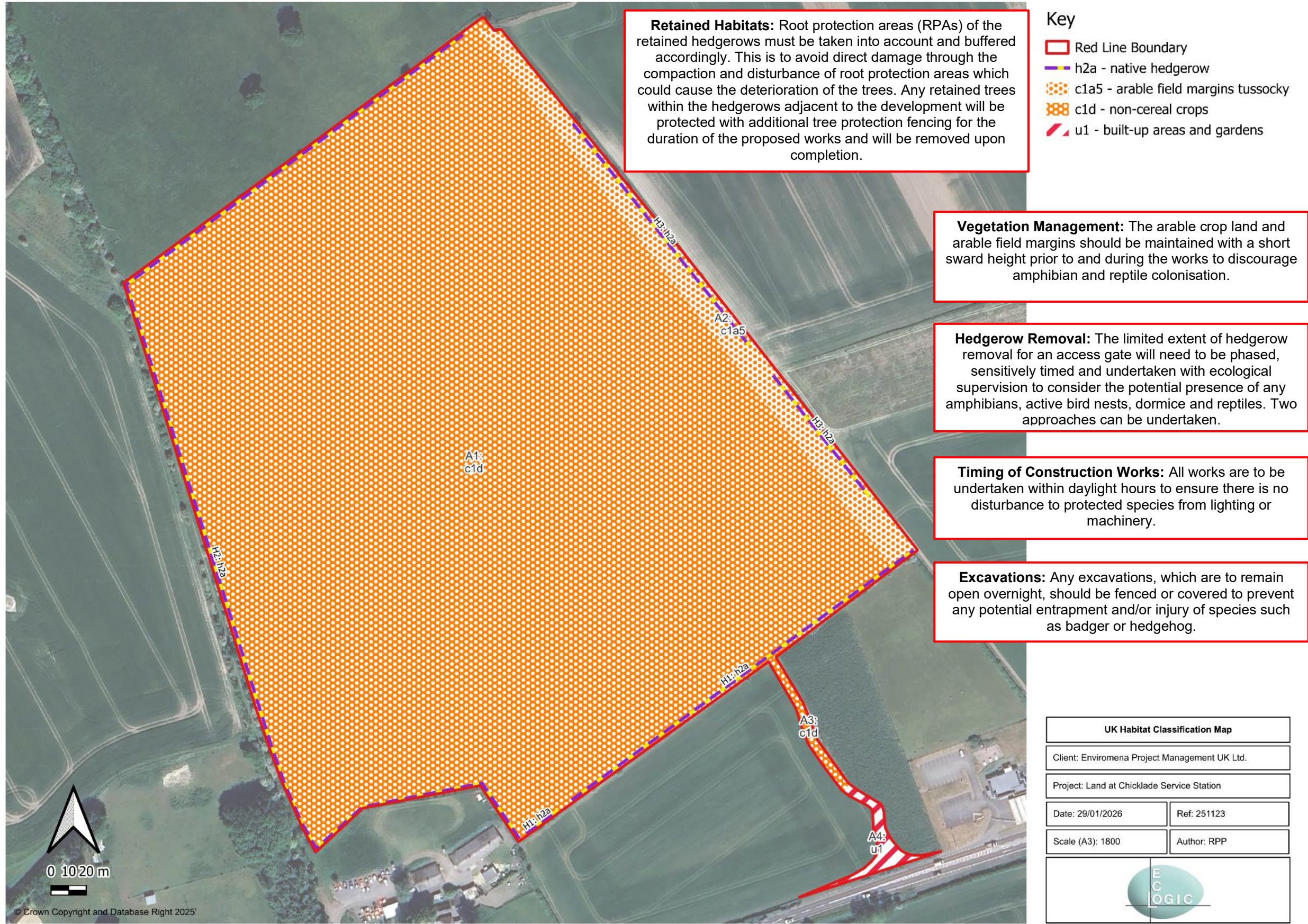
APPENDICES

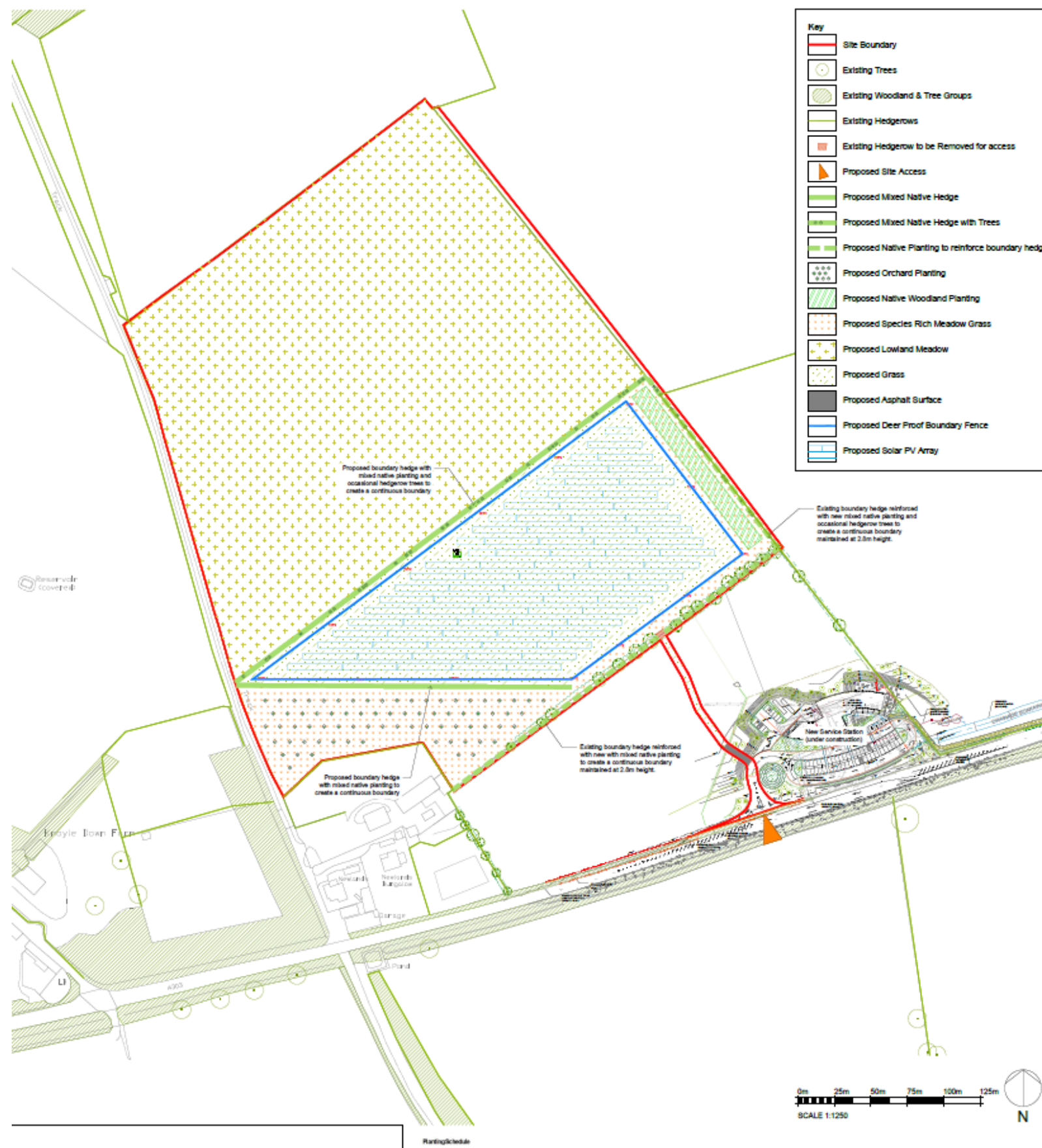
- Appendix 1: UK Habitat Classification Map
- Appendix 2: Constraints Plan
- Appendix 3: Proposed Plan
- Appendix 4: Biodiversity Net Gain Plan – Baseline & Post Development
- Appendix 5: Species List
- Appendix 6: Compensation & Enhancement Plan
- Appendix 7: Examples of Bat Roosting Provisions
- Appendix 8: Examples of Bird Nesting Provisions



- Key
- Red Line Boundary
 - h2a - native hedgerow
 - c1a5 - arable field margins tussocky
 - c1d - non-cereal crops
 - u1 - built-up areas and gardens

UK Habitat Classification Map	
Client: Enviromena Project Management UK Ltd.	
Project: Land at Chicklade Service Station	
Date: 29/01/2026	Ref: 251123
Scale (A3): 1800	Author: RPP
	







- Baseline Key**
- Red Line Boundary
 - Native hedgerow
 - Native hedgerow with trees
 - Arable field margins tussocky
 - Non-cereal crops
 - Bare ground

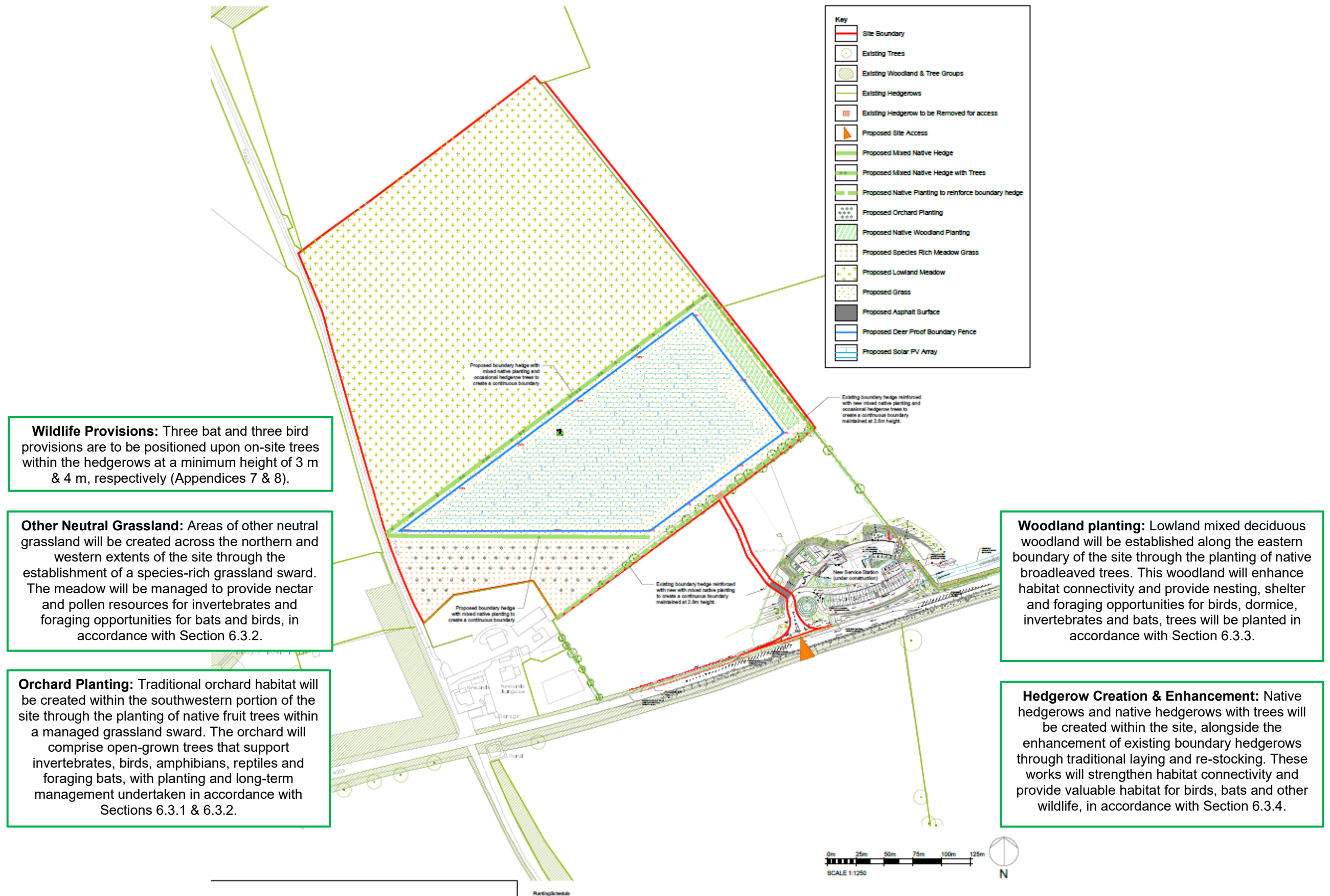


- Proposed Key**
- Red Line Boundary
 - Native hedgerow
 - Native hedgerow with trees
 - Species-rich native hedgerow
 - Species-rich native hedgerow with trees
 - Cereal crops
 - Developed land; sealed surface
 - Lowland mixed deciduous woodland
 - Modified grassland
 - Other neutral grassland
 - Traditional orchards

Biodiversity Metric Assessment	
Client: Enviromena Project Management UK Ltd.	
Project: Land at Chicklade Service Station	
Date: 29/01/2026	Ref: 251123
Scale (A3): 1:3500	Author: RPP

Common Name	Scientific Name
Plants	
Black mustard	<i>Brassica nigra</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus fruticosus</i> agg.
Brassica species	<i>Brassicaceae</i> sp.
Broad-leaved dock	<i>Rumex obtusifolius</i>
Chicory	<i>Cichorium intybus</i>
Cleavers	<i>Galium aparine</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common dandelion	<i>Taraxacum officinale</i> agg.
Common fescue	<i>Festuca rubra</i> agg.
Common nettle	<i>Urtica dioica</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping bent	<i>Agrostis stolonifera</i>
Curled dock	<i>Rumex crispus</i>
Dog rose	<i>Rosa canina</i> agg.
Dove's-foot crane's-bill	<i>Geranium molle</i>
Elder	<i>Sambucus nigra</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Fennel	<i>Foeniculum vulgare</i>
Fescue species	<i>Festuca</i> sp.
Field maple	<i>Acer campestre</i>
Hawthorn	<i>Crataegus monogyna</i>
Hedge bedstraw	<i>Galium mollugo</i>
Hedge bindweed	<i>Calystegia sepium</i>
Holly	<i>Ilex aquifolium</i>
Old man's beard	<i>Clematis vitalba</i>
Privet	<i>Ligustrum vulgare</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Snowberry	<i>Symphoricarpos albus</i>
Spear thistle	<i>Cirsium vulgare</i>
Spindle	<i>Euonymus europaeus</i>
Teasel	<i>Dipsacus fullonum</i>
Wild carrot	<i>Daucus carota</i>
Yorkshire fog	<i>Holcus lanatus</i>
Mammals	
Badger	<i>Meles meles</i>
Barbastelle	<i>Barbastella barbastellus</i>
Brown hare	<i>Lepus europaeus</i>
Brown long-eared bat	<i>Plecotus auritus</i>
Common pipistrelle	<i>Pipistrellus pipistrellus</i>
Dormice	<i>Muscardinus avellanarius</i>
Fieldfare	<i>Turdus pilaris</i>
Great crested newt	<i>Triturus cristatus</i>
Greater horseshoe bat	<i>Rhinolophus ferrumequinum</i>
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>
Harvest mouse	<i>Micromys minutus</i>

Common Name	Scientific Name
House sparrow	<i>Passer domesticus</i>
Hedgehog	<i>Erinaceus europaeus</i>
Linnet	<i>Linaria cannabina</i>
Marsh tit	<i>Poecile palustris</i>
Mistle thrush	<i>Turdus viscivorus</i>
Rabbit	<i>Oryctolagus cuniculus</i>
Serotine	<i>Eptesicus serotinus</i>
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>
Spotted flycatcher	<i>Muscicapa striata</i>
Starling	<i>Sturnus vulgaris</i>
Wheatear	<i>Oenanthe oenanthe</i>
Whinchat	<i>Saxicola rubetra</i>
Yellowhammer	<i>Emberiza citrinella</i>



Vincent Pro Bat Box

Material: Wood

Width: 180 mm
Height: 720 mm
Depth: 235 mm
Weight: 4.1 kg

Position: In a south facing location, minimum of 3 m above ground level.

**General Purpose Bat Box**

Material: Wood Concrete

Diameter: 180 mm
Height: 360 mm
Weight: 4.5 kg

Position: In a south facing location, minimum of 3 m above ground level.

**Bark Box – Standard Bat Box**

Material: Recycled polyamide combined with cement and recycled cellulose fibre mix.

Width: 130 mm
Height: 330 mm
Weight: 6 kg

Position: In a south facing location, minimum of 3 m above ground level.



Vivara Pro Barcelona Woodstone Open Nest Box

Suitable for wren, robin, pied wagtail and blackbird

Material: Woodstone

Height: 240 mm

Width: 190 mm

Depth: 175 mm

Position: Externally, at a minimum height of 3 m

**Vivara Pro Seville 32mm Woodstone Nest Box**

Suitable for: House sparrow, blue & great tit, nuthatch

Material: Woodstone

Height: 310 mm

Width: 200 mm

Depth: 200 mm

Weight: 6.9 kg

Position: Externally, at a minimum height of 3 m

**Eco Sparrow Tower**

Suitable for: House sparrow and individual blue & great tits

Material: Recycled LDPE plastic & FSC certified OSB

Height: 650 mm

Width: 170 mm

Depth: 170 mm

Weight: 2.8 kg

Position: Externally, at a minimum height of 2 m



4. Appendix 4: Climate Change

Appendix 4.1 – Wiltshire Climate Strategy Delivery Plan 2025

Wiltshire Climate Strategy Delivery Plan 2025

Introduction

Wiltshire Council acknowledged a climate emergency in February 2019 and committed to becoming carbon neutral as an organisation by 2030. The council also committed to seeking to make the county of Wiltshire carbon neutral in the same timeframe.

The council adopted its Climate Strategy in February 2022, which sets out objectives and 'areas of focus' to decrease greenhouse gas emissions and increase resilience to climate change for the county of Wiltshire for the period 2022 - 2027.

Delivery plans were put in place in 2022 to set out the steps towards implementation of the strategy. The [Carbon Neutral Council Plan 2022-24](#) and the [Climate Strategy Delivery Plan 2022-24](#) have been reviewed during 2024, both in terms of progress towards carbon reduction and climate adaptation outcomes and performance against the actions that the council committed to.

This plan now sets out the focus for the council's action on climate change for 2025.

Whilst this plan sets out priorities for one year, it also includes medium and longer-term implementation steps that will be necessary and puts this into context of where we are in relation to the long term goals (pathways to carbon neutral).

Summary of Key Areas of Opportunity in 2025

Key areas of opportunity for the coming year will be:

- To support residents in improving energy efficiency of their homes, which can also help with comfort and bills through retrofit programmes and support
- Supporting and encouraging developers to build to net zero standards, while progressing the Wiltshire Local Plan with its new policies on net zero development, embodied carbon and renewable energy
- Adopt and implement the Local Transport Plan 4 which has decarbonisation of transport at its centre
- Produce an Adaptation Plan and develop projects to contribute to ensuring the county is prepared for the impacts of climate change
- Develop an Offsetting Strategy and projects to help the council offset its residual emissions, and encourage others in Wiltshire to do the same
- Embedding climate considerations as business as usual for the council, including carbon literacy training
- Develop a Local Area Energy Plan, including supporting community-led energy projects
- Continue the council property carbon reduction programme, and implement a roadmap to scope 3 emissions reduction
- Continue to embed climate awareness and objectives into the council's business as usual delivery

We will seek to deliver tangible results through specific projects, working in collaboration with relevant partners to develop projects and bids for funding that help to deliver the following:

- Council property decarbonisation
- Support council suppliers to reduce emissions and adapt to climate change
- Land or nature-based projects that aim to achieve climate objectives such as carbon sequestration, biodiversity net gain and flood mitigation
- Retrofit projects for community buildings and homes
- Community energy projects
- Business support and grants for energy efficiency
- Community climate action and awareness
- Sustainable transport infrastructure and encourage take up of available options

The Wiltshire Climate Strategy principles mean that we will follow the greenhouse gas hierarchy, aim to achieve a just transition and maximise co-benefits of climate measures.

Wiltshire Council Climate Strategy principles

- Be inclusive – ensuring the transition to a low carbon, climate resilient future is accessible to all sectors of society, including our rural communities and businesses.
- Be evidence led – using the best available science and analysis, while working to increase knowledge in areas where there are gaps. Our evidence base has been informed by feedback from a wide range of stakeholders.
- Follow the Greenhouse Gas Hierarchy, making sure that low carbon technologies and offsetting do not take the focus away from reducing energy use in the first place.
- Deliver co-benefits – where action to tackle carbon emissions also yields health or financial benefits, such as air quality and physical exercise benefits from walking and cycling.
- Further embedding climate considerations in decision-making.

Measuring success

Progress will be tracked against Key Performance Indicators, reporting annually to Cabinet and Full Council and published on the council's website. In addition, the governance and internal monitoring processes that support implementation of the Climate Delivery Plan have been updated and strengthened to enable the council and all services involved in delivery, to monitor progress and adjust actions as necessary, using quarterly reviews.

The county-wide emissions reduction will ultimately be shown by the Key Performance Indicators for 'Wiltshire-wide emissions' which draws on national government data (DESNZ).

Overview of the plan

The following sections set out what the council will focus on in 2025 and how this contributes to our long-term goals. The plan is structured according to the Delivery Themes of the Climate Strategy¹

For each deliverable, carbon impacts are shown where this is measurable and attributable, and indicators are specified to track how each deliverable will contribute to achieving the outcomes of carbon reduction and climate resilience. Impacts and co-benefits are shown whereby co-benefits align with Business Plan and other strategic objectives.

Summary of ‘areas of focus’ and ‘deliverables’

Area of Focus	Deliverable
Carbon Neutral Council.	
C1. Council Building Decarbonisation	Develop and implement a retrofit and renewable Energy Programme on the council's operational estate.
C2. Fleet Decarbonisation	Achieve a carbon-neutral council fleet by 2030.
C3. Staff Travel	Encourage staff to travel to work by sustainable travel options
C4. Supply Chain and Scope 3	Achieve carbon reduction and resilience in supply chain.
C5. Household Waste Management	Develop the council's waste management service to help achieve climate objectives
Transport	
T1. Electric Vehicles	Increase availability of Electric Vehicle (EV) chargepoints to promote the transition from fossil fuel to EVs.
T2. Active Travel	Increase options for active travel across Wiltshire.
T3. Sustainable Travel	Improve sustainable transport in Wiltshire.
Homes and the Built Environment	
B1. Domestic Retrofit	Develop and implement a comprehensive Retrofit Strategy that is available to all housing centred on enabling more homeowners to take up energy assessments and home energy improvements.
B2. Commercial and community Retrofit	Develop programmes to support decarbonisation of commercial and community buildings
B3. New Builds and Land Use	Promote low-carbon, climate-resilient development and sustainable land use planning

¹ The original ‘Resources and Waste’ theme has been merged with ‘Green and Circular Economy’ and into ‘Carbon Neutral Council’ for the activities that relate to council’s operational emissions.

Natural Environment, Food and Farming	
N1. Nature recovery, carbon and resilience	Implement a Local Nature Recovery Strategy and Green and Blue Infrastructure Strategy to protect biodiversity, absorb carbon and increase resilience.
N2. Tree Planting	Increase tree planting in Wiltshire, to sequester carbon and enhance outcomes for biodiversity/nature recovery and resilience.
N3. Sustainable agriculture	Work with farmers and landowners on nature recovery, carbon reduction and climate resilience projects
Energy	
E1. Community-led Energy	Support the development of community energy groups and empower communities to develop energy projects.
E2. Local Area Energy Plan	Develop and begin implementation of LAEP framework, to identify strategic priorities for grid upgrades, and create an energy system to support the net zero transition.
Green and circular economy	
G1. Upskilling and Green Skills	Increase green skills and training opportunities to support delivery of climate objectives.
G2. Commercial decarbonisation and Circular Economy	Work with Wiltshire organisations, contractors, and businesses to reduce carbon emissions from their operations, including commercial waste and supporting circular economy initiatives.
Climate Adaptation	
A1. Climate Adaptation	Implement a Climate Adaptation Plan that enhances the resilience of Wiltshire Council and Wiltshire communities to climate change.
Cross-cutting, enabling and empowering	
X1. Staff Engagement and Training	Develop and roll-out Carbon Literacy Training across council staff, and support staff to integrate climate objectives into business-as-usual.
X2. Decision-Making and processes	Embed Climate Objectives into Council Processes and Decision-Making
X3. Green finance and carbon offsetting	Develop green finance, carbon accounting and offsetting, to enable projects that sequester carbon, avoid carbon emissions, and adapt to climate change.
X4. Engagement with stakeholders	Provide information and actively engage with stakeholders to maximise the impact on climate change in Wiltshire
X5. Community Climate Action	Empower Wiltshire communities to contribute towards climate action

1. Carbon Neutral Council

The Climate Strategy Objectives for a 'Carbon Neutral Council' are:

- To become carbon neutral as an organisation by 2030
- Provide leadership locally and nationally, sharing learning

Wiltshire Council, has committed to achieving carbon neutrality by 2030, focusing on cutting direct emissions from our own operations (Scope 1 and 2). We are also tackling Scope 3 emissions from our outsourced services and purchases.²

The [Carbon Neutral Council Plan 2022-24](#) focussed on reducing emissions from council buildings and fleet, embedding climate considerations into council processes, understanding and reducing Scope emissions by working with council suppliers, and reviewing the councils Climate Adaptation Plan. The 'Pathways report'³ informs interim targets and actions.

Due to the actions undertaken, council emissions continue to decrease, and the same 'areas of focus' remain important for 2025.

For the full breakdown of council emissions, see our annual [Greenhouse Gas Report 2024](#).

The ongoing activities and new priorities for 2025 are set out in the following tables.

C 1	Area of Focus:	Council building decarbonisation
Deliverable:	Develop and implement a Retrofit and Renewable Energy Programme on the council's operational estate	
Outcome:	Council carbon reduction	
Governance:	Responsible directorate / service: Director of Assets; Head of Strategic Asset & FM. Service lead: Energy Team; HEEP programme. Stakeholders: Climate Team; All services using buildings, particularly leisure managers.	
Overview: <u>Emissions directly controlled by the council (Scope 1 and 2)</u> The largest source of the council's Scope 1 and 2 emissions is buildings. The council has identified 2 main pathways to reducing carbon emissions from its buildings. These are: • To reduce direct Scope 1 emissions from burning fossil fuels such as gas and oil at our sites by switching heating fuels to electricity or biomass. • To eliminate all scope 2 carbon emissions from electricity use by generating on site renewable energy and by purchasing the remaining demand through a green electricity tariff. These are underpinned by an overarching drive to increase efficiency and reduce overall energy demand.		

² The Carbon Neutral Council Plan, page 4-5, explains the council's operational emissions and scopes

³ [Wiltshire Council Carbon Emissions Baseline and Reduction Pathways](#), Anthesis 2022a

A pipeline of projects has been developed within the Property Carbon Reduction Programme. The programme covers projects that are reducing both scope 1 (emissions from combustion) and scope 2 emissions (emissions from electricity).

The programme was allocated £10.4m budget in 2019, and the council has also allocated an additional £3.5m to a Carpark Solar Canopy budget.

The programme covers:

- energy efficiency projects to reduce energy use and costs,
- renewable energy projects to improve resilience and reduce costs,
- carbon reduction projects to reduce building related carbon emissions by replacing heating from fossil fuel sources with low carbon fuel sources such as electricity and biomass
- financial contribution to improved energy efficiency or low carbon measures in newly built assets.

The council will fully investigate mechanisms for achieving carbon neutrality on electricity use, in addition to the green tariff, such as entering into a Power Purchase Agreement (PPA) directly with a renewable energy generator. That may be a Community Energy generator or via a commercial scheme.

The council will also use the Environmental Mitigation Framework, to review council sites for potential renewables projects and carbon offsetting through nature-based solutions.

Sections B3, C4, and X2 also include measure that contribute to the carbon neutral council, and overseen by assets directorate.

Scope 3

The Assets Directorate will explore how it can monitor, measure and reduce scope 3 emissions from property in the future.

The council has a stock of 5,300 council houses, the emissions from which are scope 3. The Housing Energy Efficiency Programme (HEEP) designed to improve the energy performance of the housing stock, reducing energy consumption, carbon emissions, and the cost of household bills, with the aim of all council homes to be EPC B. The programme will continue to be delivered over the next 8 years (overall reduction of between 15,000 and 20,000 tonnes of carbon emissions).

The Council House Build Programme (CHBP) will continue to deliver new builds to net zero carbon in operation, on council-led schemes.

Council house acquisitions aim for new builds to have a minimum EPC rating of C, and for non new builds the aim is for minimum EPC E and be capable of improving.

All commercial lettings are now subject to Minimum Energy Efficiency Standards (MEES) regulations and works are undertaken prior to letting.

Property decarbonisation - What's next for 2025

- Our asset management strategy will clarify the future roles and functions of our assets, which will enhance planning for net zero and resilient properties.
- Continue to use energy usage data for better carbon reduction.
- Rolling out further upgrades at high-energy sites.
- Exploring smaller scale opportunities to generate electricity, that can be fed back to the grid rather than used within buildings, providing a carbon offset opportunity.
- Decarbonising heating at five additional sites.
- Developing an offsetting strategy for council emissions.
- Installing a second solar car park canopy at Springfield Community Campus

- 'Leisure, Culture and Communities' teams will continue to focus on understanding energy management and reducing buildings usage.

Longer term activity

- Consider opportunities for council to develop its own large scale renewable energy development, which could provide a supplement or alternative to the green tariff.
- Review energy procurement and consider purchasing from additional renewable energy sources
- Install energy efficiency measures at all 5,300 of our properties, where feasible, over the next eight to nine years through the HEEP programme.
- Explore how to measure and monitor scope 3 emissions from council buildings

Impact:	Direct emissions reduction impact: High Overall impact: High Priority: High Rationale: Decarbonisation programme is critical to carbon reduction of the council operational estate. Reducing carbon emissions from approx. 4,500 tonnes CO ₂ e in 2020, to 250 tonnes CO ₂ e in 2030. Impacts of green tariff = approx. 3670 tonnes in 2023/24. Council Home Energy Efficiency Programme has an impact on tenant cost of living as well as reducing carbon emissions.	
Co-benefits:	Capacity building and efficiency; Leading by example	
KPI:		Target:
C1 Wiltshire Council's Carbon Footprint		Carbon neutral by 2030 (Emissions reduced to 250t CO ₂ e by 2030, and this is offset). Interim annual targets, as per Anthesis pathway.
C5 Renewable energy generated on the council estate (kWh)		To generate a minimum of 20% of the total operational estate electricity use from renewable site-based assets.
C7 Tonnes CO ₂ e saved through energy efficiency and renewable energy projects on the council estate (reduction compared to annual baseline emissions)		3,446 t CO ₂ e by 2030 (Anthesis) To be reviewed in October 2025
C9a Energy consumption (kWh) of gas used in corporate buildings		292,560 kWh by 2030 (Anthesis) To be reviewed in October 2025
C9b Energy consumption (kWh) of electricity used in corporate buildings		24,524,018 kWh by 2030 (Anthesis) To be reviewed in October 2025
B2 number of council homes retrofitted for energy efficiency/renewable energy(cumulative total) – Review: change to 'number of measures implemented'. Review in 2026: consider adding a KPI to show carbon savings from the HEEP programme, using data from carbon credits sold to HACT.		Retrofit all council homes to EPC B by 2030/31

C 2	Area of Focus: Council fleet decarbonisation
Deliverable:	Achieve a carbon-neutral council fleet by 2030
Outcome:	Council carbon reduction
Governance:	Responsible directorate / service: Director of Highways and Transport; Head of Highway Operations. Service lead: Fleet Services Stakeholders: Climate Team; Passenger Transport; Housing Team; Waste services; Any services using Wiltshire Council fleet. FM (for electric) Fleet Governance Board
Overview: The Fleet Strategy 2023-2030 sets out how the council will use, run, manage and optimise fleet that is owned or leased by the council. The approach is for a transition to electric lighter vehicles – cars and vans and e-bikes – and also for larger vehicles where possible, with alternative fuels such as HVO where required. Measures also include using telematics data to inform driver training, and vehicle and EV charging needs. The council's baseline fleet transition to carbon neutral travel has capital and revenue funding allocated through to 2029, with cost savings / avoidance taken into account. The existing Fleet Strategy actions and baseline includes the council's core fleet, however there are several additional areas (Passenger Transport and Housing) that were not part of the original baseline and need to be fully incorporated into the Fleet Strategy to achieve the corporate ambition. This will form an integral part of the work in 2025, with Passenger Transport Unit and the Housing Service already having identified a capital requirement and revenue for their fleet provision and will produce a carbon reduction plan in due course. Housing Service has commenced the transition to electric vehicles, with further action planned. The Fleet Strategy covers Scope 1 and 2 emissions of vehicles owned or controlled directly by the council, whereby Scope 1 emissions are caused by direct combustion of fossil fuels or alternative fuels such as HVO, and Scope 2 emissions from electricity used by vehicles. The Fleet Strategy principles are to be incorporated into future vehicle procurement or contract arrangements for additional vehicles that are accounted for under Scope 3 (i.e. refuse collection vehicles see Household Waste Management). Electric vehicle chargepoints are being installed to support the transition to electric vehicles. A watching brief on the best technology to transition the larger / heavier vehicles with Hydrogenated Vegetable Oil (HVO) being the interim fuel that many councils and companies are using. The new Depot Plan aims to house vehicles in the area of work demand and support the transition to electric and other alternative fuels. <u>Fleet decarbonisation – What's next for 2025</u> • An additional 70 charge points will be installed across council sites, to enable further decarbonisation of fleet. • 50 further vehicles will follow once the charge points have been installed. • The first depot renewal project will look at how EV charging at depots can support fleet decarbonisation. • The Passenger Transport Unit Service is trialling an electric Demand Response Transport in the Warminster Mere area <u>Longer term activity</u>	

• Depot renewal programme supports transition to low carbon fleet by incorporating EV chargepoints and futureproofed by designing in flexibility for other alternative fuels • All services purchasing and using council fleet will develop a carbon reduction plan and integrate this into vehicle replacement plans.	
Impact:	Direct emissions reduction impact: Medium Overall impact: Medium Priority: High Rationale: Fleet decarbonisation is a key part of emissions reduction in relation to council operations, though not as high as the impact of council buildings. Direct carbon savings can be achieved through replacement and efficient use of the council's core fleet: - Reducing fleet emissions from baseline of 837 t CO₂e to 703 t CO₂e (Year 1-2) - Further reduce to 613 t CO₂e (Year 3-4) - Reach 533 t CO₂e (Year 5-6) - Achieve 256 t CO₂e (Final phase before 2030) Additional fleet within Passenger Transport Unit (PTU), Housing and Waste can be decarbonised in accordance with the Fleet Strategy principles. Baseline emissions from Housing and PTU services are 95.58 tCO₂e.
Co-benefits:	Air quality; Health and Wellbeing; Fair and inclusive; Vibrant, well-connected communities
KPI:	Target:
C4 Number of EV charge points at council sites (workplace chargepoints)	20% annual increase year on year. Interim targets as per Fleet Strategy: 90 chargepoints for 2025/26
Review: New KPI 'Electric vehicles as % of all fleet'	Targets from Fleet Strategy

C 3	Area of Focus:	Staff Travel
Deliverable:	Encourage staff to travel to work by sustainable travel options	
Outcome:	Reducing council's scope 3 emissions	
Governance:	Responsible directorate / service: HR &OD; Highways and Transport; Service lead: HR / staff engagement. Stakeholders: Climate Team; HR &OD; Parking services.	
Overview: With over 5,000 staff at Wiltshire Council, commuting patterns have a role to play in reducing emissions. Refresh of Staff Travel Plans and parking strategy will be a focus going forward, with the first to be produced in conjunction with the developing plans for the new Trowbridge Leisure Centre adjacent to County Hall. Staff surveys will help to understand current patterns and needs, staff travel planning will be complemented by promotion of the schemes offering bicycles and ultra-low emissions vehicles through a salary sacrifice mechanism.		
Staff Travel – What's next for 2025		

- Continue to promote schemes to staff, promoting sustainable travel, and allowing purchase of bikes and ultra-low emissions vehicles through salary sacrifice.
- Work with staff on a new travel and parking strategy for County Hall, in tandem with development of the new Trowbridge leisure centre

Longer term activity

- Develop and update travel plans for all Wiltshire Council office hubs

Impact:	Direct emissions reduction impact: Low Overall impact: Medium Priority: Medium Rationale: This deliverable aims to work with staff to encourage them to make switches to more sustainable commuting, where possible. It is challenging given the needs of many staff to drive to work, dependent on their mobility, location and individual circumstances, caring duties etc. Therefore, the potential to shift to other modes is unknown at present. Through this work there is the added impact of having conversations about climate impacts and the knock-on effects of staff disseminating this information further.	
Co-benefits:	Air quality; Health and Wellbeing; Fair and inclusive; Vibrant, well-connected communities	
KPI:		Target:
No KPI to date. Suggestions TBC:		
Review – new KPI: Proportion of staff using private car as a single occupant		Reduced % using private car as a single occupant.
Review – new KPI: Number of Cycle Scheme uptakes		Increase over baseline
Review – new KPI: Number of Tusker Ultra-low emissions vehicle scheme uptakes		Increase over baseline

C 4	Area of Focus:	Supply Chain and Scope 3 emissions
Deliverable:	Achieve Carbon Reduction and Resilience in Supply Chain	
Outcome:	Reducing council's scope 3 emissions	
Governance:	Responsible directorates: Director of Finance and Procurement (for all procurement, pension fund; Director of Commissioning (for social care contracts only). Responsible services: Head of Procurement; Head of Adults Commissioning; Head of Families and Children Commissioning Service leads: Strategic Procurement / Social Value; Adults Commissioning, Families and Children Commissioning. Climate team to help coordinate. Stakeholders: Adult Social Care; Waste Services; Highways; Capital Projects; All services – commissioning and contract managers; Engagement and Partnerships	
Overview:		

The council's purchased items and outsourced contracts are classed as Scope 3 emissions and outside our direct control. While existing contracts often limit the council's ability to mandate GHG reductions, it can help to engage suppliers to assess their climate actions.

Priority focus will be on high-emission contracts, such as highways and waste, as well as the cumulative emissions from adult social care contracts. The council is also collaborating with smaller organisations, like care providers, to identify opportunities for carbon reduction and support their decarbonisation efforts. We use data to inform our approaches, and will report using the LGA tool and our own annual Greenhouse Gas report.

Supply chain and Scope 3 – What's next for 2025

- Use estimated Scope 3 data, and work on obtaining further actual data to inform target areas for carbon reduction
- Continue to engage with the top 10 council suppliers (in terms of their greenhouse gas emissions)
- Working with care providers through the Care Provider Forum to identify opportunities and support on emissions reduction and climate resilience
- Continue to incorporate climate objectives into all tenders and contracts, and further develop the council's procurement policy, process and guidance, building on the existing Socially Responsible Procurement Policy.

Longer term activity

- Develop a system for greenhouse gas emissions data collection from all suppliers
- Showcase and share best practice of council suppliers
- Continue to build up reporting on Scope 3 emissions in the annual Greenhouse Gas Emissions Report (e.g. schools, Wiltshire Pension Fund, contracts)

Impact:	Level: High Rationale: While there is currently insufficient quantitative data to fully assess the carbon impact of this deliverable, a previous estimate by Anthesis (Anthesis, 2022a) indicates that Scope 3 emissions from Procured Goods and Services account for approximately 269,000 tCO₂e. Although this specific deliverable may not result in a complete reduction of these emissions, it has significant potential to make a meaningful contribution to reducing the carbon footprint in a high-impact area of council operations. By engaging with suppliers, and using specific requirements within contracts, there is a high potential impact on carbon emissions. Scope 3 emissions work will need to include further engagement with suppliers and collection of data in order to accurately assess the specific carbon impact of this specific deliverable.
Co-benefits:	Leading by example; Efficiency and capacity building
KPI:	Target:
G1 Emissions from Wiltshire Council's key suppliers in CO ₂ e Review: consider adding a KPI to reflect the number of suppliers engaged per annum.	Target not yet defined.
C2 Carbon Footprint of pension funds investments. (CO ₂ e /\$m invested) Review: to align with Wiltshire Pension Fund annual reporting	Decreasing. Carbon neutral by 2050

C 5	Area of Focus: Household waste management
Deliverable:	Develop the council's waste management service to help achieve climate objectives
Outcome:	Reducing council's scope 3 emissions
Governance:	Responsible directorate / service: Director of Environment; Head of Waste Services Service lead: Waste Manager Technical Stakeholders: Climate Team; Highway operations (Fleet Services & Depot Strategy); Comms
Overview: The objectives of the Climate Strategy are to: • Work towards zero avoidable waste in Wiltshire and decarbonising the waste management process • Manage waste in accordance with the waste hierarchy, increase the amount and quality of waste recycled and reduce the amount of waste sent to landfill The council's waste management service handles household waste collection and management through external contracts. While commercial waste falls under the 'Green and Circular Economy' theme, there are opportunities for cross-sector knowledge sharing to explore circular waste streams. Efforts are focused on understanding actual emissions, embedding carbon monitoring and reduction targets in future contracts, and aligning with the Waste Strategy and Environment Act requirements. Carbon analysis has targeted high-emission areas, such as reducing landfill waste from Household Recycling Centres (HRCs). The service continues to prioritise waste reduction, recycling, re-use, and landfill diversion, with future plans addressing the 2027 changes to waste collection services and the carbon impact of residual waste processing. The council is also reviewing its waste collection fleet, starting with trials of electric waste vehicles in Wiltshire and exploring alternative fuels like HVO. The council has a dedicated Waste Engagement Officer working with residents on ways to reduce waste and increase re-use and recycling. The waste management services have carried out a Climate Change Risk Assessment to ensure the service is resilient to the impacts of climate change, and resulting actions are included in the emerging Climate Adaptation Plan. <u>Household waste management - What's next for 2025</u> • Continued focus on promoting reuse of materials that would otherwise be disposed of as waste, with the proposed launch of a new reuse shop reselling items donated for reuse at Wiltshire household recycling centres in Devizes in Q4 24/25. • Increase activity to prepare for the delivery of new dry recycling collection and food waste collection services from 2027, following Cabinet decision on 19 Nov 2024. • Progress the trial of a new electric Refuse Collection Vehicle on operational collection rounds throughout 25/26 and consider use of alternative fuels on a trial basis. • Establish baseline and monitoring for greenhouse gas KPIs for household waste management (see below) <u>Longer term activity</u>	

Continue to use greenhouse gas emissions data within decisions on household waste management service options and strategy, and within the tender and contract management process for waste contracts	
Impact:	Direct emissions reduction impact: High Overall impact: High Priority: High Rationale: Carbon emissions from waste contracts is estimated to be the council's second highest greenhouse gas emitting contract, based on contract spend in 2020. There are also savings to be made on the gross emissions by continuing to follow the waste hierarchy.
Co-benefits:	Air quality; Health and wellbeing; Renewable energy (energy from waste, landfill, anaerobic digestion)
KPI:	Target:
R1. Amount of household waste (kg waste produced per household)	Below 880kg
Review: - delete R2a, R2b, and R2c – these are already included in the corporate scorecard, and other KPIs may provide specific focus on the carbon emissions impacts of the waste service - R2a. Proportion of household waste managed, by destination: Recycled or composted (%) ('recycling rate') - R2b. Proportion of household waste managed by: Landfill diversion (%) - R2c. Proportion of household waste managed by: Landfill (%)	
R3. Impact of waste management services on GHG emissions (carbon and methane emissions from waste management services, including fleet in t CO ₂ e)	Currently establishing baseline and monitoring.
Review: consider additional KPIs to help monitor the actual carbon emissions from household waste management, as well as the carbon savings due to specific practices such as recycling, landfill diversion	

2. Transport delivery theme

The Climate Strategy objectives for transport are:

- To achieve a transport system in Wiltshire that has zero carbon emissions, acknowledging the different solutions for our towns and city versus rural villages
- Creating the infrastructure for increased walking, cycling, shared and public transport and use of alternative fuels, including electric vehicle charging points
- Achieving high-quality public transport and transport hubs that offer a pleasant and convenient way to get around, and seamless combined journeys
- Locating and designing new developments to reduce the need to travel

Surface transport is the largest proportion of greenhouse gas emissions in Wiltshire (38% of territorial emissions, DESNZ, 2024). The emissions decreased slightly between 2021 and 2022, but the trajectory is nowhere near close to the pathway that is needed to reach carbon neutral by 2030 or even 2050, and this follows the trend seen in other local authority areas and nationally.

Wiltshire Council's fourth Local Transport Plan (LTP4) sets the holistic vision and strategy for transport in the county, and is on track to be adopted by Full Council in 2025, subject to consultation and any necessary changes. Whilst it is acknowledged by the national [Transport Decarbonisation Plan](#) that decarbonising vehicles will not be enough to achieve net zero transport, it is accepted that rural areas may need different approaches than urban. Wiltshire Council is mindful that being a rural county, there will be a significant amount of private vehicle travel that is necessary for many residents and businesses. Initiatives such as demand responsive transport and car clubs will be expanded, alongside integrated mobility hubs, and these concepts are supported by the national guidance for rural areas '[Future of Transport: supporting rural transport innovation](#)'.

The approach will be to support the uptake of electric vehicles, by increasing electric charging infrastructure, and providing sustainable travel options and encouraging take up. In scenarios where people are able to travel by cycling, walking and wheeling, for shorter journeys we will continue to increase the provision of safe routes and publish Local Cycling and Walking Infrastructure Plans. Demand for car clubs will also be explored.

Challenges

- The draft Wiltshire Fourth Local Transport Plan (LTP4) identifies that in order to close the emissions gap of the DfT transport decarbonisation pathway (to 2050) an approximate 35% reduction from current emissions levels would be required. In 2035 this would equate to a 70% reduction from the current (2023) levels. Whilst the draft LTP4 includes measures to support the decarbonisation of transport and contribute to closing this emissions gap, these measures are assessed to achieve approximately one third of the carbon reduction needed. This aligns with the notion that local authorities are thought to be able to influence approximately one third of area-wide emissions⁴. LTP4 measures will require support of residents, businesses and local organisations to ensure success.
- Beyond the influence of the Local Transport Plan, there remains a substantial emissions reduction to be made. National and regional policy and changes are required, where the council and LTP4 have limited influence, such as freight and other journeys through the county. Therefore, individuals and organisations located and operating within Wiltshire can help to achieve the carbon reduction required, on top of what will be carried out under the context of the LTP4.
- Wiltshire is above national average for EV adoption, but below where we need to be on pathways to net zero. The [Zero Emissions Vehicles \(ZEV\)](#) mandate is an important part of closing the emissions gap.
- Travel which is not directly included within the LTP4 may be influenced by the council, e.g. The council's suppliers that have high mileage are an area we will explore, e.g. care providers' vehicle use.

⁴ Climate Change Commission, 2020. P16 <https://www.theccc.org.uk/publication/local-authorities-and-the-sixth-carbon-budget/>

The ongoing activities, and priorities for 2025 are set out in the following tables.

T 1	Area of Focus: Electric Vehicles
Deliverable:	Increase availability of electric vehicle (EV) chargepoints to promote the transition from fossil fuel to EVs.
Outcome:	County carbon reduction
Governance:	Responsible directorate / service: Director Highways and Transport; Head of Major Highways Projects. Planning Service Service lead: EVI manager and team Stakeholders: Climate Team; Highway Operations; Highways Development Management.
Overview: The council has established a team of officers, funded through the Local Electric Vehicle Infrastructure (LEVI) capability funds, to develop an updated EV strategy focused on delivering charging networks and facilities in areas with limited or no off-street parking. This initiative aims to expand EV charging infrastructure to encourage EV adoption, particularly in locations where home chargers cannot be installed. The strategic direction is informed by the Local Transport Plan 4 (LTP4) EVI sub-strategy. The planning system will support and encourage developers to ensure new and refurbished developments provide residents accessible EV charging facilities, enabled by the upcoming Air Quality SPD which increases minimum requirements beyond those in Building Regs AD-S. <u>Electric Vehicles – What’s next for 2025</u> • Produce a Wiltshire Electric Vehicle Infrastructure Strategy for 2025-28, which will be adopted as part of the LTP4. • The Local Electric Vehicle Infrastructure (LEVI) project will be the focus of activity – aiming to significantly increase the number of public EV chargepoints across the county. To include: ◦ Community engagement with Wiltshire parish/town/city councils and residents, to ensure public participation in the location of new council led EV charger builds. ◦ Engagement with electricity distribution network operator to identify and overcome barriers to chargepoint infrastructure rollout <u>Longer term activity</u> • Roll out the Electric Vehicle Infrastructure Strategy, once this is adopted as part of the LTP4 • Work with business fleet operators (e.g. taxis, buses, commercial logistics) to identify needs of their fleet, and potential to collaborate in EV infrastructure provision • Explore future plans for the Wiltshire Council owned and operated public charging network • Conduct trial deployment of cable channel products to enable resident on-street home charging	
Impact:	Direct emissions reduction impact: High Overall impact: High Priority: High Rationale: NEVIS modelling through LEVI project details potential emissions reductions based on predicted EV adoption, inc CO₂e, NO_x & PM_{2.5}.

	The carbon impact of this deliverable is projected to be high, based on an assessment of the potential savings from transitioning 88% of cars within the county by 2030 in line with Anthesis forecasts (Anthesis, 2022b). The impact has been calculated using projected 2030 carbon factors. Whilst the council's activity to install chargepoints is not the only factor in increasing uptake of electric vehicles, it is impactful and can give confidence to those considering switching to an electric vehicle. Annual Carbon Savings (Based on 2030 Carbon Factors): 552 ktCO₂e.
Co-benefits:	Air Quality; Fair and inclusive (social equity of charging provision); Vibrant, well-connected communities; Energy supply resilience (less reliant on imported fossil fuels)
KPI:	Target:
X2 Total transport GHG emissions for Wiltshire in kt CO ₂ e (territorial). Figures now include CH ₄ , NO ₂ & CO ₂	1054kt for 2021; 933 kt for 2022 (based on transport emissions as % of total) (DESNZ, 2022, is most recent data)
T3 Total number of EV charge point locations in Wiltshire (all publicly available charging points including those owned by the council). Measured quarterly by DfT as 'number of devices per 100,000 population', see Quarterly DfT reporting	Increasing in line with SW average (75 per 100,000 population in April 2024)
T2 Air quality: number of annual exceedances of NO ₂ (nitrogen dioxide) over 40 µg/m ³ target in Air Quality Management Areas (AQMAs)	No exceedances (NO ₂ remains below 40 µg/m ³) and aiming to revoke AQMAs
Review: New KPI: Electric vehicles as % of total county vehicle parc. (Parc is European term for all vehicles registered in a geographical area)	3.8% @ Autumn'24 33% by 2030 (NEVIS)
Review: Consider adding a new KPI to help track EVI utilisation rate for Wiltshire Council public devices (Fast and Rapid)	

T 2	Area of Focus:	Active Travel
Deliverable:	Increase options for active travel across Wiltshire	
Outcome:	County carbon reduction	
Governance:	Responsible directorate / service: Director Highways and Transport; Head of Major Highways Projects. Planning Service Service lead: Principal Planning and Development Manager Stakeholders: Climate Team; Highway Operations. Highways Development Management Active Travel Steering / Delivery Group	
Overview: The council will implement Local Cycling and Walking Infrastructure Plans (LCWIPs) to develop active travel infrastructure, ensuring that walking and cycling are safe, connected and convenient options for residents in Wiltshire's larger settlements. This work will be supported by sourcing external funding streams to deliver the necessary infrastructure. Through the planning system, the council will work with developers to secure sustainable transport outcomes in new developments, supporting new homes and businesses while also		

retrofitting the existing built environment with infrastructure for walking, cycling, and public transport. Active Travel England are a statutory consultee in the system.

In 2025 we will continue to focus on delivering infrastructure using the funding available to the council from Active Travel England and other sources, such as S106 development funding.

Active Travel – What’s next for 2025

- Continue developing LCWIPs for all of our towns and produce a pipeline of active travel schemes that will be delivered when funding becomes available.
- A new grant has been awarded to the council by Active Travel England for cycling and walking infrastructure.
- Bikeability, WalkSafe and Scootability will continue, with a £229,573 grant for 2024/25.
- Continued focus on [air quality](#): Carbon reduction and air quality objectives go hand in hand and better air quality makes active travel more inviting.
- Continue to offer support to schools in developing their School Travel Plans
- Explore partnerships with others to achieve messaging and activity to encourage shifts to more sustainable modes of travel.

Longer term activity

- Embed active travel in the design of new developments and town centre regeneration projects by enhancing the public realm and improving pedestrian and cycling access infrastructure as well as advocating for travel plans that should incentivise alternatives to the private car.

Impact:	Direct emissions reduction impact: Medium Overall impact: Medium Priority: Medium Rationale: This deliverable has the potential for a medium impact due to its ability to drive modal shifts away from vehicle use, reducing transport-related emissions (a major contributor to Wiltshire’s overall carbon footprint – 33.2% (Anthesis, 2022b)). Under a High Ambition Pathway, active travel mileage share in Wiltshire would need to increase by over 200% compared to 2020 levels, from 3% in 2020 to 9% in 2045 (Anthesis, 2022b). As active travel is considered zero carbon, any increases in this mode will directly correlate with reducing emissions from cars. Due to the way funding is administered by Active Travel England, additional funding may need to be sought to carry out some of the behaviour change measures necessary to achieve this impact. It is also important to recognise that the urban/rural geography of Wiltshire, including narrow roads in market towns and areas of heritage can cause challenges in designing active travel plans. Furthermore mode shift is not always feasible due to longer distances travelled within rural areas.
Co-benefits:	Air quality; Health and Wellbeing; Thriving economy and right skills; Awareness and Empowering; Fair and inclusive; Green and blue infrastructure; Vibrant, well-connected communities
KPI:	Target:
X2 Total transport GHG emissions for Wiltshire in kt CO ₂ e (territorial). Figures now include CH ₄ , NO ₂ & CO ₂	1054kt for 2021; 933 kt for 2022 (based on transport emissions as % of total) (DESNZ, 2022, is most recent data)

T2 Air quality: number of annual exceedance of NO ₂ (nitrogen dioxide) over 40 µg/m ³ target in Air Quality Management Areas (AQMA's)	No exceedances (NO ₂ remains below 40 µg/m ³) and aiming to revoke AQMA's
T4 Cycle Training: Number of children and adults trained through Bikeability	TBD
T5 Local Cycling and Walking Plans (LCWIPs) produced (cumulative total)	16 produced by 2025
Review: consider adding KPIs to help monitor the Number of active travel projects implemented; funding secured for active travel projects; increased usage of active travel modes.	

T 3	Area of Focus: Sustainable Travel
Deliverable:	Improve sustainable transport in Wiltshire.
Outcome:	County carbon reduction
Governance:	Responsible directorate / service: Director Highways and Transport; ALL Highways and Transport services. Service lead/teams: Passenger Transport & National Bus Strategy managers. Highways and Transport. Highways Asset Management. Stakeholders: Climate Team; Highway Operations; Highways Major Projects. Active Travel Steering / Delivery Group; LTP4 Board
Overview: Sustainable transport in Wiltshire includes public transport and active travel, but it's important to recognise that many are currently, and will remain, reliant on private vehicle use to live in our rural context. Wiltshire Council can work with others to try to ensure that public transport provision is reasonably priced, convenient, and reliable so far as possible. We can work with bus operators to support the transition to EVs in public transport, such as the ZEBRA project with Salisbury Reds. The council will work with rail companies to improve current and new train stations in the county, such as that proposed for Corsham and Devizes. Through the planning system, the council will work with developers to secure sustainable transport outcomes in new developments that support the new homes and businesses but will also help to retrofit the existing built environment with walking, cycling and public transport infrastructure too. Carbon assessment of all transport projects, in partnership with council contractors and suppliers is an area to be further explored. The council will aim for consistency of data and methodologies for reporting, moving from estimates based on conversion factors, to scheme- and material-specific assessment where possible. <u>Sustainable Travel – What's next for 2025:</u> • Finalisation and adoption of the fourth Wiltshire Local Transport Plan (LTP4) • Continue to work in partnership to deliver transport and climate objectives, e.g. ○ Enhanced Partnerships with bus operators ○ School travel planning ○ Work with business on freight decarbonisation and EV infrastructure • Explore further rollout of Demand Responsive Transport e.g. in Malmesbury, Mere and Warminster areas • Work closely with the Department for Transport (DfT) and the rail industry to enhance train services across Wiltshire	

<u>Longer term activity</u> - Explore how best to work with residents, community groups and organisations in Wiltshire to encourage the shift away from private vehicle use, where possible, and where alternatives are realistic - Ensure sustainable transport options are integrated into new developments, engaging with developers early to implement an agreed avoid, shift and improve framework.	
Impact:	Direct emissions reduction impact: Medium Overall impact: Medium Priority: High Rationale: Emissions from transport represent 38% of Wiltshire's emissions profile (DESNZ, 2024), making them a key source to target action. Therefore, this deliverable has the potential for a medium impact due to its ability to drive modal shifts away from vehicle use, reducing transport-related emissions. However, we recognise that given the rural nature of Wiltshire, mode shift may not always be feasible due to the longer distances travelled.
Co-benefits:	Air quality; Health and Wellbeing; Thriving economy and right skills; Awareness and Empowering; Fair and inclusive; Green and blue infrastructure; Vibrant, well-connected communities
KPI:	Target:
X2 Total transport GHG emissions for Wiltshire in kt CO ₂ e (territorial). Figures now include CH ₄ , NO ₂ & CO ₂	1054kt for 2021; 933 kt for 2022 (based on transport emissions as % of total) (DESNZ, 2022, is most recent data)
T1 Number of passenger trips on both the commercial and supported bus networks	10% per year (8.4 million in 2023/24)
T2 Air quality: number of annual exceedance of NO ₂ (nitrogen dioxide) over 40 µg/m ³ target in Air Quality Management Areas (AQMA's)	No exceedances (NO ₂ remains below 40 µg/m ³) and aiming to revoke AQMA's
Review: consider adding KPIs to help monitor Number of active travel projects implemented; usage of active travel modes; bus patronage and reduction in car usage.	

3. Homes and the Built Environment

The Climate Strategy objectives for Homes and Built environment are:

- New buildings, including homes, to be net zero carbon and adaptable to climate change as soon as possible (including measures such as water efficiency)
- Existing buildings in all sectors to be retrofitted to improve energy efficiency and decrease energy demand through low carbon technology
- New and existing buildings to be adapted to climate change for both heating and cooling, and to include measures of benefit to the wider environment where possible.

Buildings, and specifically homes, are one of the largest sources of greenhouse gases in Wiltshire. With over 194,000 homes in the county there is a huge challenge but also significant benefits to ensuring that these are warm or cool enough and can be run efficiently so that bills and emissions are reduced. The council will focus on domestic retrofit, but will

also explore how to support the commercial sector to decarbonise and move its buildings towards net zero emissions.

Our approach to retrofit and new build advice will also make sure that consideration of adaptation and resilience measures are included, such as ventilation, shading and cooling and mitigating flood risk.

The draft Wiltshire Local Plan sets out a framework for delivering up to 36,740 new homes by 2038. The plan also includes new policies requiring net zero development, assessment of embodied carbon as well as policies relating to the design of new development to ensure that sustainable travel options are incorporated, which will work alongside the existing Wiltshire Design Guide.

The ongoing activities, and new priorities for 2025 are set out in the following tables.

B 1	Area of Focus: Domestic Retrofit
Deliverable:	Develop and implement a comprehensive Retrofit Strategy that is available to all housing sectors, centred on enabling more homeowners to take up energy assessments and home energy improvements
Outcome:	County-wide carbon reduction
Governance:	Responsible directorate / service: Director Environment; Head of Climate and Environment Service lead: Retrofit Development Manager Stakeholders: Climate Team; Economy & Regeneration; Education and skills; HRA; Strategic Assets & FM - Energy Team; Comms Registered providers retrofit working group
Overview: Wiltshire has various retrofit projects, initiatives, and grants led by different organisations, but overcoming barriers to retrofitting requires a comprehensive, collaborative strategy. The Retrofit strategy will promote a whole-house approach supported by a One Stop Shop to guide residents through the retrofit process, with community engagement ensuring designs are tailored to local needs. It will include blended funding models to make retrofitting accessible to all and focus on building a skilled supply chain through recruitment and training. A robust and compelling supplier journey will play a vital role in engaging, recruiting and training a skilled supply chain. <u>Domestic Retrofit - What's next for 2025</u> • Supporting residential retrofit through advice, and targeted projects such as Solar Together and HUG. • Solar Together scheme 3 opened for registration in June 2024 with over 3,000 registrations in Wiltshire by the September 2024 closing date. Installations will be complete by end of March 2025. Solar Together scheme 4 planned to open in June 2025. • Start developing a retrofit strategy for Wiltshire: building on existing activities, reviewing data and using the Local Energy Net Zero Accelerator (LENZA) tool to inform our approach. <u>Longer term activity</u>	

- Implement the Retrofit Strategy and promote it to be used as a framework for delivery by the council and other stakeholders working on retrofitting in Wiltshire. - Explore setting up a Lendology fund to provide loans for home retrofit	
Impact:	Direct emissions reduction impact: High Overall impact: High Priority: High Rationale: Approximately, 50% of emissions in Wiltshire originate from buildings (Anthesis, 2022b) which underscores the significant role that building emissions play in overall the county's emission profile. Consequently, interventions to decarbonise this sector, such as retrofitting, will generate a substantial impact. Additionally, the emissions reductions from retrofitting are cumulative and multiply with the number of homes retrofitted, making this intervention scalable and impactful. Retrofit savings have been based on a typical medium-sized home (2–3-bedroom house) (Ofgem, 2024). Energy efficiency measure savings have been based on the CCC Sixth Carbon Budget Balanced Pathway. Heat Pump installation savings have been based on assuming that a typical home has a gas boiler and is replaced with an Air Source Heat Pump (ASHP) unit. Solar PV calculations are based on average UK performance and array size, assuming all electricity is used in the home. Energy Efficiency Annual Carbon Savings: 270 kgCO₂e per home. ASHP Annual Carbon Savings: 1790 kgCO₂e per home. Solar PV Annual Carbon Savings: 150 kgCO₂e per home.
Co-benefits:	Health and Wellbeing; Local economy;
KPI:	Target:
B4. EPCs certificates rated A to C / all EPCs registered that year (rolling 3 year average) for all dwellings in Wiltshire (%)	Increasing, and above SW benchmark (54%)
B6a. Energy efficiency of existing dwellings: EPC C and above in Wiltshire. (% of total EPCs registered that year)	Increasing, but below SW benchmark (49%)
B6b. Space heating demand for existing homes in Wiltshire per dwelling (kWh/m ² /year)	Decreasing, above SW benchmark (241)
Review: consider adding KPIs to help monitor number of heat pumps installed per annum; percentage of homes with solar PV.	

B 2	Area of Focus:	Commercial and community retrofit
Deliverable:	Develop programmes to support decarbonisation of commercial and community buildings	
Outcome:	County-wide carbon reduction	
Governance:	Responsible directorate / service: Director Environment; Head of Climate and Environment Service lead: Retrofit Development Manager; LAEP and community energy lead officer. Stakeholders: Climate Team; Economy & Regeneration; Education – schools commissioning; Engagement and Partnership Team; Strategic Assets & FM; Comms	

Overview:

A key proportion of business carbon emissions are those produced as a result of heat and power use in buildings. This area of focus will be centred around information and signposting to services for businesses and making use of any grant schemes that become available. Retrofitting of commercial buildings will be a mix of optimisation, light retrofit and deep retrofit.

In addition, schools are a source of emissions that could be reduced through targeted retrofit projects planned around school operational times. There is interest from communities in decarbonising buildings such as village halls, and this will also be supported through information and signposting.

The council will also develop more targeted projects aimed at supporting businesses to decarbonise their wider operations, and supply chains, and this will overlap with the deliverable on 'Commercial decarbonisation'.

Commercial and community retrofit – what's next for 2025

- Provide a briefing note for community organisations with information on how to decarbonise buildings such as village halls. Resulting projects have potential to be a focus for local energy awareness and community energy projects.
- Seek grant funding to support decarbonisation of businesses (see section on Commercial Decarbonisation).
- Explore the potential for the council to provide capital loans to schools to fund projects to install renewable energy and reduce their energy consumption and costs.

Longer term activity

- Develop a Retrofit Strategy to understand retrofit needs of commercial and community buildings
- Continue to deliver and seek funding for further targeted projects aimed at supporting businesses to decarbonise their wider operations, and supply chains. Where appropriate, this will include promoting the benefits of the community energy model to roof-owners, including those in business parks, community-owned assets, and commercial properties.

Impact:

Direct emissions reduction impact: High

Overall impact: Medium

Priority: High

Rationale: Approximately, 50% of emissions in Wiltshire originate from buildings (Anthesis, 2022b) which underscores the significant role that building emissions play in the county's emission profile. However the commercial and community sector is a smaller share of emissions than domestic buildings. Nevertheless, interventions to decarbonise this sector, such as retrofitting, will generate a substantial impact. Additionally, the emissions reductions from retrofitting are cumulative and multiply with the number of buildings retrofitted, making this intervention scalable and impactful.

Community buildings such as village halls have relatively low energy use, so low potential for GHG emissions reductions. However, they may be important for community buy-in, awareness raising, and adaptation and resilience. There is potential to extend projects to generate renewable energy that is not just used in the building, but serves EV chargers, heat networks and local energy markets.

Retrofit savings have been based on the commercial and public sector emissions for the county in 2019 (Department for Energy Security and Net

	Zero, 2024). Energy efficiency measure savings have been based on the CCC Sixth Carbon Budget Balanced Pathway. Heat Pump installation savings have been based on assuming that each building with a gas boiler is replaced with an ASHP unit. Solar PV calculations are based on average UK performance and a single panel (as roof size is not known for the council's buildings), assuming all electricity is used on-site. Commercial Energy Efficiency Annual Carbon Savings: 29 ktCO₂e. Commercial ASHP Annual Carbon Savings: 33 ktCO₂e. Public Sector Energy Efficiency Annual Carbon Savings: 26 ktCO₂e. Public Sector ASHP Annual Carbon Savings: 42 ktCO₂e. Solar PV Annual Carbon Savings: 20 kgCO₂e per panel.	
Co-benefits:	Health and Wellbeing; Local economy;	
KPI:		Target:
	No KPI to date. Suggestions TBC:	
	Number of commercial and community buildings with PV; number of SMEs engaging in the programme	
	Number of schools taking part in Energy Sparks / with PV	
	Consider how to monitor measures being used to decrease vulnerability to climate change impacts	

B 3	Area of Focus:	New builds and land use
Deliverable:	Promote low-carbon, climate-resilient development and sustainable land use planning	
Outcome:	County-wide carbon reduction; Council carbon reduction; Adaptation and Resilience	
Governance:	Responsible directorate / service: Director Environment; Head of Climate and Environment Service lead: Retrofit Development Manager; Climate-buildings & planning-technical lead officer Stakeholders: Strategic Planning; Development Management; Education – schools commissioning; Capital Projects; Estate and Property - Residential Development (council homes new build).	
Overview: Planning policy is the main way that the council can influence new builds and land use, in tandem with providing guidance and engaging with developers more generally. The Local Plan Review is central to the council’s approach to supporting low carbon and climate resilient development. Until the new Local Plan is adopted, the council continues to use the planning process to highlight the benefits of renewable and low-carbon energy projects and encourage nature-based solutions to mitigate any negative impacts while maximizing co-benefits through the mitigation hierarchy. Climate and Planning teams will continue to work together to ensure Neighbourhood Plan groups have appropriate evidence that supports climate action.		

The council aims for its new developments to achieve net-zero targets in accordance with its Environmental Policy. A two-page guidance document will be provided to businesses with practical advice on addressing climate change in new developments.

New builds and land use – What's next for 2025

- Use Modern Methods of Construction for council home delivery, including sites underway at Corsley Heath and Rowde.
- The Local Plan Review is progressed through examination towards adoption, to embed planning policies that advance climate objectives. The plan includes a monitoring framework to track the impact of policies on carbon emissions in Wiltshire.
- Early engagement with applicants, developers and businesses to establish industry best practice in new developments regarding net zero and climate resilience.

Longer term activity

- Ensure all council new builds integrate climate adaptation measures and meet high standards for low carbon and net zero operation, facilitated through requirements of the capital bid process

Impact:

Direct emissions reduction impact: High

Overall impact: High

Priority: High

Rationale: Approximately, 50% of emissions in Wiltshire originate from buildings (Anthesis, 2022b), highlighting the critical importance of ensuring new developments are both energy-efficient and low-carbon. While the council's current Draft Local Plan (Policy 85) does not mandate Passivhaus standards, it does set robust targets for energy efficiency and renewable energy integration (Wiltshire Council, 2023) including that new developments will demonstrate the following:

- Space heating demand less than 30kWh/m²/annum
- Total energy use less than 40kWh/m²/annum
- On site renewable energy generation to match the total energy use, with a preference for roof mounted solar PV, subject to building orientation and heritage considerations
- Connection to a district heating network where one is available

Policy 86 outlines support for renewable energy proposals, which contributes to the wider decarbonisation of the electricity grid, providing further benefit than quantified below and also outlines support for renewable energy proposals. Policy 87 supports lower emissions from embodied carbon, which will provide additional benefits that have not yet been quantified.

Given national uncertainties surrounding new build standards, carbon impact evaluations have been modelled across a range of building standards including current Part L Regulations, Policy 85 Standards, as well as Future Homes Standard and Passivhaus for reference.

Annual Carbon Savings from Buildings at Policy 85 Standards, compared to Current Part L: 1230 kgCO₂e per home without Solar PV, or 1420 kgCO₂e per home with Solar PV.

Annual Carbon Savings from Building at Future Homes Standard, compared to Current Part L: 1180 kgCO₂e per home.

Additional Annual Carbon Savings from Building at Passivhaus, compared to Future Homes Standard: 240 kgCO₂e per home.

Co-benefits:

Health and Wellbeing; Local economy;

KPI:	Target:
B4. EPCs certificates rated A to C / all EPCs registered that year (rolling 3 year average) for all dwellings in Wiltshire (%)	Increasing, and above SW benchmark (54%)
B5a. Energy efficiency of new dwellings: EPC B and above in Wiltshire. (% total EPCs registered that year)	Increasing, and above SW benchmark (91%)
B5b. Space heating demand for new homes in Wiltshire per dwelling (kWh/m2/year)	Decreasing, and below SW benchmark (86)
Review: add KPI to monitor the number of projects where the climate team have been engaged in RIBA Stages 0-2 across Wiltshire	
Review: add KPI to monitor the Number of planning and pre-application consultations provided by climate team, and % within set deadline	Number of consultation responses 100% target for responses provided by deadline.
Review at end of 2025: add KPI to help monitor embodied carbon in new developments, once new Local Plan policy is adopted. Measures as per the Local Plan monitoring framework for Policies 85, 86 and 87	Below 900 kgCO ₂ /m ²

4. Natural Environment, Food and Farming theme

The Climate Strategy objectives for the Natural Environment, Food and Farming are:

- Efficient and environmentally sensitive use of land, providing for the needs of an increasing population and nature: food production, renewable energy generation, housing and transport, alongside woodland creation and nature recovery
- Absorbing carbon, by plants and well-managed soils
- Sustainable, low-carbon food and farming systems
- Protect and extend our network of green spaces and land and water habitats. Make best use of this network of green and blue spaces for biodiversity, active travel, recreation, cooling, shade and absorbing carbon
- Natural water management – improving climate resilience by reducing flood risk and summer droughts, and reducing water use

There are many opportunities to link climate, natural environment and health and wellbeing objectives. The council's Green and Blue Infrastructure Strategy is a framework that combines these themes, and the council will focus on projects that achieve outcomes in combination. In terms of climate change, the focus for 2025 will be quantification of carbon reduction associated with nature-based projects, and supporting farmers and landowners, as well as the council, to undertake projects that remove carbon dioxide, reduce greenhouse gas emissions and improve resilience to climate change impacts.

The council will continue to develop its Local Nature Recovery Strategy and identify and implement land-based, nature recovery, biodiversity and nutrient management projects, that will also have positive outcomes for resilience to the impacts of climate change and carbon sequestration.

The approach of working with farmers and landowners through farming networks and clusters will be expanded, with climate adaptation and resilience, and regenerative farming practices at the forefront.

The council's existing tree planting initiatives will continue to build towards the target of an increase of 444 Ha of new trees per year in Wiltshire.

The ongoing activities and new priorities for 2025 are set out in the following tables.

N 1	Area of Focus: Nature recovery, carbon and resilience
Deliverable:	Implement Local Nature Recovery Strategy and Green and Blue Infrastructure Strategy to protect biodiversity, absorb carbon and increase resilience
Outcome:	County-wide carbon reduction; Council carbon reduction; Adaptation and Resilience
Governance:	Responsible directorate / service: Director Environment; Head of Climate and Environment Service lead: Ecology Manager and lead officers for nutrient neutrality, local nature recovery and GAPS team Stakeholders: Climate Team; Spatial Planning; Development Management; Estate and Property – County Farms.
Overview: The council will develop and implement projects that enhance green and blue infrastructure and deliver nature-based solutions for biodiversity, nutrient neutrality, flood risk mitigation, health and wellbeing, carbon sequestration, and climate resilience. Key initiatives include wetland restoration, partnerships with farmers, and projects that integrate access to green spaces, heritage, and active travel. The council will adopt a LNRS for Wiltshire and work within a new Nature Partnership alongside key stakeholders to implement its responsibilities. The Green and Blue Infrastructure Strategy will be delivered through place-based community engagement, creating local visions or 'settlement strategies' with management objectives and community-led projects. <u>Nature recovery, carbon and resilience - What's next for 2025</u> • Carbon assessment of projects, to help understand the potential for reducing emissions, increasing carbon sequestration, informing further work with farmers, landowners and partner organisations. • Local Nature Recovery Strategy adoption • Continue to implement the Nutrient Management Plan to reduce pollution from agricultural run-off and improve water quality • Continue to provide input into planning applications with expert feedback in relation to ecology, landscape, design, archaeology and climate <u>Longer term activity</u> • Work with communities to develop place-based 'settlement strategies', incorporating nature recovery, GBI, climate resilience and energy • Identify and deliver projects with communities, landowners and stakeholders for climate adaptation and resilience, also co-delivering outcomes for health and wellbeing, biodiversity, nature recovery.	
Impact:	Direct emissions reduction impact: Low-Medium

	Overall impact: High Priority: High Rationale: This deliverable has the potential for a low carbon impact as it primarily focuses on strategy development and habitat restoration. However, it could increase to medium dependent on the scale and implementation of the measures identified within the strategies. While its direct emissions reductions may be limited compared to other interventions, it will contribute to resilient, adaptive and biodiverse ecosystems, which has a potentially high impact in terms of carbon sequestration and resilience to the impacts of climate change as ecosystems are strengthened. Currently, there is insufficient quantitative data to enable a detailed assessment of this deliverable's carbon impact. Wiltshire Council is the responsible body for the purposes of the Local Nature Recovery Strategy for Swindon and Wiltshire, so this is an important role and influence for the council on this potential impact.
Co-benefits:	Health and Wellbeing; Local economy; Awareness and empowering; Resilient environment and society
KPI:	Target:
No KPI to date. Suggestions TBC:	
KPI to help monitor the number of restoration projects implemented; number of different species recorded per annum.	
KPI to help monitor the amount of carbon sequestered by tree planting, and other nature recovery projects	
kgTP/yr removed (Nutrient Neutrality) (total phosphorous)	no target – just for information

N 2	Area of Focus:	Tree Planting
Deliverable:	Increase tree planting in Wiltshire, to sequester carbon and enhance outcomes for biodiversity/nature recovery and resilience	
Outcome:	County-wide carbon reduction; Council carbon reduction; Adaptation and Resilience	
Governance:	Responsible directorate / service: Director Environment; Head of Climate and Environment Service lead: Manager and lead officer for GAPS team; Stakeholders: Climate Team; Estate and Property – County Farms; Local Highways; Engagement and Partnerships; Economy and Regeneration, Major Projects and Highways have options to support this work.	

Overview:

The council will continue to facilitate tree planting by working with landowners, as well as the council planting trees on its own land. The Grant Application and Planting Support (GAPS) Team will provide support to landowners, community groups and local Town and Parish Councils, to deliver more tree planting across the county. This will be done in partnership with Swindon Borough Council's Great Western Community Forest project. The approach is to help to define the scope and aims of projects, help to choose the right tree for the right place, and to find funding suitable for the projects.

The team will finalise the Tree and Woodland Planting Strategy and guidance to support these projects, and the council's tree planting practice.

Any tree planting projects will aim to quantify the carbon sequestered, and carbon credit schemes will be used as appropriate.

Tree Planting – What's next for 2025

- Continue to work with Wiltshire landowners, organisations and community groups to support tree planting and maintenance plans. The GAPs team has identified the following for 2024-25 planting season so far: 68 Ha of Woodland / 50 individual trees / 6379 m of hedgerow
- Developing a Wiltshire Council Tree and Woodland Planting Strategy to establish targets and advice on planting the right tree in the right place

Longer term activity

- Continue to support the network of Tree Wardens, engaging residents in tree planting, care and maintenance.

Impact:	Direct emissions reduction impact: Medium-High Overall impact: High Priority: High Rationale: Carbon sequestration from tree planting develops gradually, making this deliverable less impactful in the short term but increasingly significant over decades. Planting trees of one hectare (broadleaf woodland with minimal intervention/thinning with low disturbance) sequesters 386 tCO ₂ e over 100 years, therefore the cumulative effect of scaling up tree planting across Wiltshire could lead to substantial carbon savings. Additionally, the broader environmental, social, and resilience benefits make tree planting a vital component of any comprehensive climate strategy, even if short-term carbon impacts are moderate. 5 years from planting: 0 tCO ₂ e per hectare. 10 years from planting: 6 tCO ₂ e per hectare. 50 years from planting: 322 tCO ₂ e per hectare. 100 years from planting: 386 tCO ₂ e per hectare.	
Co-benefits:	Health and Wellbeing; Local economy; Air Quality; Biodiversity; Flood risk mitigation; Awareness and empowering; Resilient environment and society	
KPI:	Target:	
NE2 Hectares of trees planted in Wiltshire. (Includes woodland (0.5ha or more); trees outside woodland (individual trees or areas <0.5ha; hedgerows)	Plant 422ha or 675,000 trees per year on average in the period 2022-2045. 111 Ha during winter season 2023/24. 222 Ha during winter season 2024/25	
Review: Consider adding a KPI to help monitor the amount of carbon sequestered by tree planting, and other nature recovery projects		

N 3	Area of Focus:	Sustainable agriculture
Deliverable:	Work with farmers and landowners on nature recovery, carbon reduction and climate resilience projects	

Outcome:	County-wide carbon reduction; Council carbon reduction; Adaptation and Resilience
Governance:	Responsible directorate / service: Director Environment; Head of Climate and Environment Service lead: Climate Team and GAPS team. Stakeholders: Ecology; Landscape; Heritage and Archaeology; Estate and Property – County Farms; National Landscapes teams; Engagement and Partnerships; Economy and Regeneration.
Overview: To complement the action outlined in Deliverable N1 and N2, the council will also explore projects with farmers to enhance the agroforestry landscape with benefits for farm business resilience in a changing climate. Any land-based projects will aim to quantify the carbon sequestered, and carbon credit schemes will be used as appropriate. The council will continue to work with farmers (including County Farms) to explore opportunities for farm business resilience through delivery of objectives for nature recovery, tree planting, carbon reduction and climate resilience in Wiltshire with a focus on supporting farm business case development. The National Landscapes teams work with the council to support farmers in nature recovery and regenerative farming projects, as part of Farming in Protected Landscape schemes. It is acknowledged that agriculture is a significant source of greenhouse gases in Wiltshire, and this is mainly due to methane emissions from livestock, as well as greenhouse gas emissions from farm operations. The council will carry out a study of methane emissions in Wiltshire to find out more about the potential to reduce emissions and identify the role for Wiltshire Council specifically in supporting farms. Opportunities could include farm businesses using anaerobic digestion to produce renewable energy. The council will continue partnership-working with other organisations, such as Wiltshire Wildlife Trust, to deliver climate/nature recovery objectives in the farmed landscape. We will explore partnerships and knowledge sharing with local authorities, universities and business that aim to support reduction of carbon emissions from food and farming, reduction in inputs to farmland and help ensure viability of our rural economy. <u>Sustainable agriculture – What’s next for 2025:</u> • Collaborate with landowners and local farmers to adopt Environmental Land Management Schemes (ELMS) that improve soil health, sequester carbon and enhance biodiversity • Increase farmers' awareness and knowledge of farm business opportunities from climate/nature recovery to the farming community such as the Avon catchment local nutrient mitigation fund availability, and carbon credits • Continue to develop links with the farming community such as Wiltshire Young Farmers and NFU. • Carry out a study to identify the key sources of methane emissions in Wiltshire, identify the role of the council to influence these emissions. <u>Longer term activity:</u> • Work in partnership with farmers (and waste operators) to reduce methane, as informed by the study above	
Impact:	Direct emissions reduction impact: Medium-High Overall impact: Medium

	Priority: Medium Rationale: Agriculture accounted for 23% of Wiltshire's total emissions in 2022 (DESNZ, 2024), making it a significant sector to target for decarbonisation. Interventions could yield meaningful reductions in the county's overall carbon footprint while simultaneously providing co-benefits for biodiversity, soil health, and rural communities. The potential scale of impact has been estimated based on the National Farmer's Union 2040 Net Zero Plan, evaluating the impact of various measures to boost productivity and reducing emissions across Wiltshire's agricultural emissions. Potential for emissions reduction, and the council's influence in the farming sector is moderate, so the overall impact and priority is assessed as medium for the short term. Annual Carbon Savings: 180 ktCO₂e.
Co-benefits:	Health and Wellbeing; Local economy; Air Quality; Biodiversity; Flood risk mitigation
KPI:	Target:
No KPIs to date. Suggestions TBC:	
Agricultural emissions & Methane emissions in Wiltshire (DESNZ data)	TBC based on study
% of farmers who have adopted ELMS - this data may be available through the RPA (Rural Payments Agency)	TBC
Projects delivered on farms	
Consider adding a KPI to help monitor the amount of carbon sequestered by tree planting, and other nature recovery projects	

5. Energy

The Climate Strategy objectives for the Energy delivery theme are:

- Existing energy use in Wiltshire to be reduced to allow for decarbonisation
- Heat and electricity to be decarbonised (moving from fossil fuels to alternatives)

In addition to the council's own property carbon reduction and council home energy efficiency programmes, the goals of increasing energy efficiency and using renewable sources of energy are transferable to the Wiltshire-wide objectives, and require delivery in partnership with others, to promote energy demand reduction, a move to cleaner energy sources and overcoming electricity grid constraints. The council tracks the capacity of renewable energy in the county and would like to see more renewable energy being delivered through community-led projects.

Part of the Climate Strategy's energy theme objective is to investigate and progress joined-up Local Area Energy Planning, which is critical to delivering the County's net zero target. Local Area Energy Planning can identify the most cost-effective, integrated, energy systems for a local area to contribute to national and local Net Zero targets, and scale investment faster.

The ongoing activities, and new priorities for 2025 are set out in the following tables.

E 1	Area of Focus: Community-led energy
Deliverable:	Support the development of community energy groups, and empower communities to develop energy plans
Outcome:	County-wide carbon reduction; Adaptation and resilience
Governance:	Owner: Director, Environment; Head of Climate and Environment Service lead: Climate Team energy lead officer and manager Stakeholders: Economy and Regeneration; Climate Team - Retrofit; Capital Projects; Strategic Assets & FM - Energy Team; School Commissioning. LAEP Internal Working Group Community Energy roundtable
Overview: Community energy involves community-led renewable energy and energy efficiency projects, typically owned by the community, and is an effective way to accelerate the rollout of energy initiatives. Many organisations and businesses in Wiltshire, including community energy groups, are already leading renewable energy projects, and these efforts can be built upon. Beyond addressing climate change, energy security, and fuel poverty, community energy initiatives foster trust and cooperation by providing common ground for communities that may not usually interact. These models enable renewable energy installations where building owners lack capital by allowing community groups to raise funds and install technologies like solar panels. In local energy markets, the benefits can extend to local residents, offering discounted energy when not in use by the building. The council plans to explore these models and collaborate with communities to develop visions and plans for community-led energy projects, empowering individuals and bringing economic benefits to the area. <u>Community Energy - What's next for 2025</u> • Future Energy Landscapes project with Centre for Sustainable Energy, working with a small number of communities in Wiltshire to develop a vision and plan for community-led energy • Continue to convene regular roundtable with community energy groups operating in Wiltshire to ensure the council is supporting where needed • Encourage businesses, schools and community organisations to consider viable models for renewable energy generation, including community energy <u>Longer term activity</u> • Identify community-led energy projects, through the Future Energy Landscapes project, and Local Area Energy Plan. • Access support and feasibility studies through the South West Net Zero Hub to develop projects and investment.	
Impact:	Direct emissions reduction impact: High Overall impact: Medium Priority: Medium Rationale: This deliverable primarily focuses on building capacity, fostering collaboration, as well as progressing potential renewable energy projects. Therefore, the impact will be dependent on the scale, technology and implementation of these projects. Currently, there lacks sufficient quantitative data on the types of projects that will be progressed to enable assessment of the carbon impact.

	However, increasing the amount of community energy projects in Wiltshire will help to decarbonise the electricity grid and provide zero carbon / renewable energy sources for Wiltshire communities often at lower cost and return on investment for community shareholders. It can also be a helpful, positive way to engage communities with energy and climate issues, and if this approach is successful, the impact could change to high in this respect.
Co-benefits:	Lower energy bills. Resilient environment and society (Community cohesion). Awareness and engagement.
KPI:	Target:
No KPI to date. Suggestions TBC:	
Number of renewable energy / community energy projects implemented Total energy generated (kWh) from renewable sources Capacity installed via community energy projects	
Surveys, evidence, Stories or testimonials highlighting positive impact of projects. Numbers of households / communities / investors involved in community-led energy projects	

E 2	Area of Focus:	Local Area Energy Plan (LAEP)
Deliverable:	Develop and begin implementation of LAEP framework, to identify strategic priorities for grid upgrades, and create an energy system to support the net zero transition.	
Outcome:	Council carbon reduction; County-wide carbon reduction; Adaptation and resilience	
Governance:	Owner: Director, Environment; Head of Climate and Environment Service lead: Climate Team energy lead officer and manager Stakeholders: Economy and Regeneration; Spatial Planning; Climate Team - Retrofit; Capital Projects; Strategic Assets & FM - Energy Team; Major Projects; School Commissioning; Highway Operations. LAEP Internal Working Group	

Overview:

Local Area Energy Plans (LAEP) are recognised as the leading method for translating national net zero targets into local energy system action with plans that are collaborative, data-driven, and cost-effective. LAEPs are led by local government and developed collaboratively with defined stakeholders. The results are a fully costed, spatial plan that identifies the change needed to the local energy system and built environment, detailing ‘what, where and when and by whom’. LAEP sets out the total costs, changes in energy use and emissions, and sets these out over incremental time periods to meet the 2030 target of a 68% reduction in emissions, and the 2035 target of a 78% reduction in emissions, and net zero by 2050.

The council has started work to understand Wiltshire's current energy system and to identify the most cost-effective way to contribute to national and local net zero targets. This project will pave the way for a formal Wiltshire LAEP. Wiltshire Council is also piloting the ‘Local Energy Net Zero Accelerator’ (LENZA) tool from Scottish & Southern Electricity Networks

(SSEN) as part of its LAEP. LENZA will aid in baselining, data analysis, and developing the LAEP, along with planning EV infrastructure, renewables, and retrofits.

Local Area Energy Planning - What's next for 2025

- The council will continue to work on early stages of Local Area Energy Plan process, and prepare the engagement and data to support a formal Wiltshire Local Area Energy Plan.
- Work with South West Net Zero Hub and south west local authorities on LAEP project to progress into the stage of engaging stakeholders to incorporate their energy uses and future plans into the Local Area Energy Plan

Longer term activity

- Work with partners to identify renewable energy projects, through the Local Area Energy Plan and Economic Strategy.
- Access support and feasibility studies through the South West Net Zero Hub to develop projects and investment.

Impact:	Direct emissions reduction impact: Low-Medium Overall impact: High Priority: High Rationale: Whilst developing the LAEP is critical for ensuring a cohesive plan for energy decarbonisation across Wiltshire, as the deliverable primarily refers to strategy development the direct carbon impact is anticipated to be low. However, the outputs of the LAEP and resulting projects will be critical to supporting energy decarbonisation and could have a high impact. Currently, there is insufficient quantitative data to enable a detailed assessment of this deliverable's carbon impact.	
Co-benefits:	Improved Decision-Making. Stakeholder Engagement. Policy Alignment. Future-Ready Planning. Innovation Opportunities. Cost Optimisation. Accelerated Implementation. Investment Attraction. Social and Economic Benefits (e.g., job creation and reduced energy poverty)	
KPI:		Target:
No KPI to date. Difficult to monitor with an indicator or measure, but signs of success would be:		
LAEP framework developing, with resulting pipeline of projects. – Number of projects with feasibility study, and financial implementation plan		
Number of grid upgrades (number may not be important)		
Renewable energy projects / installed capacity		
Measure of transition to a low carbon energy system: Reduction in energy consumption from fossil fuels (DESNZ data set)		

6. Green and Circular Economy

The green economy section of the climate strategy has two main objectives:

- To grow the green economy in Wiltshire, increasing capacity and skills in key sectors to meet demand and delivery targets
- Wiltshire businesses take action to become carbon neutral and climate resilient

According to national data on *territorial* emissions, the sectors with lower sources of emissions within Wiltshire are waste and commercial / businesses, however this is still an area with a lot of potential for carbon reduction and perhaps more importantly for innovation and supporting the transition to a low carbon economy. The council's role may be limited, as commercial interest may override the motivation to reduce carbon emissions, especially for smaller enterprises. However, businesses above a certain size are required to report their emissions and action plan progress through the [Energy Savings Opportunity Scheme](#) (ESOS).

Supporting green businesses to grow in size and number will be aided by the Local Area Energy Plan and the Economic Strategy. The LAEP will clarify potential for growth in the renewables and energy sector, and identify a pipeline of deliverable and investable projects to support the transition to low carbon energy system and economy. Opportunities include renewable energy development, home energy retrofit installation, future fuel refuelling infrastructure (including EV charging, and potentially hydrogen), sustainable construction as well as innovation in circular resource use, recycling and waste management. This will need to be supported by training to develop the right skills in the workforce.

On the doorstep, Swindon is home to the Innovation Centre for Applied Sustainable Technologies (iCAST), a joint collaboration between the universities of Bath and Oxford to drive forward innovation and commercial application of groundbreaking research in sustainable chemicals and chemical engineering.

Green growth encompasses concepts of lower-carbon travel aligned to new housing and employment, with opportunities underpinned by the development and delivery of Local Area Energy Plans.

The ongoing activities, and new priorities for 2025 are set out in the following tables.

G 1	Area of Focus:	Upskilling and Green skills
Deliverable:	Increase green skills and training opportunities to support climate objectives	
Outcome:	County-wide carbon reduction; Adaptation and resilience	
Governance:	Owner: Director for Education and Skills Service lead: Targeted Education. Stakeholders: Economy and Regeneration; Climate Team (Energy, Retrofit); School Effectiveness. Education and Skills (Directorate)	
Overview: Nationally there is a shortage of installers with the skills necessary work to carry out retrofit of buildings. In Wiltshire there is more demand than supply of skilled engineers and other STEM qualified workers. There are opportunities to increase skills, inspire and retain young people		

and innovate in this theme. Green skills and knowledge are important to make sure the changes from the other themes can be implemented.

The low carbon and renewables sectors, and green skills are an important part of future-proofing and diversifying our economy and workforce. The draft Economic Strategy for Swindon and Wiltshire 2025/26 includes increasing green skills to match the needs of the workforce to support the transition to a low carbon economy and energy system. Upskilling of the business community includes sustainability awareness and general management skills for any business wishing to improve its sustainability performance.

Our focus will continue to be on stimulating local supply chains through investments in housing and renewable technologies. We will also work with training providers, such as Wiltshire College and the National Self Build and Renovation Centre in Swindon, to increase the courses and training opportunities for trades and students wishing to upskill. There is also potential to build on the council's existing work to support the farming sector through agri-tech and carbon sequestration projects that can help to generate income and a resilient business model.

Implementation will be via the Economic Strategy for Swindon and Wiltshire and link to the needs and priorities for training identified in the [Local Skills Improvement Plan](#) (LSIP) which helps to match skills to the future jobs, including those needed for the net zero transition.

Green skills – What's next for 2025

- Work with training providers (e.g. Lackham; Swindon Self-build centre) Wiltshire Careers Hub to improve skills required for Net Zero
- Work with Business West, and relevant partners, to understand the current skills and qualifications in the local workforce to support retrofit and renewables, carry out an audit of existing training available. Identify opportunities for the council to support skills and training in Wiltshire.

Longer term activity

- The draft Economic Strategy for Swindon and Wiltshire seeks to use green construction techniques and drive the development of green skills within our workforce

Impact:	Direct emissions reduction impact: Low Overall impact: Medium Priority: High Rationale: This deliverable serves as a critical enabling deliverable to ensure Wiltshire is well-prepared for the net zero transition, fostering a skilled workforce capable of implementing a range of decarbonisation technologies. While the direct carbon impact of this action is anticipated to be low, its importance lies in laying the groundwork for future emissions reductions across multiple sectors. Currently, there is insufficient quantitative data to enable a detailed assessment of this deliverable's carbon impact.	
Co-benefits:	Awareness and empowering; Resilient environment and society; Capacity building and efficiency; Thriving economy and right skills	
KPI:		Target:
No KPI to date. Suggestions TBC		
Number of existing / new training programmes; workforce skill improvement; participation in training programmes.		

G 2	Area of Focus: Commercial decarbonisation and circular economy
Deliverable:	Work with Wiltshire organisations, contractors, and businesses to reduce carbon emissions from their operations, including commercial waste and supporting circular economy initiatives
Outcome:	Council carbon reduction; County-wide carbon reduction; Adaptation and resilience
Governance:	Owner: Director, Environment; Head of Economy and Regeneration. Service leads: Economic Development Service Manager; Swindon and Wiltshire Business Growth Unit Stakeholders: Climate Team (Energy, Retrofit); Waste services; Engagement and Partnerships.
Overview: The council aims to support businesses in moving towards increased energy efficiency and resilience to the impacts of climate change. We want to encourage investment in green and renewable business in Wiltshire and build up skills and supply chains to support delivery of retrofit and renewables. The council's role is through the (draft) Economic Strategy for Swindon and focusses on integrating climate objectives into existing activity and partnerships. Additionally, the council can also provide information via business e-newsletters and business networks and targeted projects will assist businesses with their energy efficiency (see 'Commercial and community retrofit' deliverable). According to national data on <i>territorial</i> emissions, the sectors with lower sources of emissions within Wiltshire are waste and commercial / businesses but they could have a wider impact outside of Wiltshire's borders, for example from their supply chains, transport and freight. We also want to work with waste operators to explore the potential for short term methane reduction. We want to understand more about the carbon emissions associated with Wiltshire businesses and their potential to reduce emissions from operations and supply chains, and to adapt to the impacts of climate change. We want to support businesses in learning from each other and find out how the council can enable businesses to achieve impacts at scale. Ongoing support to businesses via the Swindon and Wiltshire Growth Hub and the council's Economy and Regeneration programme will integrate climate objectives into delivery. <u>Commercial decarbonisation and circular economy - What's next for 2025</u> • Deliver the Chippenham Avon Project, which includes measures for flood risk mitigation • Continuing, through the Towns Programme, to seek out and encourage new opportunities of national funding sources to support new tree planting in our urban areas • Seek funding to continue providing grants to businesses to incentivise reducing energy consumption and decarbonisation, such as the Fit for Net Zero scheme. • Proactive work to clarify planning requirements - with developers, businesses investing • Broadband Programme delivery through Project Gigabit	

- Engage with commercial waste operators to explore the potential for methane reduction and circular solutions, including setting up re-use and recycling schemes that involve Wiltshire businesses and their supply chains. <u>Longer term activity</u> - Green and renewables sector – focus on retrofit, and making sure these benefit local suppliers and economy where possible		
Impact:	Direct emissions reduction impact: Medium Overall impact: Medium Priority: Medium Rationale: This deliverable has the potential for a medium carbon impact, driven by its focus on reducing emissions from commercial waste management and promoting circular economy practices. While the carbon reductions from this initiative may vary based on the scope and uptake of proposed strategies, the collaborative approach and targeted interventions in high-emission areas position it to deliver meaningful benefits. Currently, there is insufficient quantitative data to enable a detailed assessment of this deliverable's carbon impact.	
Co-benefits:	Thriving economy and right skills; Awareness and empowering; Capacity building and efficiency	
KPI:		Target:
G1. Emissions from Wiltshire Council's key suppliers in CO ₂ e		
Review: consider adding KPIs to measure Councils Scope 3 emissions; Contractors measuring and recording their scope 1,2 & 3 emissions.		
Review: consider KPIs to monitor Reduction in emissions associated waste (DESNZ data); commercial waste diverted from landfill, through circular economy projects; Businesses signing up to projects such as Fit for Net Zero		

7. Adaptation and Resilience

The Climate Strategy objectives for Adaptation and Resilience are to plan to be able to cope with the impacts of climate change associated with a 2°C rise in global temperature

The findings of the Climate Change Committee (CCC) in their March 2023 report indicated that the UK is not adequately planning for the impacts of climate change associated with a 2°C rise in temperature and should also be considering the impacts of scenarios associated with a 4°C rise.

Wiltshire Council is responsible for ensuring our services, assets and activities are resilient to the impacts of climate change. Climate change is already bringing more severe weather to Wiltshire. The impacts for Wiltshire will be warmer, wetter winters and hotter, drier summers, with more instability in weather patterns. More heavy rain is causing increasing fluvial and surface water flooding, storms are causing structural damage, and heatwaves are damaging infrastructure and putting the health and wellbeing of vulnerable groups at risk. In future years we can expect to see more extreme weather events as global temperatures continue to increase.

Wiltshire Council supports many vulnerable residents, and we want to make sure that everyone is included and able to become resilient to the impacts of climate change.

A 1	Area of Focus: Climate Adaptation
Deliverable:	Implement a Climate Adaptation Plan that enhances the resilience of Wiltshire Council and Wiltshire communities to climate change.
Outcome:	Adaptation and resilience
Governance:	Owner: Director, Environment; Head of Climate and Environment. Service lead: Climate Team - Adaptation lead officer and manager. Stakeholders: Key services - Adult Social Care, Commissioning; Families and Children; Highways; Waste Services; Strategic Assets and FM; Climate and Environment (Ecology, LNRS, Nutrient Neutrality, BNG; Landscape – GBI, Tree Planting); Comms; Emergency Planning; Customer Services; Public Health; Planning; Libraries, Culture and Communities; Education and Skills.
Overview: During 2024 there was a fundamental review of the Wiltshire Council Climate Change Adaptation Plan, with a new plan due to be adopted in 2025. This shows the councils commitment to implement actions that enhance Wiltshire's resilience to climate change. These actions will be linked to specific climate risks, with clear ownership, timelines, and monitoring, developed in collaboration with key services, embedding the consideration of climate risk, and necessary mitigation into council business, using climate change risk assessments. The council will monitor its responses to severe weather, such as flooding incidents or heatwaves and associated follow up investigation and action, to inform additional mitigation or resources needs over time. Focussed efforts on flooding with continue to be via the North and South Operational Flood Working Groups including key messaging to communities, and we will continue to encourage Town and parish councils to participate in the flood working groups and to develop Flood Plans and Emergency Plans for their areas. Existing networks will support community prevention, preparedness and response to future sever weather events, including working through the Strategic Engagement and Partnerships Team, Area Boards, and Town and Parish Councils. Learning from delivering the Marlborough Rapid Adaptation Pathway Assessment (RAPA) will inform future engagement with stakeholders to make places and communities more resilient to future climate change including mid-century and end of century scenarios. <u>Climate Adaptation – What's next for 2025</u> • Wiltshire Council Climate Adaptation Plan to be produced by March 2025 • Make the Climate Adaptation Plan available to stakeholders, as a basis for their own adaptation planning and potential partnership working with the council • Council service areas will continue to identify risks to their service and customers due to the impacts of climate change, understand the adaptation actions needed, and timeframe for delivery, and build adaptation and resilience into projects and service delivery • Continue to deliver environmental mitigation projects, and quantify the climate benefits as much as possible • Continue to chair and convene Wiltshire and Swindon Local Resilience Forum	

Longer term activity

- Identify specific need and opportunities to work in partnership to improve resilience in Wiltshire communities.

Impact:	Direct emissions reduction impact: Low Overall impact: High Priority: High Rationale: This deliverable is an enabling mechanism, focusing on formalising a structure of reporting and monitoring as well as engagement with the local community. While the direct carbon impact of this deliverable is expected to be low, its importance lies in ensuring that the council is preparing to be resilient to climate impacts, so that it can continue to deliver its services, and respond to severe weather events, managing one of the council's strategic risks. Over time the focus will broaden to supporting residents, businesses and organisations, and the natural environment to be resilient to the impacts of climate change. Impacts will depend on how well the plan (this deliverable) and its actions are embedded into council's delivery programme, and progress toward climate objectives is effectively tracked, measured, and communicated.	
Co-benefits:	Awareness and empowering; Resilient environment and society; capacity building and efficiency; Leading by example	
KPI:	Target:	
KPIs to be developed as part of the Adaptation Plan		

8. Cross-cutting, Enabling and Empowering

Cross-cutting areas of action are those that help to deliver across all themes of the Climate Strategy and involve all service areas of the council. Our approach and a critical part of implementing this Climate Delivery Plan is ensuring that climate considerations are integrated into council projects, processes and decision-making, and part of business as usual. This way all of the council's activity can be aligned and help to deliver our carbon neutrality and resilience aspirations for the council and the county. In addition to business-as-usual activity being adjusted towards climate goals, the council will use the available data (such as DESNZ local authority emissions data) and commission additional work as needed to ensure that decisions and project development are based on up to date evidence.

As well as directly influencing activities that can contribute to climate objectives, the council also wants to partner with key organisations and empower residents and communities to take action on climate. Our approach to date has mainly been with and through town and parish councils, Community Area Boards, as well as working with relevant stakeholders on specific projects. Details of some of the environmental projects that have been supported through £60,000 area board funding was included in the '[Climate Update 2024](#)'.

We plan to engage more with communities and relevant partner organisations, through projects, and increasingly through place-based, place-shaping and visioning approaches which will empower communities to reach a shared goal for transition to net zero and resilience, alongside other important aspects such as open space, access to services, support with health, wellbeing, local economy and jobs. It will also help the council, with

communities and partner organisations, to understand needs and aspirations of communities and identify specific projects, for which to seek funding.

A key part of this plan has been to clarify costs where currently available, and as the detail of delivery is refined, we will develop realistic and innovative ways to finance the plan. Green finance options will be explored, including inviting private investment, harnessing carbon offsetting mechanisms, crowd funding and community bonds, contributions from council suppliers and developers.

The ongoing activities, and new priorities for 2025 are set out in the following tables.

X 1	Area of Focus: Staff engagement and training
Deliverable:	Develop and roll-out Carbon Literacy Training across council staff, and support staff to integrate climate objectives into business-as-usual
Outcome:	Council carbon reduction; County-wide carbon reduction; Adaptation and Resilience
Governance:	Owner: Director, Environment; Head of Climate and Environment. Service lead: Climate Team lead officer and manager. Stakeholders: Climate and Environment service – as trainers; Democratic services; ALL services
Overview: The council will continue to encourage staff and elected members to undertake in-house training accredited by the Carbon Literacy Project. Each participant of the course must pledge two actions for carbon reduction in the workplace. These actions not only support the council's climate objectives, but also help to ensure that climate awareness and considerations in project development and decision-making becomes part of business as usual. The council is already a Bronze award recipient, and aims to achieve the Silver award from the Carbon Literacy Project, which involves training over 800 staff. To support the implementation of pledges and share ideas of how colleagues are incorporating climate objectives into their work and homelife, the Green Scene staff network has been set up. This will be a channel for communication among over 5,000 staff, and an opportunity to gain feedback on council initiatives and communications before sharing with the wider public. <u>Staff engagement and training - What's next for 2025</u> • Continue to offer Carbon Literacy training for staff and councillors • Establish the 'Green Scene' as an internal communication and sharing network for staff <u>Longer term activity</u> • Aim to accredit an increasing number of staff through the Carbon Literacy Project (CLP), working towards having trained 15% of staff (over 800) to achieve the CLP Silver award	
Impact:	Direct emissions reduction impact: Low – Medium (difficult to quantify) Overall impact: High Priority: High

	Rationale: The development and roll-out of carbon literacy training is an enabling deliverable that primarily focuses on building awareness and capacity among council staff to support Wiltshire's climate objectives. While the direct carbon impact of this initiative is anticipated to be low, its indirect impact can be significant over time, as it empowers staff to embed carbon-conscious decision-making and practices across the organisation. It also supports behaviour change and the cascade effect, with training being discussed with family, friends & colleagues. Currently, there is insufficient quantitative data to enable a detailed assessment of this deliverable's carbon impact.	
Co-benefits:	Health and wellbeing, fair and inclusive, resilient environment and society, awareness and empowering, leading by example + others depending on the nature of the pledge/action.	
KPI:		Target:
C8 Number of staff completing carbon literacy training Review: Change KPI to match the target: 'Number of staff accredited through Carbon Literacy training' (and include % to tie into target of 20%)		Bronze carbon literacy award by July 2023; Silver carbon literacy award by end 2025 (20% staff certified carbon literate)

X 2	Area of Focus:	Decision Making and Processes
Deliverable:	Embed Climate Objectives into Council Processes and Decision-Making	
Outcome:	Council carbon reduction; County-wide carbon reduction; Adaptation and Resilience	
Governance:	Owner: Director, Environment; Head of Climate and Environment. With Legal and Governance Service leads: Climate Manager & Senior Corporate Manager – Executive Office Stakeholders: Capital Projects; Data & Insight; Legal and Governance; Corporate Governance Group; ALL Key services	
Overview: Embedding climate objectives into business operations is a core aim of this plan, supporting all delivery themes. By continuously reviewing council processes and integrating climate considerations, alongside carbon literacy training, the council ensures that staff align service delivery with climate goals. This contributes to the Climate Strategy across regulatory roles, community and business engagement, and the management of infrastructure and the natural environment. The existing Environmental Policy sets out how the council is mitigating its environmental impacts. Flowing from this it will be important to ensure that all business cases include relevant climate impacts and associated costs, savings and co-benefits, in order to inform decisions and strategic planning. Therefore the area of focus to 'embed climate objectives into council processes and decision-making' underpins the delivery plan, and is supported by Carbon Literacy Training. In this way, delivery of the climate objectives will be shared across the whole council, and delivered through business as usual, and will involve partnerships with organisations outside the council as necessary.		

Governance supporting delivery will include oversight at a senior management level of performance against this delivery plan, as well as management of the strategic climate risks included in the corporate risk register.

Decision-making and processes - What's next for 2025

- Develop further guidance and tools to ensure proportionate carbon assessment is part of any project (e.g. on council land or external projects), procurement and decisions.

Longer term activity

- Ensure that all climate projects fully consider and monitor impacts on wider council objectives, especially any unforeseen or avoidable negative impacts on vulnerable or underrepresented groups, aiming to work towards a 'just and fair transition' to a carbon neutral Wiltshire

Impact:	Direct emissions reduction impact: Medium Overall impact: High Priority: High Rationale: This is a foundational and enabling deliverable with the potential to drive medium carbon impact over time by integrating climate considerations into all aspects of the council's operations. While the direct carbon reductions from this initiative may be low, its systemic approach ensures that all council activities contribute to meeting climate targets and reducing emissions.	
Co-benefits:	Capacity building and efficiency; Awareness and empowering; Leading by example	
KPI:		Target:
No KPI to date Difficult to monitor with an indicator or measure, but signs of success might include: • how many cabinet reports incorporate relevant climate considerations (% target) • Impact assessment process developed and adopted • Capital projects including climate considerations in their business case. • Service plans integrating Climate Delivery Plan actions • Council's own new build (and budgeted) is designed to be net zero in operation • Procurement tenders and key contracts all include climate requirements. Key contracts all provide climate data and have a carbon reduction management plan. All key sectors for resilience have this built into their contracts		

X 3	Area of Focus:	Green Finance and carbon offsetting
Deliverable:	Develop green finance, carbon accounting and offsetting, to enable projects that sequester carbon, avoid carbon emissions, and adapt to climate change.	
Outcome:	Council carbon reduction; County-wide carbon reduction; Adaptation and Resilience	
Governance:	Owner: Director, Environment; Head of Climate and Environment. Service lead: Climate Manager	

Stakeholders: Ecology; Finance and Procurement; Climate Team – retrofit, energy. GAPS team. Strategic Assets & FM; Estate and Property; Engagement and Partnerships.	
Overview: To achieve carbon neutrality, the council will offset residual emissions from its operations. The principles for offsetting will be discussed and agreed upon, with options presented to the cabinet for consideration. By 2030, the Wiltshire area will also have residual emissions that need to be offset to reach carbon neutrality. While these emissions are not the council's responsibility, it can play a role in facilitating offset opportunities, ideally through local projects that benefit residents and businesses. Offsetting may include both carbon emissions avoidance and carbon dioxide removal, through initiatives such as tree planting, soil regeneration, wetlands, and energy efficiency projects. These projects will also provide co-benefits such as improved biodiversity, energy efficiency, and flood risk mitigation. A detailed proposal for offsetting will be presented to the cabinet in 2025. The council will explore setting up a 'Climate Fund' to attract green finance, enabling projects that may not otherwise be feasible. <u>Green finance and carbon offsetting - What's next for 2025</u> • A comprehensive Carbon Offsetting Strategy and Action Plan will be proposed in 2025, to discuss the options for carbon offsetting. • Develop the financial implementation plan for this Climate Delivery Plan as further detail is known about specific delivery and projects, with associated impacts and costs <u>Longer term activity</u> • Explore setting up a dedicated Climate Fund to finance carbon reduction and climate adaptation projects and develop a marketplace to connect local projects with funding opportunities	
Impact:	Direct emissions reduction impact: Low - Medium Overall impact: High Priority: High Rationale: This deliverable has the potential for a low-medium carbon impact, but its effectiveness is highly dependent on the scale, scope, and successful implementation of the initiatives, as well as their primary focus. If the deliverable emphasises carbon removals, such as through nature-based solutions or soil carbon sequestration, the impact is likely to be higher. Conversely, if the focus is primarily on offsetting mechanisms, the carbon impact may be lower. Additionally, the lack of sufficient quantitative data at this stage limits the ability to accurately evaluate its overall carbon impact. Additional impact will come via the ability of an offsetting scheme to generate finance for carbon reduction projects in the county, and this would have a potentially high impact.
Co-benefits:	Awareness and empowering; Capacity building and efficiency; Green and Blue Infrastructure
KPI:	Target:
No KPI to date. Suggestions TBC: • Number of projects initiated / money paid out to support projects; measures related to the outcomes of specific projects	No target in the first year – just for information and monitoring.

• Number of businesses using the council's climate fund / mechanism to invest or donate funds in climate projects • Money drawn into the climate fund • Volunteer hours banked	
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X 4	Area of Focus:	Engagement with stakeholders
Deliverable:	Provide information and actively engage with stakeholders to maximise the impact on climate change in Wiltshire.	
Outcome:	Council carbon reduction; County-wide carbon reduction; Adaptation and Resilience	
Governance:	Owner: Director, Environment; Head of Climate and Environment. Service lead: Climate Team – managers and project / theme leads. Stakeholders: Communications. Engagement and Partnerships. Waste services. GAPS team. Sustainable transport. Economy and Regeneration.	
Overview: The activity in this section covers general comms and engagement methods with businesses and encompasses all the council does to engage with stakeholders, participate in knowledge sharing, networks and events, and develop projects with partners. The council actively collaborates with partners and suppliers on projects like the Home Upgrade Grant and supporting Wiltshire Climate Alliance in running Green Open Homes events. The council also leads the Public Sector Climate Working Group, and participates in national and regional boards to share insights and expertise. The council (particularly elected members and the Leader of the council as well as senior officers) use these networks and individual opportunities to influence and lobby national policy and programmes. <u>Engagement with stakeholders - What's next for 2025</u> • The council will continue to use its communications such as press articles, e-newsletter, website and social media to share best practice and encourage sustainable practices by businesses, and these messages may be combined with waste, transport and air quality themes. • The council is working with Wiltshire Wildlife Trust to pilot their Blue Business Awards and businesses will be encouraged to take part in reviewing their impact on the water environment as part of wider climate and environment good practice. • Work in partnership with Wiltshire Climate Alliance, businesses, local councils and community groups towards a Wiltshire event to showcase sustainable practices and journeys towards decarbonisation. A particular aim is for businesses to increase visibility of net zero targets and action plans, including meaningful decarbonisation of their supply chains and plans for climate adaptation and resilience. <u>Longer term activity</u> • Seek to develop projects and identify funding, in partnership with key organisations, to deliver carbon reduction and climate adaptation projects • Ensure that existing networks and partnerships continue to benefit from knowledge sharing, as well as developing collaborative projects where this is appropriate and can add value to what organisations are doing individually		
Impact:	Direct emissions reduction impact: Low	

	Overall impact: High Priority: High Rationale: This deliverable primarily focuses on building capacity and fostering collaboration and lacks sufficient quantitative data on the types of projects that will be progressed to enable assessment of the carbon impact. However, as an enabling deliverable, it plays a critical role as the council cannot achieve carbon neutrality for Wiltshire without working in partnership with key local organisations.
Co-benefits:	Awareness and empowering; Resilient environment and society; Thriving economy and right skills; Capacity building and efficiency; Leading by example
KPI:	Target:
No KPI to date. Suggestions TBC:	
Businesses engaging with climate fund	
e-newsletter articles each quarter / year.	

X 5	Area of Focus:	Community Climate Action
Deliverable:	Empower Wiltshire communities to contribute towards climate action.	
Outcome:	Council carbon reduction; County-wide carbon reduction; Adaptation and Resilience	
Governance:	Owner: Director, Environment; Head of Climate and Environment. Service lead: Climate Team – managers, and community engagement officer to be proposed. Stakeholders: Communications. HR Staff Engagement; Engagement and Partnerships. Waste services. GAPS team. Sustainable transport.	
Overview: Effective communication and engagement with residents and community groups are essential as the council focuses on county-wide climate action and partnerships. The council aims to clarify where it can influence and support action, and where others should lead, with council support such as providing data and guidance on impactful, scalable actions. Area boards and town and parish councils offer key channels for communication and action, with many already including climate priorities in their action plans. Communications on climate action will continue through broad messaging via social media, press releases, and newsletters, while tangible engagement will focus on specific, place-based projects, like the Future Energy Landscapes project. Wiltshire’s Climate and Environment Forum serves as a sounding board for council initiatives, and the council will partner with relevant organisations to host events, such as the Climate and Environment Summer Showcase, to bring stakeholders together for action. Community Conversations and place-based groups will help develop local carbon reduction, energy generation, and adaptation projects. The council will also work with partners to explore how carbon literacy training can support county-wide action. <u>Community climate action – What’s next for 2025</u> Continue to use the council's e-newsletter, social media, website and press articles to promote community action on climate change		

- Explore climate awareness or training for communities
- A 'menu' of project ideas has been created for Area Boards, and this will be followed up with Area Boards to support climate and environment projects within the context of their annual action plans
- Explore how activity within Area Boards and good practice can be shared, and further guidance and support developed.
- Schedule a programme of topics for the Climate and Environment Forum to help shape the council's communications and projects
- Wiltshire Council will continue to work in partnership with Wiltshire Climate Alliance and Area Board groups to create events, building on the success of the 2024 Climate and Environment Summer Showcase, to bring together multiple stakeholders including residents, to share ideas and good practice, and generate tangible action to tackle key areas of emissions in Wiltshire.
- Roll out 'Green Scene' champions network, intranet site and resources to support staff to implement climate objectives in their workplace and at home.

Longer term activity

- Ensure that the council's website clearly explains how residents can get involved in implementation of climate actions within their communities, and contribute to the further development of the council's Climate Strategy delivery

Impact:	Direct emissions reduction impact: Low Overall impact: High Priority: High Rationale: This deliverable primarily focuses on building capacity and fostering collaboration and lacks sufficient quantitative data on the types of projects that will be progressed to enable assessment of the carbon impact. However, as an enabling deliverable, it plays a critical role by equipping communities, raising awareness, and fostering local ownership of climate solutions. These foundational efforts are essential for driving future, more impactful climate initiatives.	
Co-benefits:	Awareness and empowering; Resilient environment and society;	
KPI:		Target:
X8 – social media engagement • Website and social media engagement in response to climate campaigns (Total click-throughs on climate-related posts) • Reach (reflects times a post is read) • Engagement rate (reactions to a post in relation to views)		Consistent level of engagement in relation to posts and press releases
Review: consider adding a KPI to reflect e-newsletter articles each quarter / year.		
Review: consider adding a KPI to monitor funding secured to deliver community projects, perhaps via area board funding.		

Appendix 4.2 – Wiltshire Council Local Transport Plan 4 Electric vehicle
infrastructure sub-strategy March 2025



Wiltshire Council Local Transport Plan 4

Electric vehicle infrastructure sub-strategy
March 2025

Wiltshire Council

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Document history

Revision	Purpose description	Revised	Authorised
1.0	Final for approval	20.02.2025	21.02.2025

1. Introduction to county-wide sub-strategies

This document contains one of our four county-wide LTP4 sub-strategies and should be read alongside our Core LTP4 Strategy and place-based sub-strategies, as well as the Integrated Sustainability Assessment and Carbon Paper.

The four county-wide sub-strategies are as follows:

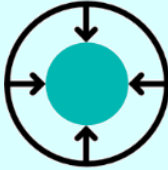
- Freight
- Parking
- Electric vehicle infrastructure
- Strategic transport (focusing on longer journeys, incorporating bus, rail and the Strategic Road Network)

Each of the four county-wide sub-strategies contains information on the current situation across Wiltshire, the specific policies and measures that are applicable, and an overview of how Wiltshire could look if the vision and objectives were realised. They all follow the same structure:

- Introduction to county-wide theme.
- Vision and objectives, applied to each county-wide theme.
- Policies and measures for each county-wide theme, structured by our Avoid, Shift, Improve and Support policy areas. A summary of the measures is included in Table 1-1.

A glossary of key terms and acronyms is provided in Appendix C of the Core LTP4 Strategy.

Table 1-1 Summary of measures

Policy area	Measure	County-wide sub-strategies			
		Freight	Parking	Electric Vehicles	Strategic Transport
Avoid unnecessary travel 	A1 Reduce the need to travel as often through combining journeys and providing digital options				
	A1.2: Review of consolidation centres	✓			
	A1.3: Planning for HGV deliveries in new developments	✓			
Shift to more sustainable modes of transport 	S1 Enable active travel to be the preferred choice for shorter journeys (or as part of a longer journey) by improving journey safety, access and quality				
	S1.8: Freight kerbside delivery management	✓			
	S2 Provide more public and shared transport options, and improve service quality				
	S2.1: Bus infrastructure and service improvements on key corridors				✓
	S2.2: Implementation of new DRT services				✓
	S2.3: Ride sharing, including shared taxis				✓
	S2.4: Support for more frequent or new direct rail services				✓
	S2.5: Support for rail capacity upgrades				✓
	S2.6: Supporting establishment of train servicing facilities				✓
	S3 Provide better access to public and shared transport services				
	S3.3: Improved waiting and interchange facilities at bus stops and stations				✓
	S3.4: Provision of real time passenger information at bus stops				✓
	S3.5: Railway station upgrades				✓
	S3.7: Explore the role and function of Park and Ride				✓
	S3.8: Smarter ticketing and payment on buses				✓
	S3.9: Accessible and inclusive buses and infrastructure				✓
	S3.10: Lower and simpler bus fares				✓
	S3.11: Multi-modal ticketing				✓
	S3.12: Coach parking				✓
	S4 Influence the demand for private car use, ensuring improved access and journey time reliability for those who need it most				
	S4.2: Improved car parking signage		✓		
	S4.3: Provision and consistency of disabled parking		✓		

Policy area	Measure	County-wide sub-strategies			
		Freight	Parking	Electric Vehicles	Strategic Transport
	S4.4: Review of parking payment methods		✓		
	S4.5: Review of parking charges		✓		
	S4.6: Review of our existing parking assets		✓		
	S4.7: Resident permit zones		✓		
	S5 Encourage and enable shift to more sustainable modes for freight				
	S5.1: Micro-consolidation and use of alternative modes for first/last mile	✓			
	S5.2: Shifting freight from road to rail	✓			
	S5.3: Safeguarding land for rail and consideration of rail freight interchange site	✓			
Improve vehicle, fuel and network efficiency 	I1 Facilitate and encourage move to low and zero emission vehicles				
	I1.1: Roll out public on-street residential charging at scale, focusing provision for residents with no off-street parking			✓	
	I1.2: Encourage and facilitate EV charging provision in new developments and refurbishments			✓	
	I1.3: Ensure that public EV charging is located through robust data analysis and community consultation, employing technology appropriate to its context.			✓	
	I1.4: Support the roll out of rapid charger hubs by the commercial sector, ensuring chargers are appropriately located and minimise any associated risks			✓	
	I1.5: Investigate the use of cable channel products to enable safe cross-pavement on-street home charging			✓	
	I1.6: Support EV uptake in corporate fleets and car clubs			✓	
	I1.7: Support and publicise regional and national schemes which help make EVs more financially accessible			✓	
	I1.8: Explore adopting policies and support to increase the number of EV taxis			✓	
	I1.9: Ensure that new EV chargers maximise accessibility for both drivers and footway users			✓	
	I1.10: Ensure new public EV charging includes provision for deprived areas and rural locations			✓	
	I1.11: Support for low emission freight	✓			
	I1.13: Support of cleaner, modernised buses and coaches, and related charging infrastructure				✓
	I1.14: Support rail electrification				✓
	I2 Enable safer, more efficient driving and operation of road networks				
	I2.3: Improvements to on-road signage on our strategic and major roads				✓

Policy area	Measure	County-wide sub-strategies			
		Freight	Parking	Electric Vehicles	Strategic Transport
	I2.4: HGV parking and rest stops	✓			
	I2.5: Moving traffic offences	✓			
	I2.6: Targeted road infrastructure or junction improvements to relieve congestion				✓
Support and enable delivery of the Avoid, Shift and Improve policy areas 	SU1 Empower people with the skills, knowledge and motivation they need to safely access more sustainable and healthier transport				
	SU1.12: Multi-modal marketing				✓
	SU1.13: Ticketing incentives				✓
	SU2 Work in partnership with Government bodies, stakeholders to improve transport for all				
	SU2.3: Work collaboratively with our key stakeholders				✓
	SU2.4: Supporting Community Rail Partnerships				✓
	SU3 Develop more detailed plans for how our LTP4 Vision and Objectives will be delivered				
	SU3.6: Freight Assessment and Priority Mechanism (FAPM)	✓			
	SU3.7: Define route restrictions through Advisory Freight Routes	✓			
	SU3.8: Develop a detailed parking operation and delivery plan		✓		

2. Electric vehicle infrastructure sub-strategy

2.1. Introduction to the Electric vehicle infrastructure sub-strategy

This LTP4 sub-strategy sets out the policies for electric vehicle infrastructure (EVI) across Wiltshire, providing the strategic direction for EV measures for the period up to 2027.

The transition from internal combustion engine (ICE) to electric powered vehicles is well underway, with electric vehicles (battery and plug-in hybrid) accounting for 25% of UK new vehicle sales in the year-to-date 2024¹, and 1,870,000 electric vehicles now on UK roads. The Government has regulated that no new ICE vehicles are to be sold from 2035, with the Zero Emission Mandate² dictating how manufacturers increase EV sales to achieve this goal (e.g. 80% EV sales by 2030).

Wiltshire Council has a role to play in enabling the transition to electric vehicles, having committed to a 2030 net zero target for its own activities and to seek to make the county carbon neutral by 2030.

Transport has the largest sector greenhouse gas (GHG) emissions in Wiltshire, predominantly created by private vehicles. In this respect the transition to EVs represents the greatest opportunity to reduce GHG emissions from our counties transport in the short to medium term.

A new, separate document, the Wiltshire EVI Strategy, is currently being developed by officers, and it will build on this LTP sub-strategy which will set the strategic direction. The Wiltshire EVI Strategy will cover 2024 to 2027. EV charging is an emerging sector with rapid innovation. After three years any EVI strategy for Wiltshire will need to be reassessed against emerging practices and technologies.

Wiltshire Council is currently applying for Department for Transport (DfT) Local Electric Vehicle Infrastructure (LEVI) capital funds to build on-street public residential EV chargers.

2.1.1. EV Charging

Electric vehicles are powered from an internal battery, which needs charging from a suitable electric supply, via an appropriate charging device. Chargers can be broadly grouped into private and public.

- Private chargers: installed for limited users
 - e.g. home chargers or business fleets.
- Public chargers: available to any paying customer
 - e.g. supermarket car park or motorway service station.

Providing these public EV chargers requires the creation of a large national infrastructure, led by a developing commercial sector of manufacturers, service providers, installers and maintenance technicians, all enabled by sizable private investment.

Most EV charging currently takes place at home, with 80% of all electricity used by EVs nationally being delivered through a charger running from a residential energy supply. Home charging is convenient and cost effective, currently benefiting from a low VAT rate on energy

¹ Society of Motor Manufacturers & Traders (SMMT): [UK new car registration data, UK car market - SMMT](#)

² Department for Transport, 2023: [A zero emission vehicle \(ZEV\) mandate and CO2 emissions regulation for new cars and vans in the UK - GOV.UK \(www.gov.uk\)](#)

and availability of specialist EV tariffs. A home charger can be installed through permitted development; however, a key requirement is access to off-street parking, leaving those households which park on-street unable to access home charging. This situation provides demand for public devices to provide on-street, overnight charging, local to those residences without access to home charging.

In recent years the numbers of EV charging devices across the UK has grown rapidly. In July 2024 the DfT registered 64,632 public charging devices, an increase of 47% over the last 12 months³. This rate of increase is necessary to ensure charger availability matches EV uptake, both meeting current demand and reassuring ICE drivers that moving to an EV is practical.

2.1.2. Wiltshire in 2024

Wiltshire has a unique character which must influence any approach to the deployment of EV charging devices.

- It is one of the largest local authorities by area in England with a population of 510,400 residents.
- The county is largely rural. When assessed by land designation it has only 7% urban areas against 93% being rural, as detailed in the Core LTP4 Strategy (Section 1.2)
- Residents are highly dependent on private vehicle usage. 85% of Wiltshire households have access to at least one vehicle⁴, higher than the UK average of 78%.
- 24% of households have no off-street parking⁵, leaving 55,121 households unable to benefit from permitted development and install a home charger.
- Wiltshire has a great variety of settlement types. The Core LTP4 Strategy (Section 3) identifies a typology of Principal Settlements, Market Towns and Rural Areas. Additionally, eleven settlements have a population greater than 10k, of which eight have significant conservation aspects.
- DfT data on private cars based in Wiltshire⁶ identifies that 2.6% are electric vehicles (plug in hybrid and battery), matching the UK average of 2.6%.

The above information shows Wiltshire is a largely rural county, with a variety of settlement types, offering varied context for charger installations. Residents are largely reliant on private vehicle usage, due to the rurality of the county, and matching the national level of electric vehicle uptake. A quarter of homes will be unable to install a home charger and are currently reliant on public EV charging provision.

2.1.3. EVI technologies

EV charging infrastructure has established categories, classified by speed of charge. Table 2-1 captures the main categories of chargers, as officially designated by DfT. Each charger category is further detailed by performance characteristics, suitable applications and an indicative cost comparison.

Charger types for public EVI encompass differences in technology, concept of use and supporting business model. These differences should allow for the selection of a charging

³ Department for Transport, July 2024:

[Markdown map LocalAuthority publication template.knit \(dft.gov.uk\)](#)

⁴ Department for Transport, 2023: [Driving licence holding and vehicle availability - GOV.UK \(www.gov.uk\)](#)

⁵ Field Dynamics, 2024: [On Street Charging \(acceleratedinsightplatform.com\)](#)

⁶ Department for transport, July 2024: [Vehicle licensing statistics data tables - GOV.UK \(www.gov.uk\)](#)

device which matches the specific requirements of a public location and the needs of its anticipated users.

Private home chargers are usually 7kW wall mounted units, benefitting from smart technology which allows access to EV specific energy tariffs. A 7kW power rating uses a standard domestic electric supply and is sufficient for overnight vehicle charging.

Benefitting from the convenience and cost benefits of home charging can be challenging for people who do not have the ability to install a home charger. This can lead to access and safety problems where cables trail across footways. Charging by trailing cables across the public highway is now prohibited in Wiltshire.

Table 2-1 : EV charger categories and their characteristics

Category (DfT recognised)	Power output	Example product tech type	Suitability and cost (£)	Typical locations
Low Speed	<3.7kW	Cable integrated	Slow overnight charging (£)	Domestic home power supply
Standard	3.7kW- <8kW	Lamp post integrated	Overnight charging (£)	Home chargers & on-street residential.
Fast	8kW - 49kW	Bollard	Couple of hours charging (££)	Destination car parks, e.g. supermarkets
Rapid	50kW - 149kW	Cabinet	Quick charging mid journey (£££)	Motorway service stations
Ultra-Rapid	150kW and above	Cabinet	Quickest charging available (££££)	EV charging hubs & forecourts

Innovative new Cable Channel products are now reaching the market, which promise safe cross pavement EV home charging by capturing the charging cable securely below the footway surface when in use. There are many issues to understand around the deployment of this new product on the public highway, especially regarding whole life maintenance and operational deployment. The council is contributing to the national discussion regards cable channel use and seeking to progress a limited trial of cable channels with Wiltshire residents. Trial findings and any national guidance will be used to develop an informed approach to cable channel use in Wiltshire.

Wiltshire Council will adopt a 'Right Charger, Right Place' approach, ensuring availability of differing charger types for deployment. This will allow for charging devices to be installed that match the specific characteristics and requirements of the locality into which they are placed.

2.1.4. Current EVI provision in Wiltshire

At July 2024 Wiltshire hosted 387 public EV charge points, of which 261 were Fast and 116 Rapid type chargers. These numbers are provided through the DfT 'Electric vehicle public infrastructure statistics' ⁷, developed in collaboration with ZapMap and published quarterly. Wiltshire council have been installing public EV charging devices since 2014. In 2020 the council began an upgrade programme replacing all physical charging devices and setting up

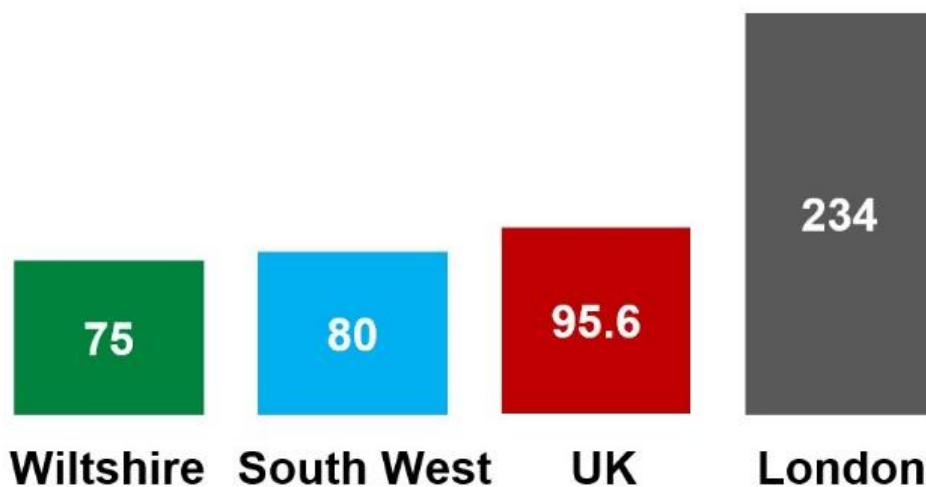
⁷ Department for Transport, July 2024: [Electric vehicle public charging infrastructure statistics: July 2024 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/electric-vehicle-public-charging-infrastructure-statistics-july-2024)

new back office and maintenance contracts to provide the service and reliability customers expect.

The council's public charger instalments have to date built 29 fast and 6 rapid charging devices. These have all been built off-street in council owned car parks, distributed to ensure settlements with over 10k population have access to at least one charger. The remaining 232 fast and 110 rapid chargers are destination chargers installed by the commercial sector.

The DfT collates national data on 'devices per 100k population', which is used to compare the density of provision across different areas. Wiltshire currently achieves 75 devices/100k pop., slightly behind West of England (80) and the UK average (95.6). The bar chart in Figure 2-1 allows comparison of public EVI density across the UK.

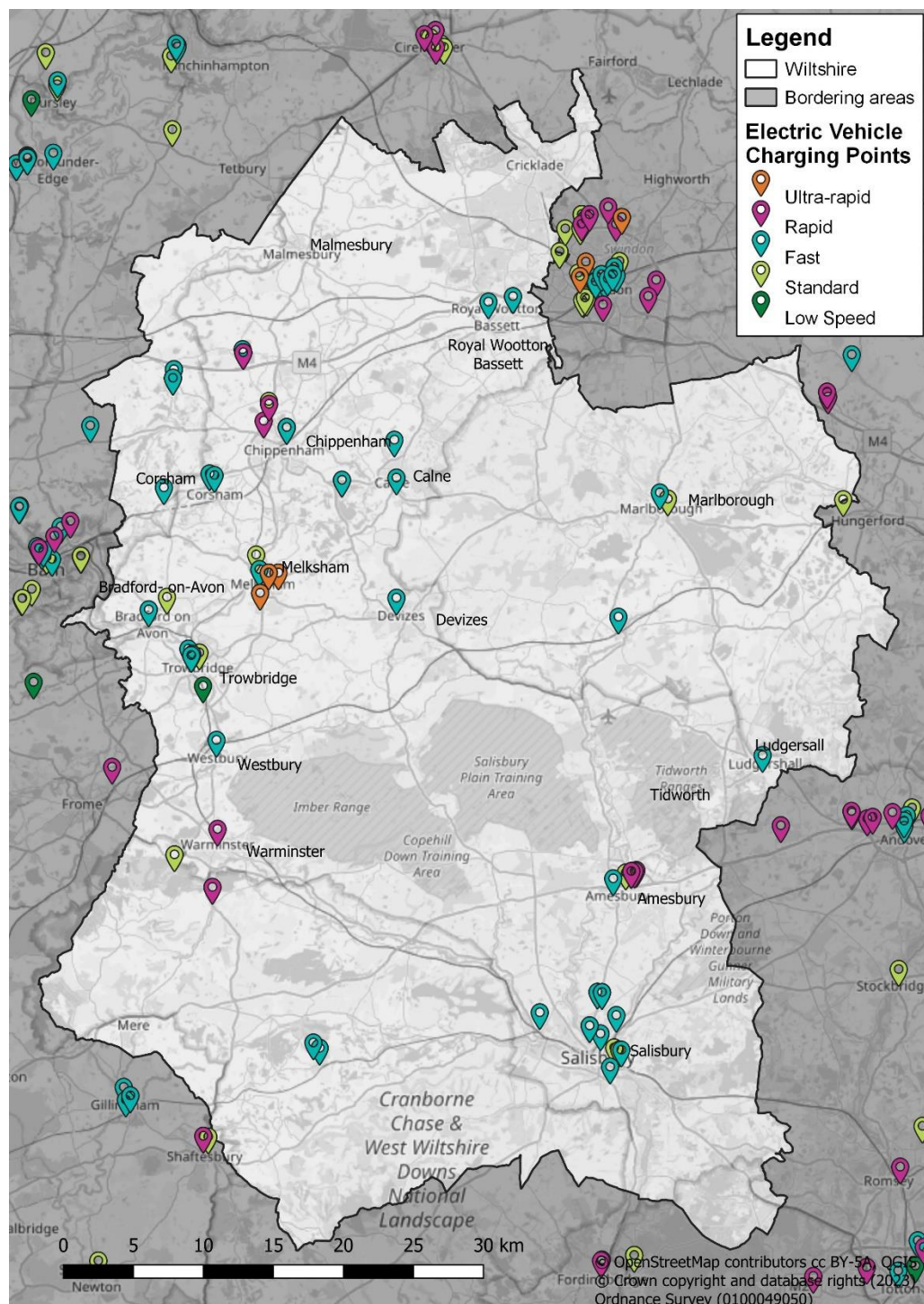
Figure 2-1 Comparison of public EVI density across the UK (devices per 100k population)



London typically benefits from dense urban layout and a higher percentage of population able to afford an EV. These factors have made EVI deployment more commercially attractive, lowering install costs and raising utilisation respectively. London's significantly higher density metric of 234 devices/100k pop raises the UK average.

Due to this Wiltshire is best compared to South West data, which measures performance against local authorities with similar geography and challenges. The geography of Wiltshire introduces challenges to providing EVI coverage. At present all council-built chargers are in settlements over 10k population, to meet the greatest demand first. However, this leaves large rural areas without access to any local public charging. Figure 2-2 shows a map of EVI locations in Wiltshire, taken from ZapMap data. This emphasises the skewed distribution of chargers to urban areas and the underserved nature of rural settlements.

Figure 2-2 Map of EVI locations in Wiltshire⁸



2.1.5. Predictions

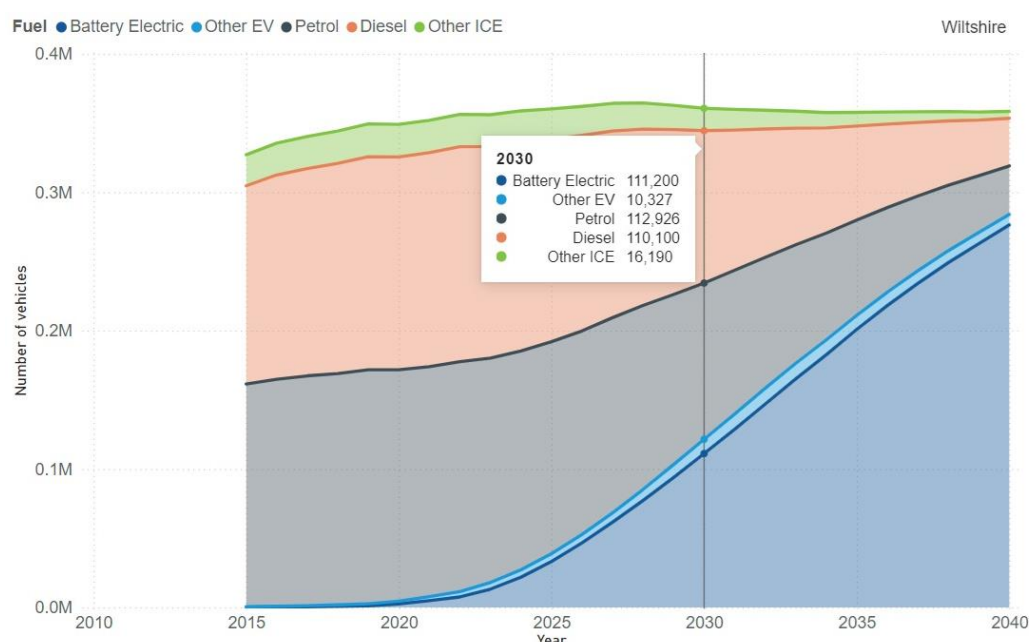
Wiltshire Council has access to DfT approved modelling of future transport scenarios.⁹ This modelling uses indicative estimates to provide the most realistic projections possible over

⁸ National Chargepoint Registry, Oct 2024: [Find and use data on public electric vehicle chargepoints - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/collections/find-and-use-data-on-public-electric-vehicle-chargepoints)

⁹ National EV Insight & Support (NEVIS), 2024: [Home - National EV Insight & Support | Delivered by Cenex](https://www.gov.uk/government/collections/home-national-ev-insight-support-delivered-by-cenex)

the short and medium term. These predictions are generated from current understanding of influencing factors, such as vehicle ownership and economic growth, and how these might change over time, given anticipated future events.

Figure 2-3 Predicted Wiltshire vehicle fleet make up by fuel type



The graph in Figure 2-3 shows the NEVIS modelling predictions over time for the total vehicles based in Wiltshire. It assumes a medium uptake scenario for the transition to ultra-low emission vehicles, influenced by current regulatory drivers, including the Zero Emission Vehicles (ZEV) mandate and 2035 ICE sales ban. The fleet numbers encompass both private vehicles and light commercial vehicles only.

From 2027 onwards the total fleet numbers plateau off, representing a changing relationship of residents with vehicle ownership. Over time the fleet of ICE vehicles reduces, while electric vehicles numbers grow. Focusing on the figures for 2030, as this is the committed net zero date for Wiltshire Council, we see a prediction that a third (33.7%) of all vehicles will be electric by this date.

The NEVIS modelling also produces predictions of the number of EV charging devices required in Wiltshire to meet the demands of a greatly increased electric vehicle fleet in 2030. Table 2-2 compares the current number of EV charging devices against the predicted requirements in 2030, identifying the percentage increase this represents.

Table 2-2 Required growth in charging devices over time

Charger Type	Devices in 2024	Devices for 2030	% Increase
Fast (including Standard)	261	3,299	1,264%
Rapid (including Ultra-Rapid)	126	300	238%

In July 2024 the number of rapid charging devices in Wiltshire was already over a third of the predicted number required in 2030. Rapid chargers currently make the most profit per device for commercial operators, due mainly to the reduced dwell times and tariff premiums. These factors give confidence that the market will build the rapid devices required to meet the 2030 device target without public funding assistance.

Conversely, the target figure for fast chargers in 2030 represents an increase of over 1,200% on current device numbers. These modelled predictions go further, recommending that 93% of these chargers provide less than 8kW power output, a rating ideal for overnight EV charging. This requirement supports a focus for on building public on-street residential charging to support residents who cannot install a home charger.

Commercial Charge Point Operators (CPOs) prioritise building public chargers where there is currently a strong business case, based on existing EV ownership and socio-economic data showing high likelihood for near future EV adoption. However, the council is also concerned with the social equity of EV charging provision, ensuring that residents in economically deprived and rural areas aren't excluded from the transition to electric.

2.1.6. Local Electric Vehicle Infrastructure (LEVI) project

The UK government has recognised the nationwide problem of lack of home charging for drivers without off-street parking in 'Taking charge: the electric vehicle infrastructure strategy'.¹⁰ This strategy identifies the need for a rapid roll out of on-street residential public charging, with the Government then choosing to stimulate this through the Local Electric Vehicle Infrastructure (LEVI) project.

The £380 million LEVI funding is primarily targeted at addressing the need for EV charging in areas with lower levels of residential off-street parking, with a portion allocated to each local authority based on their scoring against associated metrics. Wiltshire has been allocated £3.88m for infrastructure and £480k to fund officers for the council EVI team.

A requirement of LEVI capital funding is that Councils leverage the expertise and investment of the private commercial sector. To this end Wiltshire will be partnering with the private sector to fund charging roll out.

2.1.7. Impacts of EV adoption

Developing public EV charging infrastructure in Wiltshire has the key practical impact of enabling residents to transition from ICE to electric powered vehicles. Residents and travellers already driving an EV will be able to make a wider selection of journeys across Wiltshire, knowing public EVI is available to fuel up mid journey. Residents considering making the move to EV will witness chargers visible on nearby streets and at often visited destinations. This will, in turn, alleviate charging anxiety suffered by drivers considering the move to EV, which is currently one of the biggest barriers to adoption.

The transition to electric vehicles will also build county resilience, moving from reliance on imported fossil fuels to electricity generated domestically, or even more positively electricity generated by community energy schemes. Practical impacts will be removal of sensitivity to fossil fuel price volatility and further distancing county activities from the impacts of global events which effect the oil supply chain.

Another tangible impact from greater EV adoption in Wiltshire is improved local air quality. Electric vehicles have zero tailpipe emissions, meaning they do not emit poisonous gases such as NOx, unlike ICE powered vehicles. Greater EV uptake in the county will help to improve local air quality by removing the point sources of polluting petrol and diesel engines. This is especially good news for the eight Air Quality Management Areas in Wiltshire, where air quality has been found to regularly exceed maximum acceptable levels due to local transport emissions.

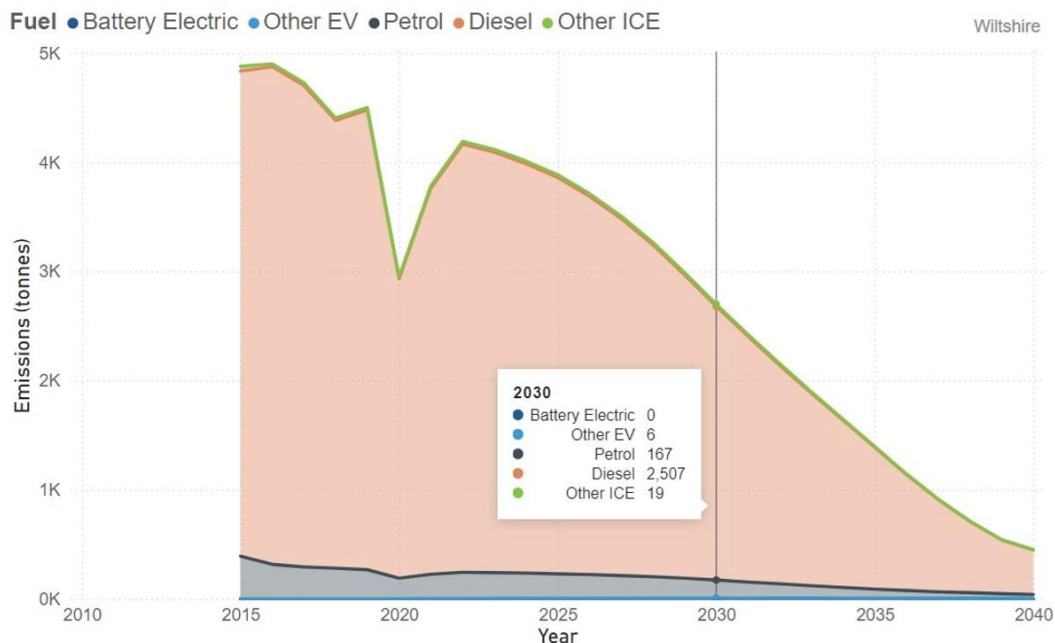
NEVIS modelling also takes the projected future Wiltshire vehicle fleet and calculates the fleet emissions over time for Carbon Dioxide (CO₂e), Nitrous Oxide (NOx) and Particulate Matter (PM). Carbon emissions over the forecast period, steadily fall due to a combination of EV adoption and the continuous emissions reductions of the ICE vehicles still for sale. By

¹⁰ Department for Transport, 2022: [UK electric vehicle infrastructure strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/103111/uk-ev-infrastructure-strategy.pdf)

2030 fleet CO²e emissions are predicted to have fallen 28.9% from current values. Electric vehicles do account for some CO²e emissions due to the power grid emissions from producing the electricity that fuels them. This again reduces over time due to the further decarbonisation of the national power grid.

NOx emissions over the forecast period are shown in Figure 2-4. These emissions are shown to fall rapidly over time as the Wiltshire fleet changes in makeup. NOx emissions are largely produced by diesel vehicles. The rapid transition of private vehicles and light commercial vehicles from diesel to electric power is the main contributor to this effect.

Figure 2-4 Projected NOx emissions for Wiltshire vehicles by fuel type



All vehicles also produce particulate matter (PM), small particles of 2.5 microns or less, which can be harmful if inhaled in quantity over time. PM is produced from tailpipe emissions of burnt fuel and from operational tyre and brake wear. Tailpipe PM emissions are predicted to rapidly reduce over time with the transition to EV. However, PM from wear remains static over time, due to EVs emitting PM from the same mechanisms, tyres & brakes. Indeed, EVs have been shown to produce more PM emissions from wear, due to increased vehicle weights and associated tyre wear. However, it is also proposed that the change in focus for EV production from high end to mass market models will see average EV weights much reduced. The widespread use of regenerative braking on EVs will also reduce associated PM from brakes, as this uses the electric motor to slow the vehicle and recaptures energy in doing so.

Other benefits from EV adoption become evident to drivers when they make the transition from ICE vehicles. Immediately drivers notice the less stressful driving experience from the lack of engine noise and gear changes. The use of regenerative braking offers potential for one pedal driving, which can deliver a more pleasant driving experience. EVs have far fewer moving parts subject to mechanical failure and correspondingly offer cheaper lifetime maintenance costs. Fuelling an EV can be much cheaper than a comparative ICE vehicle, if the EV can use a home charger and access a supporting tariff. Relying on public charging incurs more tax and business costs, bringing cost parity with comparable ICE vehicles, especially if solely relying on rapid chargers.

2.1.8. Site selection process

The council needs to ensure that public EV charging is built in strategically appropriate locations. In the short term this is relevant to the roll-out of public on-street residential chargers provided through the LEVI funding. We will ensure that site selection is both data led and community informed, utilising data to identify general areas (e.g. postcodes, LMAOs) and then refining the precise location through dialogue with the local community and commercial partner charge point operator (CPO).

Accessing and interrogating datasets will be critical for robust site selection. The following categories are examples of datasets which will guide site selection:

- Electrical power availability
- Existing EVI locations
- Existing EV ownership
- Propensity to own an EV
- Index of Multiple Deprivation
- Buildings with no off-street parking
- Resident Parking Zones
- Conservation Areas

Once data led analysis has identified areas for public chargers, we will need to consult with the local community to refine EVI locations to reflect what is happening on the ground. The council has been collecting resident suggestions for charger sites. We will utilise the Area Boards, established community engagement meetings, to contact a wide range of local stakeholder groups. Existing parish and town council engagement meetings / newsletters will be utilised to allow councillors to inform site selection. All these routes will be explored to access local community knowledge, highlighting information such as existing resident parking activities and current resident EV charging practices. Being informed by the community will help us identify streets and locations for the installation of EV charging which are more likely to meet with community support.

2.1.9. Typical challenges and opportunities

Table 2-3 LTP4 challenges and opportunities for EVI

LTP4 challenges and opportunities for EVI	
	Rurality The varied, dispersed and largely rural nature of Wiltshire means many people have to rely on their cars, and presents challenges around connectivity by other modes, which can lead to social isolation.
• Wiltshire settlements are diverse in character, with their differences varying beyond urban or rural, to reflect local socioeconomic and geographical issues. • Rural settlements often have limited road width and few footways. This reduces the availability of suitable locations to install public EV charging devices. • Rural buildings across Wiltshire vary considerably, with most villages having a mix of old housing stock with on-street parking and housing with off-street parking. • Local community organisations may be able to host EV charging devices in their car parks, for the mutual benefit of residents and local services.	



Health, wellbeing and safety

There are pockets of inequality and deprivation across the county related to health, wellbeing, road safety and access to facilities.

- Providers of EV charging focus on commercially attractive site, to maximise income. This approach tends to primarily serve affluent areas with existing EV uptake.
- The price of new EV's is a barrier for residents with low incomes. However, the second-hand EV market is growing with a wider range of lower priced vehicles.
- Areas of inequality and deprivation often associated with poor air quality, which EV adoption with help improve.
- The council can help ensure all communities are enabled to drive electric by ensuring some charging devices are installed in areas suffering inequality and deprivation.



Economic growth

Economic growth in Wiltshire is slowing and an ageing population poses an increasing challenge.

- Building the new EV charging infrastructure will create economic activity in the district, from both the construction phase activity and as a draw to bring customers to businesses offering charging.
- Commercial partners engaged by the council to provide EVI will be encouraged to sub-contract delivery to local businesses.



Futureproofing transport

The transport network in Wiltshire is not currently prepared for future maintenance, technological, environmental and societal changes.

- The council provision of EVI to date has been enabled by government grants and council funds. The scale of required future growth demands commercial sector involvement and funding.
- EVs and charging infrastructure are rapidly innovating sectors, responding to emerging socio-technical factors. The Wiltshire EVI strategy will need to be reviewed regularly, as it could become inappropriate if it is based on inaccurate assumptions regards technology driven change.



Decarbonisation

Wiltshire Council acknowledged a climate emergency in 2019, and decarbonising transport is critical to achieving the Council's carbon neutral ambitions.

- The cars and vans we drive offer the greatest scope for transport decarbonisation, as they account for the majority of related carbon emissions in Wiltshire.
- A wide range of electric vehicles are now available, with options suitable for nearly all use cases. EV uptake in Wiltshire is currently slightly above the national average.
- The second-hand EV market is growing, as more lease contracts end, releasing used vehicles onto the market. The availability of more affordable, used EVs will enable access for a wider range of residents.
- Commercial fleets are driving the transition to electric vehicles, with sales to lease companies accounting for 80% of all EVs sold. A major upcoming challenge for all transport professionals is to enable this level of EV uptake for the wider public.
- The electrical network across Wiltshire has many areas that are near or over capacity. Distributed low powered chargers will usually find opportunity for

installation. However, larger charging hubs and rapid chargers often require network upgrades to enable installation.



Unique environment

We have a responsibility to protect and enhance Wiltshire's unique natural, built and historic environments.

-
- Many Wiltshire residents live in conservation areas, placing extra requirements on charging technologies deployed there in order to protect the county's unique environments.
 - The financial incentives to access EV home charging will increase pressure for residents to replace gardens with off street parking, where they have not already done so.
-

2.2. Vision and objectives for EVI

2.2.1. Vision

The long-term aspiration for transport in Wiltshire to 2038 and beyond, is set out in the LTP4 vision:

A safe and connected transport system which protects the county's unique built, natural and historic environment, making this accessible for all, supports sustainable economic growth across Wiltshire's communities and contributes to a low carbon future.

Delivery of this vision will enable residents and travellers in Wiltshire to shift to more sustainable transport modes, such as public transport, cycling and walking. For those who need to drive, opportunities to switch to electric will be enabled by increased access to charging infrastructure where and when required.

Charging devices would have been installed at sites selected through a data led and community informed process. The broad areas in most need of charging infrastructure were identified using commercial and social equity focused data, while specific charger locations were determined in partnership with residents, at sites they agreed were appropriate.

Collaboration with commercial charge point operators would have ensured chargers were built in commercially attractive locations, alongside locations identified by Wiltshire council which serve areas suffering deprivation or rural isolation.

A range of charging technology has been deployed, minimising street furniture and blending into the local streetscape where possible. This 'right charger, right place' approach has minimised visual impact in conservation areas and enabled accessibility for both charging drivers and footway users.

2.2.2. Objectives

The relationship between the LTP4 objectives and this EVI sub-strategy are set out below in Table 2-4.

Table 2-4 LTP4 objectives and relevance for EVI

LTP4 objectives and relevance for EVI		
	Supporting rural communities	To decarbonise private vehicles , and to tackle social isolation by improving multi-modal and digital connectivity across the whole county, especially within and beyond our rural settlements.
		Facilitating EV charging will support residents of rural communities to sustainably access jobs and services, as these areas more often suffer from limited shared and public transport options.
	Improving health, wellbeing and safety	To provide a safe transport network which improves quality of life, health and wellbeing in Wiltshire, promoting more equal and inclusive access to opportunities.
		The council can help support all communities to drive electric by ensuring charging devices are installed in areas suffering deprivation or isolation.

	Ensuring that charging devices are installed to maximise user accessibility, for both EV drivers and footway users.
	Increasing the transition from ICE to electric vehicles will improve poor air quality, which would otherwise adversely affect health.
	Economic growth To provide a reliable and efficient transport network which maximises sustainable economic growth opportunities across Wiltshire's varied localities.
	Private vehicle use is vital when public, shared or active travel alternatives are not feasible. Enabling travel by private electric vehicle in these areas provides residents a more sustainable journey option. Enabling the adoption of electric light commercial vehicles helps decarbonise the activities of Wiltshire businesses and commercial deliveries, whilst often providing reduced operating costs.
	Futureproofing transport To ensure that Wiltshire has a resilient transport network that is prepared for continuing maintenance, technological, environmental and societal changes and will meet the needs of future generations.
	Providing EV charging will facilitate the movement towards a more sustainable future and help meet predicted long term local, regional and national transport challenges.
	Transport Decarbonisation To expedite the reduction of the total carbon emissions in the county that are due to transport, contributing to making Wiltshire Council carbon neutral by 2030, and leading the county towards Net Zero.
	The cars and vans we drive offer the greatest scope for transport decarbonisation, particularly in Rural Areas where other modes of transport are more limited.
	Protecting and enhancing our unique environments To ensure the transport network in Wiltshire protects and enhances our natural and built environments, including our three National Landscapes, National Park and our historic towns and settlements.
	Facilitating the roll-out of EVs will improve air quality and reduce noise pollution, particularly in areas with high volumes of car traffic. Ensuring EV charging devices minimise visual impact will help to maintain the character of conservation areas.

2.3. Policies and measures

2.3.1. Introduction

The LTP4 policies are set out in detail in Section 2.3 of the Core LTP4 Strategy.

The following sections consider policies specifically from the perspective of EVI and outlines relevant measures for how we plan to deliver them. The four policy areas orbit the core of the LTP4, its vision and objectives. In the particular case of EVI, all measures relate to the **Improve** policy area.

Our objectives are set out below, and in Section 2.1 in our Core LTP4 Strategy. Each policy meets some or all our objectives, and these are depicted by the relevant icons.



Objective 1 - To decarbonise private vehicles, and to tackle social isolation by improving multi-modal and digital connectivity across the whole county, especially within and beyond our rural settlements.



Objective 2 - To provide a safe transport network which improves quality of life, health and wellbeing in Wiltshire, promoting more equal and inclusive access to opportunities.



Objective 3 - To provide a reliable and efficient transport network which maximises sustainable economic growth opportunities across Wiltshire's varied localities.



Objective 4 - To ensure that Wiltshire has a resilient transport network that is prepared for continuing maintenance, technological, environmental and societal changes and will meet the needs of future generations



Objective 5 - To expedite the reduction of the total carbon emissions in the county that are due to transport, contributing to making Wiltshire Council Carbon Neutral by 2030, and leading the county towards net zero.



Objective 6 - To ensure the transport network in Wiltshire protects and enhances our natural and built environments, including our three National Landscapes, National Park and our historic towns and settlements.

2.3.2. Improve



Improve vehicle, fuel and network efficiency – through roll out of electric vehicles and charging infrastructure, alternative fuels and technology improvements.

Policy I1: Facilitate and encourage move to low and zero emission vehicles.



Measure I1.1: Roll out public on-street charging at scale, focusing provision for residents with no off-street parking

Description

Residents without off-street parking are currently unable to install home chargers and must rely on public EV charging. This issue is recognised as the main national barrier delaying wider EV uptake. Mass deployment of public on-street EV chargers is necessary in areas where the majority of residents lack off-street parking. It is planned that these EV chargers will be installed using Local Electric Vehicle Infrastructure (LEVI) funds from DfT in the short term to medium term.

Benefits

- Ensures those residents who cannot instal home chargers have access to local public EV charging. This helps all residents transition to EVs by removing charging anxiety through the provision of convenient local charging options.

Possible locations

Settlements across Wiltshire district, focusing on areas where the majority of residents are required to park on-street.

Measure I1.2: Encourage and facilitate EV charging provision in new developments and refurbishments

Description

It is essential that our new developments and refurbishments are responsibly planned and delivered, maximising the opportunities to roll out EVI. In particular, our Design Guide¹¹ stipulates that “*developers should incorporate electric vehicle charging points to private residential on-plot parking spaces, and communal EV charging points within residential parking courts and commercial, retail and office car parks, wherever possible.*” This is in turn supported by Building Regulations AD-S, which sets minimum EVI requirements by development type.

Benefits

- New developments and building refurbishments are commissioned with the necessary infrastructure for occupants to adopt electric vehicles immediately.

Possible locations

All new development and refurbishment sites across the Wiltshire district.

Measure I1.3: Ensure that public EV charging is located through robust data analysis and community consultation, employing technology appropriate to its context

Description

Where the council can influence the deployment of public EV charging, we must ensure that it is placed in the most appropriate location. Robust data analysis must be complimented with community consultation to find practical locations for chargers that are supported by residents. Each location will have specific characteristics and must employ

¹¹ Wiltshire Council 2024: [Guidance for Neighbourhood Planning within Wiltshire: Integrating High Quality Design](#)

Measure I1.3: Ensure that public EV charging is located through robust data analysis and community consultation, employing technology appropriate to its context

charger technology which fits into that context, e.g. minimal visual impact in conservation areas.

We will explore the deployment of solar canopies linked with EV charge points in council car parks and will identify suitable locations in which where aligning these technologies demonstrates a clear business case.

Benefits

- Public EV charging that fits into the local streetscape and has the support of residents.

Possible location

The public highway and car parks across Wiltshire.

Case Study: Five Rivers Leisure Centre, Salisbury – Car Park Solar Canopies & EV Charging

Wiltshire Council has a goal of net zero carbon emissions by 2030. Energy use in council buildings is the biggest (66%) source of location-based council carbon emissions. To address this challenge, we have a program of renewable energy installs across council buildings.

The Five Rivers Leisure Centre in Salisbury is a high energy demand, council run site. Previously installed heat pumps and roof solar panels had decarbonised energy use as much as the building allowed.



Solar car park at Five Rivers Health and Wellbeing Centre, Wiltshire Council

However, the centre has a large car park to accommodate visitors from across the city. This area provided the opportunity to increase on-site renewables generation by installing canopies over the car parking bays, supporting roofing with integrated solar panels.

Three gullwing canopy structures were installed, in collaboration with 3ti Energy Hubs, designer and installer of solar, storage and smart EV charging, covering 70 parking spaces. The car park canopy structure was constructed from Glulam, renewable, recyclable wood laminations bonded together to offer a natural alternative to steel or concrete, reducing the constructions embodied carbon. The glulam canopy is topped with bifacial solar panels with a combined total capacity of c.220 kWp. Since installation the solar arrays have generated more than 20MWh per month.

Additionally, an innovative Papilio3¹² solar EV charging hub was added to the car park. This prefabricated unit from 3ti combines power from its solar panelled roofing with local mains supply to power ten fast EV charger bays, allowing visitors charging at Five Rivers to be literally 'driving on sunshine'.

These initiatives have maximised the sites potential for energy generation, with the combination of site renewables now providing up to 630kWp of energy generation, capable of meeting 20% of the centre's electricity demands.

¹² [Papilio3 Solar EV Charging Hub For Fleets & Workplaces; Papilio3 Solar EV Charging Hub For Fleets & Workplaces \(wiltshire.gov.uk\)](https://www.wiltshire.gov.uk/papilio3-solar-ev-charging-hub-for-fleets-workplaces)

Measure I1.4: Support the roll out of rapid charger hubs by the commercial sector, ensuring chargers are appropriately located and minimise any associated risks

Description

The council will enable the private sector in rolling out public rapid charging. Proposals will be supported where rapid charger locations meet traveller's needs and incorporate measures to minimise any associated risks.

Benefits

- The ability to rapidly charge an EV makes longer journeys possible and provides more public charging options for residents.

Possible locations

County-wide, but especially serving the major road network.

Measure I1.5: Investigate the use of cable channel products to enable safe cross-pavement on-street home charging

Description

The council will investigate the use of cable channel products to allow residents access to on-street charging from a home energy supply, via safe cross pavement charging. Policies around the deployment and operation of cable channels should be informed by a limited deployment with residents, as these new products currently lack national policy on adoption.

Benefits

- Residents who park on-street can access home charging, using a solution that ensures safe cross pavement operation. Home charging offers reduced charging costs and increased convenience.

Possible locations

Any household lacking off-street parking which meets operational requirements, anticipated to cover suitability of property curtilage, footway material and kerbside parking.

Measure I1.6: Support EV uptake in corporate fleets and car clubs.

Description

The council will encourage corporate vehicle fleets to transition to electric vehicles, referencing best practice from the council fleet transition. Where car clubs operate in Wiltshire, they will be encouraged to offer EV's, including through provision of supporting EVI.

Benefits

- Reduces the GHG emissions from the regional vehicle fleet and improves air quality in the district.

Possible locations

Business parks and commercial premises across Wiltshire.

Case study: Wiltshire Council Fleet Transition to electric

Fuel consumption of council fleet vehicles is the third biggest source of location-based council carbon emissions, after building energy usage and streetlighting.

Moving from internal combustion engine to electric powered vehicles has two main impacts: carbon emissions from fuel use are greatly reduced; and local air quality is improved through the removal of all tail pipe emissions. The business case for fleet transitions extends beyond environmental benefits with reduced running costs from fuel and vehicle maintenance.

Wiltshire Council operates a large vehicle fleet, with 195 vehicles operated by Highways alone. The market availability of electric models has seen the transition to electric power focused to pool cars and light commercial vehicles. Currently 45% of fleet vehicles driven by council employees are now electric, with plans to continue the transition whenever old vehicles come up for replacement. To ensure the EV fleet keeps running the council has installed 120 bays of fast charging across its sites and depots.

To date the carbon saving from fleet electrification is calculated at 100 tCO₂e. In future, fleet vehicles which can't be electrified will change fuel type to HVO (Hydrotreated Vegetable Oil), which offers a 90% reduction in net CO₂e over equivalent diesel use.



Unveiling of 61 electric vans in December 2023, Wiltshire Council

Measure I1.7: Support and publicise regional and national schemes which help make EV's more financially accessible.

Description

The council will keep updated on national schemes to promote the wider transition to low emission vehicles, publicising and promoting to residents as appropriate.

Benefits

- Enabling as many Wiltshire residents as possible to transition to electric vehicles.
- Ensuring the local air quality benefits of increased EV ownership to be felt in economically deprived areas.

Possible locations

All residents across the county.

Measure I1.8: Explore policies and support to increase the number of EV taxis

Description

The council will explore which policies and support measures will promote and incentivise the uptake of electric vehicles by taxi drivers serving Wiltshire. Examples of measures that could be adopted include installing taxi specific rapid chargers and offering financial incentives associated with license fees and charges.

Benefits

- Enables taxi operators to reduce their impact on local air quality and GHG emissions, whilst offering a potential reduction in operating costs.

Possible locations

Taxi ranks and taxi firms across the county, usually located in principal settlements and market towns.

Measure I1.9: Ensure that new EV chargers maximise accessibility for both drivers and footway users

Description

Public standards are now available demonstrating how to make EV charging points accessible for the greatest amount of public, including those with disabilities such as limited mobility. These accessibility standards describe appropriate charger product and bay design. The council must ensure that public EV chargers all meet a minimum level of accessibility for drivers, and that a proportion are fully accessible. EV chargers must be installed in a way as to ensure a minimum level of accessibility for footway users.

Benefits

- EV chargers become easier to use for everyone, with specific charger sites meeting the explicit needs of disabled users.

Possible locations

All public EV charger installs across Wiltshire.

Measure I1.10: Ensure new public EV charging includes provision for deprived areas and isolated rural communities.

Description

Charge point operators face financial concerns that dictate they only install chargers with an existing commercial business case. This approach leaves most rural locations and areas suffering deprivation without any EV charging provision. The council will seek to ensure social equity of charging provision, such that local public charging is available to rural residents and those living in areas of deprivation.

Benefits

- All residents have access to local public EV charging, enabling transition to EVs for the widest range of drivers and future proofing for when second hand EVs make adoption more affordable.

Possible locations

Rural settlements and areas of deprivation across Wiltshire.

Wiltshire Council

Local Transport Plan 4

(LTP4) 2024

Wiltshire Council

The logo for Wiltshire Council, featuring a stylized white wave or swoosh line beneath the text.

This document was published by Wiltshire Council

Appendix 4.3 – Wiltshire Council Local Transport Plan 4 Draft LTP4 Carbon paper
October 2024



Wiltshire Council Local Transport Plan 4

Draft LTP4 Carbon paper
October 2024

Wiltshire Council

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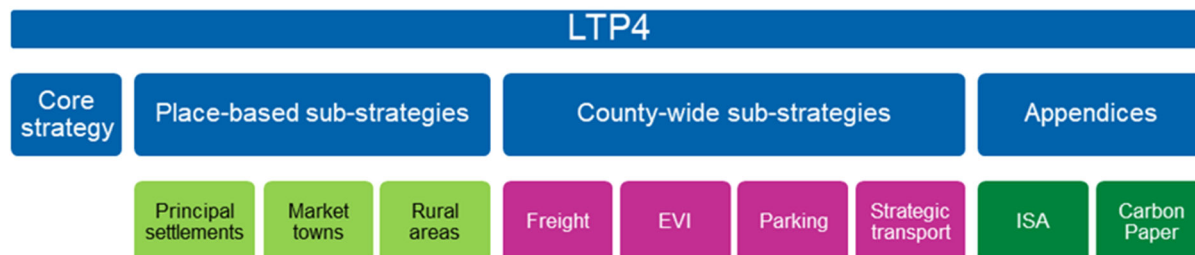
Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised
1.0	Full draft for Officer and Member review	TM	GR	PB	LB
2.0	Updated draft in line with Officer and Member feedback	TM	PB	JS	LB
3.0	Updated draft in line with wider Cabinet feedback	TM	PB	LB	LB
4.0	Updated draft in line with further wider Cabinet feedback	TM	PB	LB	LB
5.0	Updated draft in line with further wider Cabinet feedback	TM	PB	LB	LB

1. Introduction

This Appendix to Wiltshire Council's LTP4 provides wider context and supporting detail for the consideration of greenhouse gas emissions within the rest of the LTP documents, as shown in Figure 1-1.

Figure 1-1 – LTP4 structure



The analysis and assessment presented in this Appendix align with draft LTP Quantifiable Carbon Reduction (QCR) guidance produced by the DfT for consultation, but never finalised or formally published (explained further in Annex A). The term carbon is used throughout the document as a shorthand for transport greenhouse gas emissions, as carbon dioxide accounts for nearly all of the greenhouse gas emissions from transport (see Box 1).

Box 1: Carbon, CO₂, CO₂e and greenhouse gases

The terms carbon, carbon dioxide, CO₂, CO₂e and greenhouse gases (GHGs) are often used interchangeably.

Climate change is driven by a range of GHGs including carbon dioxide (CO₂). CO₂ is the dominant greenhouse gas, particularly for the transport sector (accounting for 99% of transport GHG emissions). Other GHGs can be expressed in terms of the amount of CO₂ that would cause the same level of warming, in which case totals are expressed as CO₂ equivalent or CO₂e.

The term carbon emissions is often used as shorthand for CO₂ and CO₂e emissions by organisations such as the DfT (for instance in their Quantifiable Carbon Reduction guidance). The term is used in this way in this report.

The remainder of this Appendix comprises the following sections:

- **Section 2** provides context to explain the importance of considering carbon in the LTP4, setting out:
 - An overview of **international and national context**, the climate emergency and the role of the transport sector in generating the greenhouse gas emissions that cause climate change. A summary of the UK national response to the need for decarbonisation is given including the DfT's draft QCR guidance on including carbon considerations in LTPs.
 - A summary of **Wiltshire's response to the climate emergency** and the transport decarbonisation challenge that the LTP4 needs to contribute to addressing. Key aspects of the **sources of transport emissions within Wiltshire** are outlined, along with an analysis of the **scale of the emissions gap** between projected transport emissions baselines and a decarbonisation pathway that would align with national decarbonisation commitments.

- **Section 3** provides a summary of the ways in which transport decarbonisation can be achieved and the role of the LTP4 in supporting emissions reduction, setting out:
 - The **key drivers of transport carbon emissions** and their implications for the types of measure required to reduce emissions and the **need to account for whole lifecycle carbon implications** of any transport system changes proposed in the LTP4.
 - The **role of carbon considerations in the development** of Core LTP4 Strategy and sub-strategies, through including carbon in the LTP vision and objectives and using the need for decarbonisation to structure the four policy areas identified.
 - The **proposed LTP4 measures** within each policy area, illustrating the way in which they support carbon reduction as well as delivering wider benefits.
 - An **estimate of the scale of the potential emissions reduction that could be supported by the proposed LTP4 measures**, if implemented in combination with action from individuals, organisations and other sectors; and the proportion of the emissions gap between projected emissions and the identified decarbonisation pathway that the reduction is likely to close.
 - A review of the types of **additional action, beyond the measures included in the LTP4, that could contribute to closing the remainder of the emissions gap**.
- **Section 4** provides a concluding summary.

The report is supported by three Annexes:

- **Annex A** provides a summary flow chart from the draft Department for Transport LTP Quantifiable Carbon Reduction guidance.
- **Annex B** provides more detail on the estimation of baseline transport emissions in Wiltshire.
- **Annex C** provides more detail on the assumptions informing the estimate of the carbon reductions supported by the LTP4 measures.

2. Climate change and net zero challenge

2.1. Climate emergency and international and national response

2.1.1. Overview

It is widely agreed that climate change due to global warming caused by greenhouse gases (GHG) poses an unprecedented threat globally. Action is required across all dimensions of society to reduce GHG emissions to mitigate the levels of warming and climate change projected, to limit the significant international environmental, social and economic impacts of the projected change. The scale of the challenge was communicated by the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report, which states that 1.5°C of warming (from pre-industrial times) is now unavoidable, but that strong action can still limit climate change and, with radical action, temperatures could stabilise in 20 to 30 years.¹

On a global level, 2023 was the hottest year on record. The UK is also experiencing rising temperatures and, according to the UK Government, between 2012 and 2021 the UK was on average 1°C warmer than the 1961 to 1990 average. All 10 of the warmest years in the UK have occurred since 2003, with 2022 being the UK's hottest year on record.

Global temperature rises are likely to have significant impacts in the UK. For instance, according to the Climate Change Committee's (CCC) 2021 risk assessment report², it is expected that flooding risk will increase considerably in future. Average winter precipitation will increase, both in terms of the intensity of the rainfall, and in terms of the number of wet days. Summers are expected to get drier, but the intensity of summer precipitation (when it does occur) will increase. More properties will face the risk of flooding, and areas already at risk will face more frequent flooding. Current flood defences will be subject to additional pressure which increases risk for further flooding events.

In response to growing awareness of the Climate Emergency, in June 2019 the UK Government passed legislation committing to achieving net zero GHG emissions by 2050. Legal commitments have also been made to carbon budgets which set an upper limit to cumulative national GHG emissions over five-year periods.

The budgets currently cover the period to 2037 and reflect the fact that it is cumulative emissions rather than emissions levels in any one year that are the key driver of climate change. GHG emissions stay in the atmosphere for decades causing warming once released and therefore decarbonisation pathways indicate that rapid reductions in GHG emissions to limit cumulative emissions are needed to limit climate change, rather than late 'just-in-time' action to meet the 2050 target.

The UK's national commitments were followed by decarbonisation routemaps for different sectors of the economy which were described in the previous Government's 'Build Back Greener Strategy'³, published in 2021.

¹ Anthesis (2022) Wiltshire Carbon Emissions Baselines and Reduction Pathways

² CCC (2021) Independent Assessment of UK Climate Risk. Available at: [Independent Assessment of UK Climate Risk - Climate Change Committee \(theccc.org.uk\)](https://www.thecc.org.uk/independent-assessment-of-uk-climate-risk)

³HM Government (2021) Net Zero Strategy: Build Back Greener: Available at: <https://www.gov.uk/government/publications/net-zero-strategy>

Summary of global and UK commitments to reduce greenhouse gas emissions¹



The Paris Agreement set the international target to limit global temperature rise to well below 2°C with the aim of limiting the rise to 1.5°C above pre-industrial levels. The IPCC's follow up report stated that this requires a global reduction in GHG emissions of 45% by 2030. Governments have strengthened their commitments at subsequent Conference of Party (COP) meetings for the agreement.



The Climate Change Act 2008 introduced a legally binding target for the UK to reduce GHG emissions by 80% by 2050 relative to 1990. In June 2019, the target was updated to reaching net zero by 2050. In addition the UK Government have committed to six five year carbon budgets. The most recent, sixth, carbon budget (to 2037), was agreed in June 2021 and involves reducing all sector emissions by 78% by 2035 compared to 1990 levels.

2.1.2. UK transport sector

2.1.2.1. Transport decarbonisation challenge

The DfT's Transport Decarbonisation Plan (TDP)⁴ was the transport sector's routemap (published in July 2021). It sets out the steps that Government, local government, businesses and society need to take to deliver the significant emissions reduction needed across all transport modes to contribute to meeting decarbonisation pathways and the carbon budgets and achieving net zero carbon emissions across the transport sector by 2050.

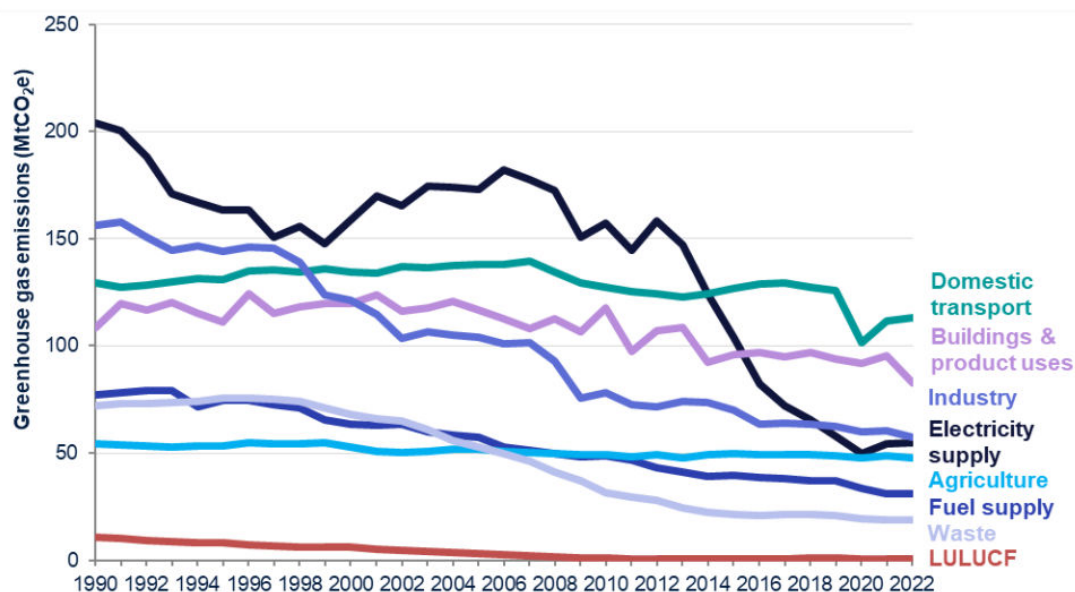
The transport sector has an important role to play in meeting national decarbonisation targets as it accounted for 28% of UK domestic greenhouse gas emissions in 2022 and has produced more emissions than any other UK sector each year since 2016⁵. As shown in Figure 2-1, transport sector emissions have remained consistently high since the 1990s (apart from a drop during the COVID-19 pandemic) whilst emissions from other sectors have generally decreased over the same timeframe.

The consistently high levels of emissions from the transport sector have been caused by growing population, a growing economy, and increased propensity to travel. Whilst vehicle efficiency has improved considerably over this timeframe, this has been largely offset by a sustained move by drivers to choose larger vehicles, particularly Sports Utility Vehicles (SUVs).

⁴ DfT (2021) Decarbonising Transport: a better, greener Britain. Available at: <https://www.gov.uk/government/publications/transport-decarbonisation-plan>

⁵ DESNZ (2024) Final UK greenhouse gas national statistics, 1990 to 2022. Available at: [Final UK greenhouse gas emissions national statistics: 1990 to 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2022)

Figure 2-1 – Territorial UK greenhouse gas emissions by sector, 1990-2022 (MtCO₂e)



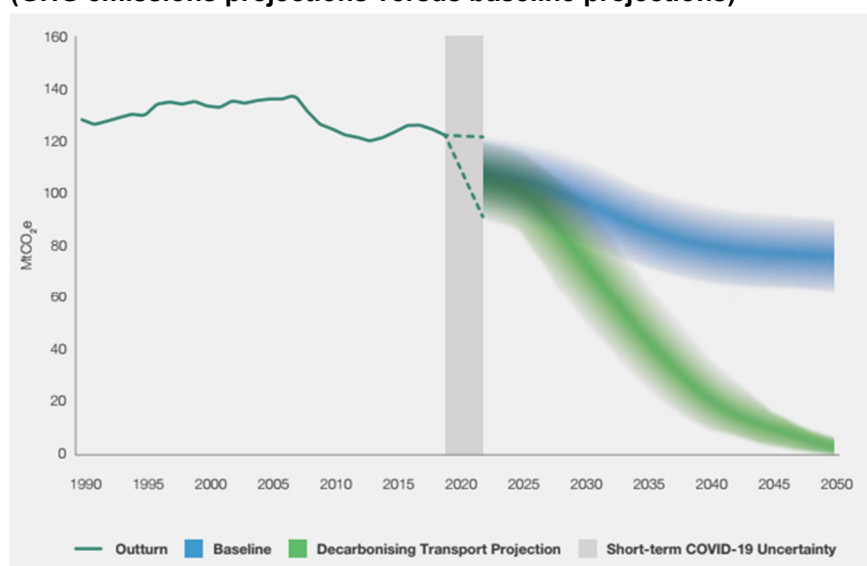
Source: Table 1.2, Final UK greenhouse gas emissions national statistics 1990-2022 Excel data tables

Note: LULUCF is land use, land use change and forestry.

Source: UK greenhouse gas emissions national statistics, 2022⁶

The need for rapid reduction in transport sector emissions was identified in the Climate Change Committee's (CCC) Sixth Carbon Budget report⁷, the TDP⁴ and the Government's subsequent Net Zero Strategy⁸. Figure 2-2 shows the TDP's pathway for the required reduction in emissions from the transport system.

Figure 2-2 – DfT Transport Decarbonisation Plan domestic transport decarbonisation pathway (GHG emissions projections versus baseline projections)



Source: DfT Transport Decarbonisation Plan:

<https://assets.publishing.service.gov.uk/media/610d63ffe90e0706d92fa282/decarbonising-transport-a-better-greener-britain.pdf>

⁶ ibid

⁷ CCC (2020) Sixth Carbon Budget Report. Available at: [Sixth Carbon Budget - Climate Change Committee \(thecc.org.uk\)](https://www.thecc.org.uk)

⁸ HM Government (2021) Net Zero Strategy. Available at: [Net Zero Strategy: Build Back Greener - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

2.1.2.2. DfT draft LTP and QCR Guidance

The TDP recognises that diverse action at a range of scales will be required to achieve the pace and scale of transport decarbonisation required in the transport sector. The importance of local action is highlighted, and the plan includes a commitment to:

‘...drive decarbonisation and transport improvements at a local level by making quantifiable carbon reductions a fundamental part of local transport planning and funding.’

The TDP highlights that as LTPs are statutory documents that set out improvements to transport networks they need to show how local authorities will deliver ambitious carbon reductions. To support this process, the DfT committed to providing guidance to local authorities for producing LTPs that contain measures that will result in quantifiable carbon reductions.

Draft content of the LTP guidance was shared with local authorities. It was accompanied by Quantifiable Carbon Reduction (QCR) guidance which included a flow chart (shown in Annex A), setting out four steps to be followed in developing a LTP that delivers a quantifiable carbon reduction, involving:

- Estimating current and projected future transport emissions, including identifying the main sources of emissions.
- Establishing a local transport decarbonisation pathway to understand the emissions gap between projected emissions and the pathway.
- Considering carbon in the generation and appraisal of intervention and policy options for an LTP (using a light touch approach and considering whole-life carbon).
- Estimating the carbon impact of the proposed LTP measures.

The development and release of the guidance was paused and no final guidance has been published. It remains unclear whether the guidance will be launched. However, the draft documents available provide a useful framework for decarbonising transport and have informed the development of Wiltshire’s LTP4, as set out in this document.

2.2. Wiltshire’s decarbonisation challenge

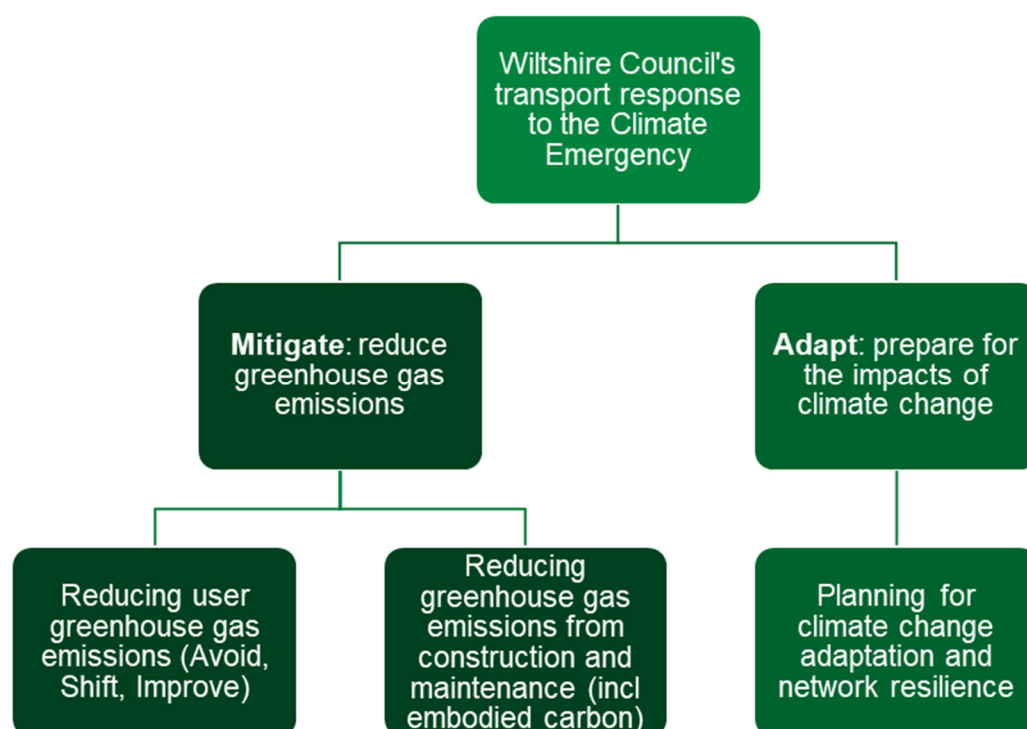
2.2.1. Wiltshire’s response to the climate emergency

Following on from the announcement by the UK Government accelerating the path to net zero carbon, a number of councils recognised the need to acknowledge a Climate Emergency and commit to decarbonisation targets, including achieving net zero carbon emissions by 2050. Wiltshire Council acknowledged a Climate Emergency in February 2019 and has committed to making the council a carbon neutral organisation by 2030 and identified the ambition to seek to make Wiltshire a carbon neutral county by 2030. The LTP4 and several other council plans and policies are relevant to contributing towards achieving these commitments.

As shown in Figure 2-3, Wiltshire Council has identified two parallel elements to its transport response to the Climate Emergency: reducing greenhouse gas emissions to limit climate change (**mitigate**) and planning for the likely impacts of climate change (**adapt**).

This Appendix focuses on the mitigate element and the need to reduce carbon emissions to limit climate change. However, the importance of the adapt element is well recognised and reflected as part of the theme of sustainability that underpins LTP4.

Figure 2-3 – Wiltshire Council's transport response to the Climate Emergency



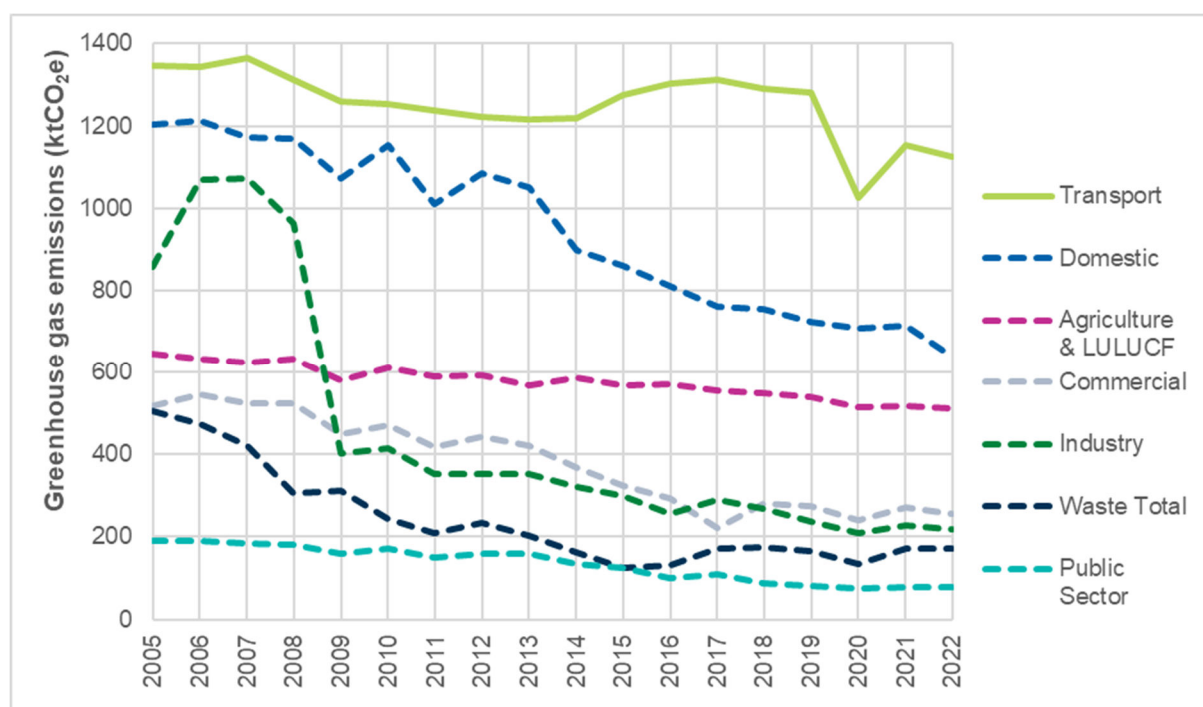
Source: Core LTP4 Strategy

2.2.2. Current transport emissions in Wiltshire

Data from the Department for Energy Security and Net Zero (DESNZ) summarised in Figure 2-4 shows that the transport sector has generated more greenhouse gas emissions than any other sector in Wiltshire since data collection started in 2005. Similar to the national picture, transport emissions have stayed consistently high (apart from during the COVID-19 pandemic) whilst emissions from other sectors have generally decreased over the same time period.

In the most recent year for which data is available, 2022, the transport sector contributed 38% of the 3000 kilotonnes of carbon dioxide equivalent (kt CO₂e) of greenhouse gas emissions that were generated from all sectors in Wiltshire. This is markedly higher than the equivalent proportion of transport accounting for 28% of national greenhouse gas emissions (as set out in Section 2.1.2.1), highlighting the importance of decarbonising the transport sector in Wiltshire.

Figure 2-4 – Greenhouse gas emissions by sector in Wiltshire ktCO₂e p.a.



Source: DESNZ, 2024, UK local authority and regional greenhouse gas emissions statistics⁹

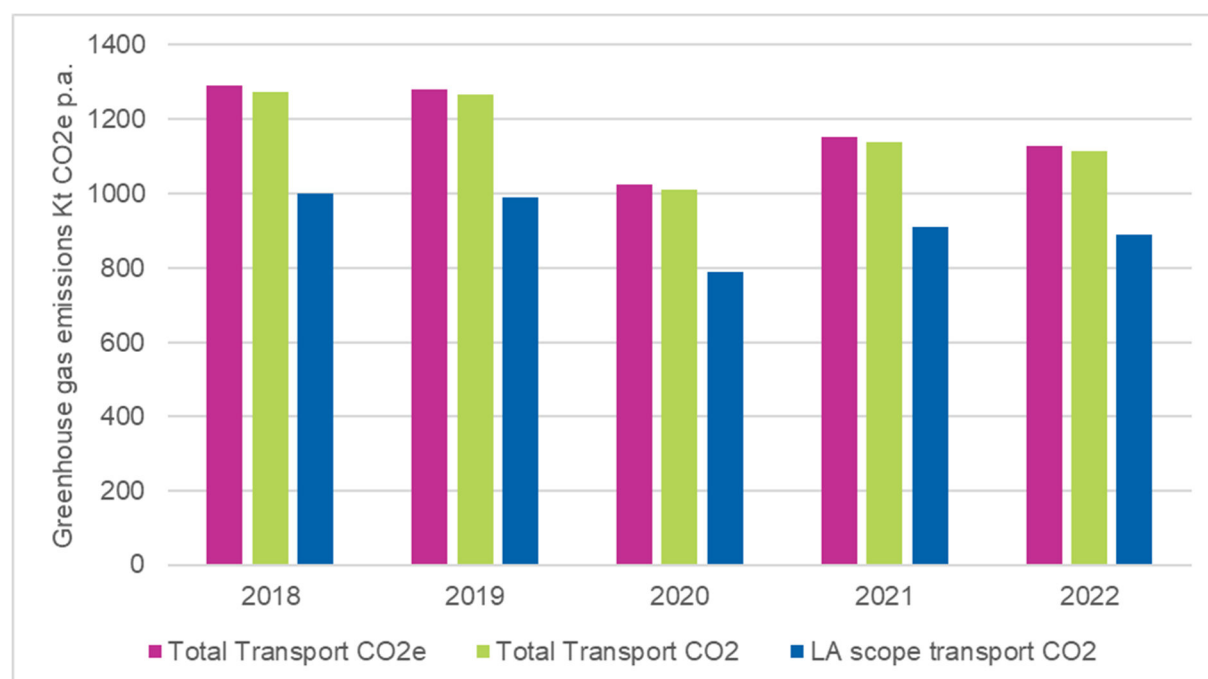
The DESNZ dataset also provides an indication of carbon dioxide emissions¹⁰ that are considered to be within scope of local authority influence. For transport this excludes emissions in the authority boundaries that are associated with rail and motorway use. For other sectors, it excludes sources such as large industrial sites.

Figure 2-5 presents the data for the last five years of available data showing total transport greenhouse gas emissions in Wiltshire, total carbon dioxide emissions in the county and carbon dioxide emissions identified by DESNZ as being within scope for local authority influence. The figures highlight that carbon dioxide accounts for 99% of transport greenhouse gas emissions, and that emissions considered to be within scope of local influence (i.e. primarily emissions from traffic on A roads and minor roads) account for nearly 80% of total transport emissions. Transport accounted for 41% of total all sector emissions considered within scope for local authority influence in Wiltshire in 2022.

⁹ DESNZ (2024) UK local authority and regional greenhouse gas emissions statistics. Available at: [UK local authority and regional greenhouse gas emissions statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-statistics)

¹⁰ The dataset covers carbon dioxide emissions only, no other greenhouse gases.

Figure 2-5 – Transport sector greenhouse gas and carbon dioxide emissions in Wiltshire – ktCO₂e/ktCO₂ p.a.



Source: DESNZ UK local authority and regional greenhouse gas emissions statistics¹¹

2.2.3. The source of Wiltshire's transport emissions

An understanding of the main sources of transport emissions within Wiltshire provides a useful basis for identifying the types of LTP4 measures likely to be required to reduce transport emissions.

The following sections highlight some key points about the main sources of emissions in terms of:

- Vehicle type
- Road type
- Trip type and
- Population type

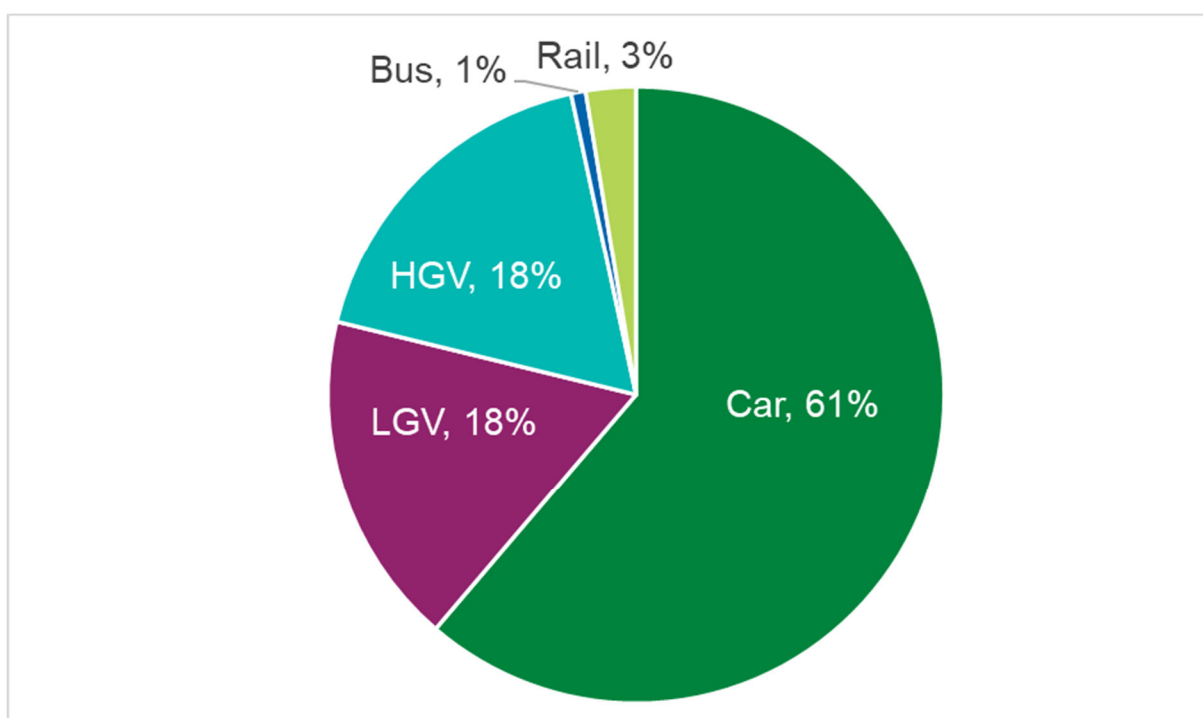
¹¹ DESNZ (2024) UK local authority and regional greenhouse gas emissions statistics. Available at: [UK local authority and regional greenhouse gas emissions statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-statistics)

Emissions by vehicle type and road type

Current and future transport user emissions in Wiltshire have been estimated, in line with QCR Step 1, using outputs from the Wiltshire Traffic Model and a spreadsheet carbon model (as described further in Section 2.2.4 and Annex B).

Figure 2-6 summarises analysis from the carbon model indicating that cars accounted for approximately 61% of Wiltshire's transport emissions in the base year of 2018, followed by HGVs accounting for 18%, LGVs 18%, rail 3% and buses 1%. These figures are consistent with those for the UK in 2019 where cars accounted for 61% of total land transport emissions, HGVs for 17%, LGVs for 18%, rail for 3% by rail and buses for 2%¹².

Figure 2-6 – Transport CO₂e emissions within Wiltshire by vehicle type, 2018



Source: Carbon modelling for LTP4 using Wiltshire Traffic Model

The traffic model analysis also indicates that just under 20% of road emissions are generated on motorway travel and approximately 45% on travel on A roads and 35% on travel on B roads and more minor roads¹³.

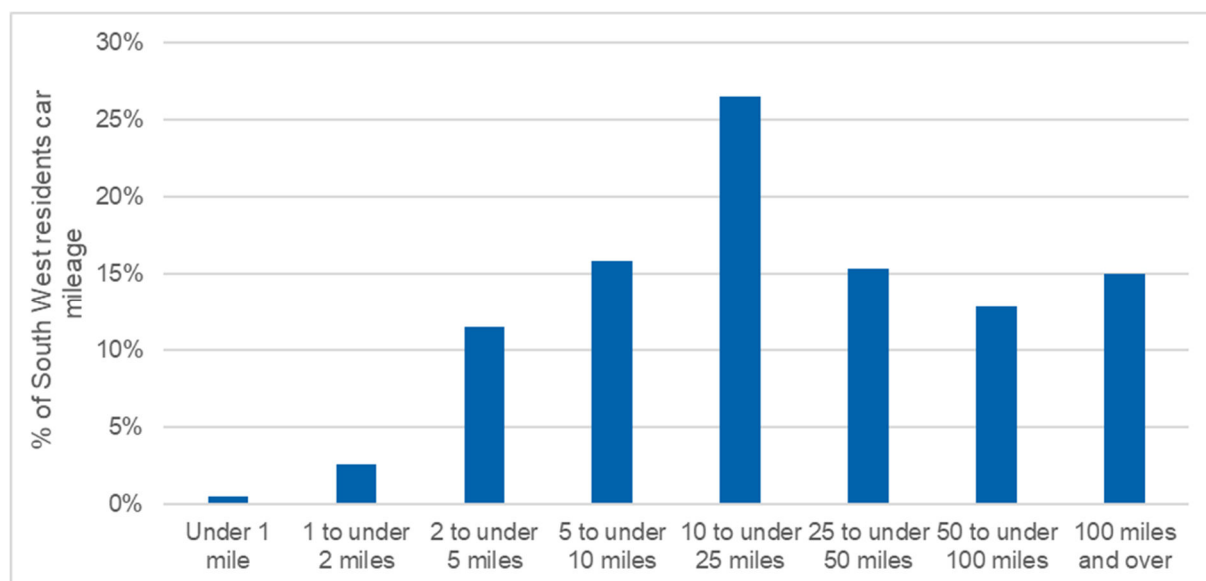
¹² As quoted in the Transport Decarbonisation Plan: DfT (2021) Decarbonising transport: A better, greener Britain. Available at: [Transport decarbonisation plan - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/92422/transport-decarbonisation-plan.pdf)

¹³ The DESNZ local authority greenhouse data also provides a disaggregation of emissions by road type and shows the same pattern. DESNZ (2024) UK local authority and regional greenhouse gas emissions statistics. Available at: [UK local authority and regional greenhouse gas emissions statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/92422/transport-decarbonisation-plan.pdf)

Emissions by trip type

Trip length is an important influence on carbon emissions with long trips making a significant contribution to emissions despite accounting for a relatively low proportion of trip numbers. Recent National Travel Survey data¹⁴ summarised in Figure 2-7 indicates that trips under 5 miles long only accounted for 15% of car vehicle miles driven by residents in the South West region (and therefore emissions generated by cars¹⁵), despite accounting for the majority of car trips. Trips over 10 miles long accounted for 70% of car vehicle miles driven by residents (and therefore emissions generated) and trips over 25 miles for nearly 45% of vehicle miles.

Figure 2-7 – Car/van mileage driven by South West region residents by trip length, 2019



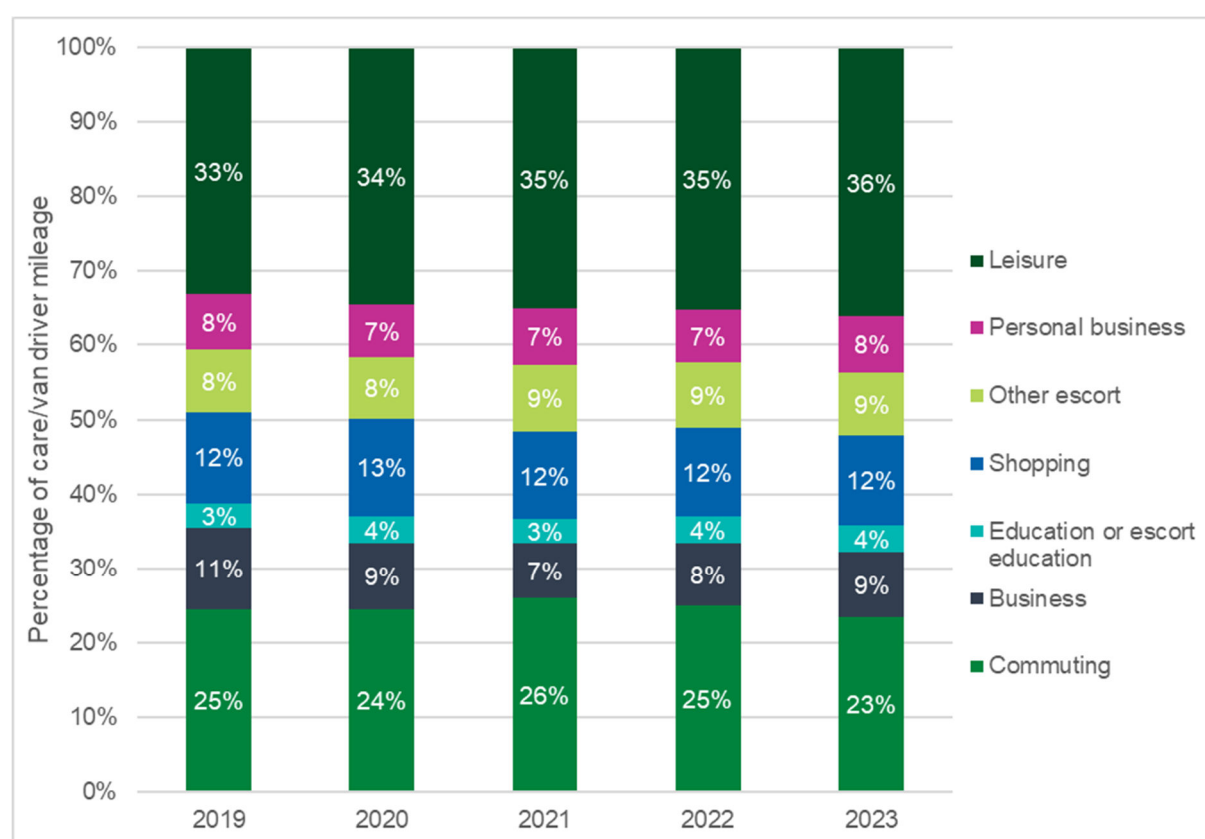
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¹⁴ NTS (2024) Table NTSQ01008: Average miles travelled by mode, region and Rural-Urban Classification of residence and trip length: England, 2018/2019. Available at: [Ad-hoc National Travel Survey analysis - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/ad-hoc-national-travel-survey-analysis)

¹⁵ This analysis effectively assumes a standard average emissions rate per vehicle mile on all trips. In practice, emissions rates will vary according to the size of vehicle typically used on different journey types and with higher emissions for slower, more congested travel and high-speed journeys. These variations will influence all trip purposes and lengths to some extent, and they are unlikely to change the pattern shown significantly.

It is also useful to understand the extent to which trips for different purposes contribute to total emissions. National Travel Survey data on national average car/van mileage by journey purpose¹⁶ shows that, although total mileage has varied between years over the last five years as a result of the travel impacts of COVID-19, the split between purposes has stayed broadly consistent. In 2019 leisure trips (including entertainment, holiday and visiting friends and family) accounted for approximately 33% of car travel, commuting trips for 25%, shopping for 12%, business for 11% and personal business and other escort each for approximately 8%. By 2023, the pattern is still similar, with a slight reduction in the proportion of travel for commuting and business trips and increase in the proportion for leisure trips.

Figure 2-8 – Car/van mileage driven by journey purpose



¹⁶ NTS (2024) Table NTS0409b: Average distance travelled by purpose and main mode (miles per person per year): England, Available at: [National Travel Survey - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-travel-survey). National data was used as the NTS reports do not provide the equivalent data at more disaggregate levels

Emissions by population category

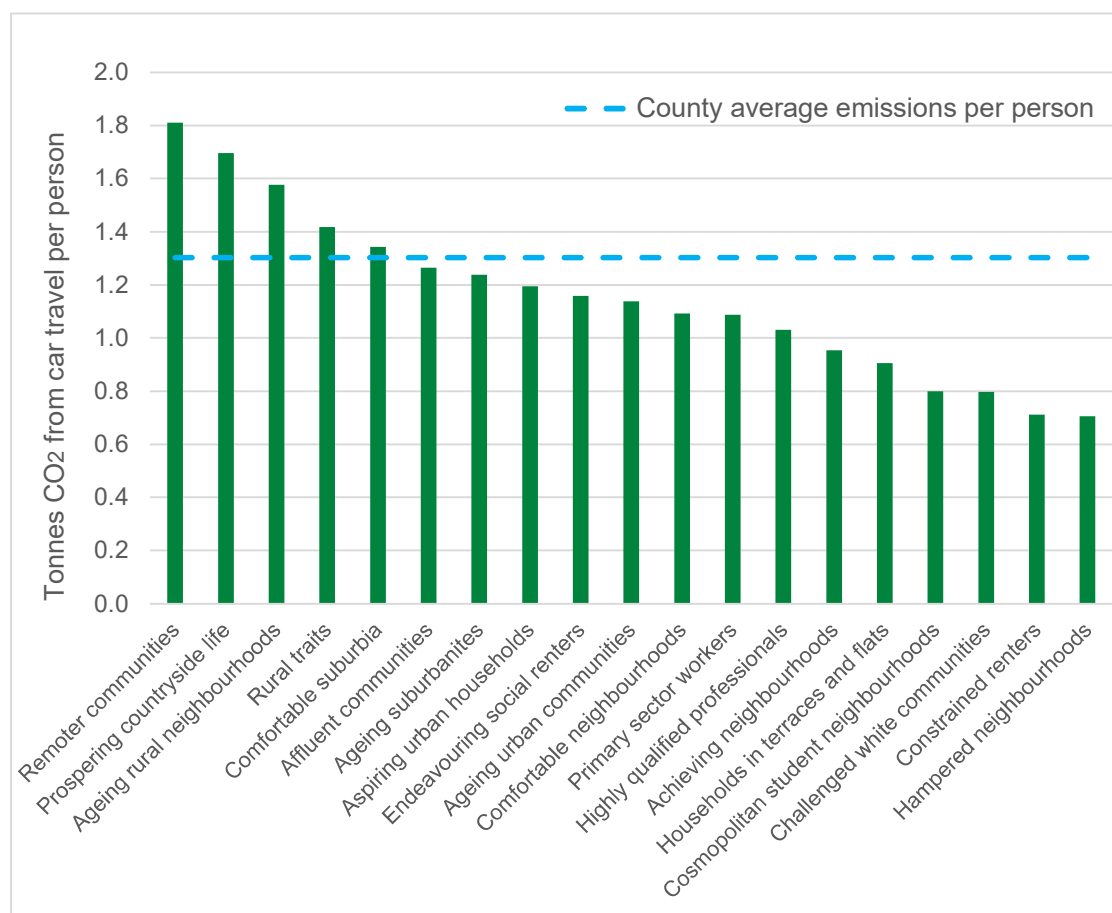
In developing decarbonisation measures, it is also important to understand how carbon emissions vary by location, reflecting the characteristics of the place and its population. The Centre for Research into Energy Demand Solutions (CREDS) place-based carbon tool¹⁷ provides estimated emissions from car driving by ONS population segment in Wiltshire in 2018. The data highlights that emissions per resident tend to be increased by living in more remote, rural locations and where residents have above average incomes. In contrast, those living in towns and those with lower incomes tend to travel less by car.

Figure 2-9 illustrates these contrasts, summarising the average annual emissions from car travel generated per resident in each of the 20 ONS population segments identified within Wiltshire, using the segment labels used by CREDS.

The bar heights show the average annual emissions from car travel generated per person in each segment and the blue dotted line shows the average across the total county population. The variation in emissions between the most emitting of the population segments and the least emitting is significant. Annual emissions generated by car use by residents in the highest emitting segments, Remoter Communities and Prospering Country Life, are two to two and a half times the emissions generated by residents in the least emitting segments, Constrained renters and Hampered neighbourhoods, and over 30% greater than the county average emissions per person.

¹⁷ CREDS Place-based carbon calculator). [*Source: Morgan, Malcolm, Anable, Jillian, & Lucas, Karen. \(2021\). A place-based carbon calculator for England. Presented at the 29th Annual GIS Research UK Conference \(GISRUUK\), Cardiff, Wales, UK \(Online\): Zenodo. A place-based carbon calculator for England | Zenodo*](#)

Figure 2-9 – Average CO₂e emissions from car travel p.a. per person for population segments, Wiltshire, 2019. (Source: CREDS carbon tool)¹⁸



2.2.4. The scale of Wiltshire's transport decarbonisation challenge

In addition to understanding the source of current emissions, it is important to understand the projected scale of the future transport emissions and the 'emissions gap' that needs to be closed, to help understand the type of transport decarbonisation measures needed. The gap indicates the difference between projected baseline emissions by year and the decarbonisation pathway that annual emissions would need to follow in order to meet decarbonisation commitments.

There is uncertainty over the scale of the emissions gap because of uncertainty over a number of key variables (see Box 2). However, an estimate can be made on the basis of assumptions about the key variables. Figure 2-10 illustrates the scale of the projected emissions gap in Wiltshire in 2030 and 2035, estimated on the basis of assuming:

- The midpoint of the TDP range for the decarbonisation pathway (the green line on the graph). Following a carbon workshop with Wiltshire Council officers, this was selected as the pathway to adopt for LTP4 as it aligns with draft DfT LTP QCR guidance on the most appropriate approach for Step 2 for authorities without a locally defined pathway. (Further detail on alternative decarbonisation pathways is provided in Annex B section 4.3.B.6.1)
- Three different projections of future baseline emissions (shown as blue lines) developed on the basis of output from the Wiltshire Traffic model and best practice emissions

¹⁸ [*Ibid.*](#)

factors, as outlined in Box 3 at the end of this section and in more detail in Annex B. These projections:

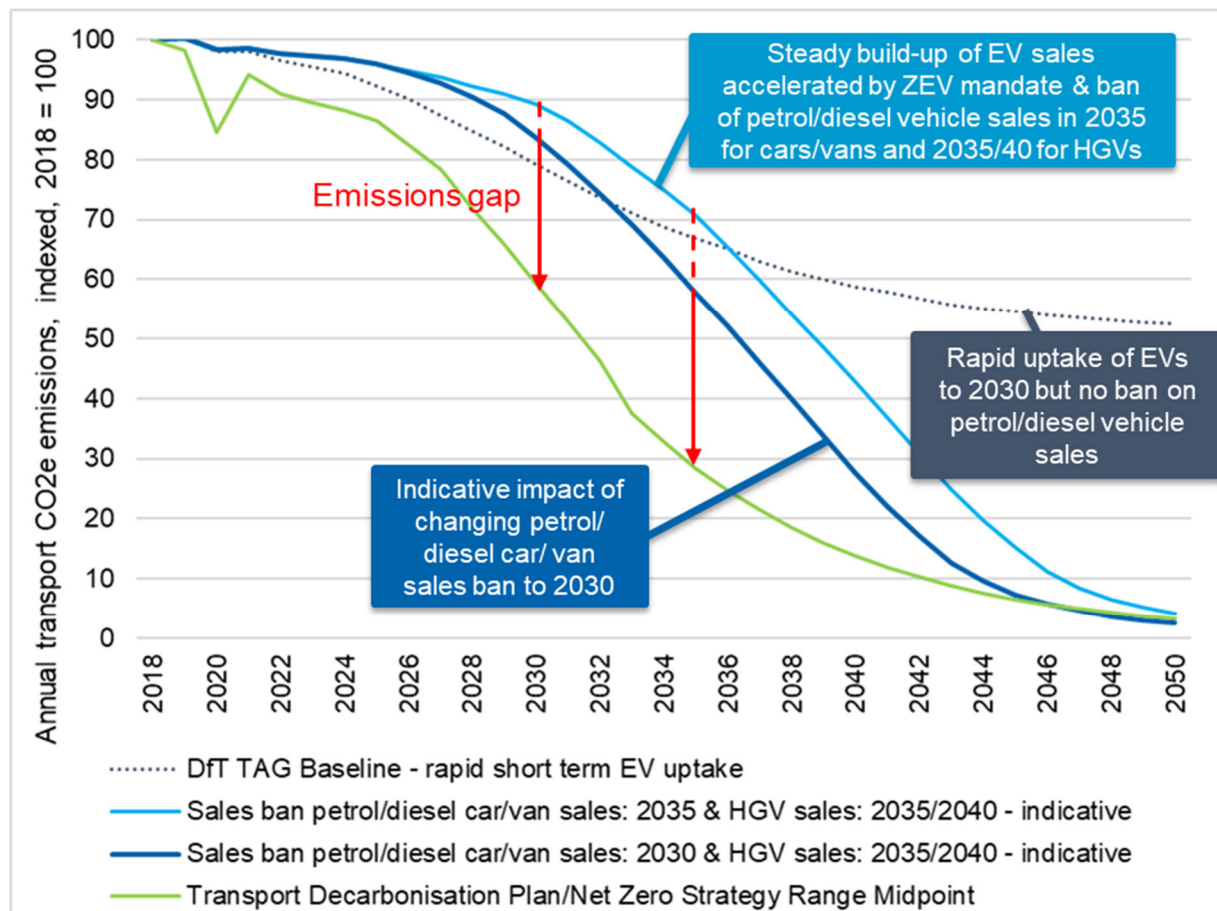
- Were all based on traffic growth from the Reference Case scenario in the Wiltshire Traffic model. These traffic model forecasts were developed before COVID-19, and this approach effectively assumes that the trend for car traffic to grow at an above average rate to return to pre-COVID-19 projections continues (see Box 2).
- Used three different scenarios of electric vehicle (EV) and zero emission vehicle uptake:
 - Rapid uptake of EVs to 2030 but no ban on petrol/diesel vehicle sales (in line with DfT's Transport Analysis Guidance assumptions).
 - Steady build-up of EV sales, accelerated by the zero emissions vehicle mandate and a 2035 sales ban on petrol/diesel cars and 2035/2040 sales ban on diesel HGVs¹⁹ (reflecting current government policy).
 - Steady build-up of EV sales, accelerated by the zero emissions vehicle mandate and a 2030 petrol/diesel car/van sales ban and 2035/2040 sales ban on diesel HGVs (reflecting previous government policy which may be reinstated by the new government).

Box 2: Key areas of uncertainty influencing the scale of the emissions gap include:

- The appropriate decarbonisation pathway to follow – different bodies identify different relevant pathways on the basis of different views of the carbon budgets allocated to the UK, Wiltshire and/or the transport sector. Annex B provides more details on a number of different potential pathways.
- Traffic growth rates, including recovery from the reduction in car travel caused during the COVID-19 pandemic. Car traffic in Wiltshire remained approximately 8% lower than in 2019 in 2023 but had grown rapidly from 2022 (according to DfT Local Authority traffic statistics, table TRA8905). If similar rates of growth continue, traffic will be back to the levels projected before COVID-19, including growth, by about 2028.
- Rate of fleet change through time, particularly the uptake of electric vehicles and other zero emissions vehicles

¹⁹ The government initially announced a 2030 date for the ban on sales of petrol and diesel cars and vans in November 2020 and a 2035 ban for HGVs under 26 tonnes and 2040 ban for HGVs over 26 tonnes in November 2021. The car/van sales ban date was delayed until 2035 in September 2023 by the previous government and has not yet been changed back to 2030 by the new government, although the possibility has been raised. HGV sales ban dates have remained unchanged

Figure 2-10 – Wiltshire’s estimated transport emissions gap



The red arrows on the graph indicate the emissions gap between the blue emissions projections and green decarbonisation pathway. The comparison indicates that closing the gap in 2030 would require approximately a further 30% reduction in transport emissions from the projected baselines. This equates to approximately a 35% reduction from current emissions levels. In 2035, closing the gap would require approximately a further 55% reduction in emissions relative to projected baselines (equivalent to approximately a 70% reduction from current emissions levels).

As outlined in Section 2.1.2.1, closing the emissions gap is important as it is cumulative emissions that drive climate change. Each year in which emissions remain above pathway levels adds further to cumulative emissions. This then makes it harder for emissions to get back to the levels required to meet climate change commitments. If decarbonisation pathways are not met globally and cumulative emissions continue to rise, temperatures will continue to rise, increasing the wide-ranging risks associated with climate change, as summarised in Section 2.1.1.

The gaps identified in Figure 2-10 are substantial and are consistent with the scale of gaps seen for other authorities and nationally. They clearly highlight the scale and pace of transport emissions reduction that would be required to meet the decarbonisation pathway. The scale of change needed is made more challenging by the fact that the baselines used to estimate the gaps already assume significant uptake of EVs and zero emissions vehicles in response to national action.

This decarbonisation challenge sets the context for the need to fully consider carbon impacts in the development of LTP4.

Box 3: Estimate of baseline carbon emissions projections

A carbon spreadsheet model was developed to estimate projected surface transport emissions within Wiltshire's boundary (in line with Step 2 in the DfT's draft QCR guidance). The estimate was based primarily on:

- Detailed model data from the SATURN Wiltshire Traffic Model, providing volume and type of traffic by vehicle category (cars, vans, goods vehicles, buses) on the roads in the modelled years of 2018 and 2036
- An estimate of traffic levels on minor roads not captured in the traffic model (using DfT traffic counts and GIS road length data)
- The composition of the fleet for each vehicle category (in terms of the proportions of vehicles of different sizes, efficiency, and power source, testing a number of different scenarios using data from the DfT's Transport Analysis Guidance and other sources, explained further in Annex B).
- Emissions factors (grammes of carbon emitted per vehicle kilometre) by vehicle type and speed band.

Emissions estimates represent well to wheel carbon dioxide equivalent (CO₂e) emissions.

A year-by-year trajectory of emissions through time was derived by supplementing the modelled data for 2018 and 2036 with estimates of traffic for the additional years at 4 to 5 yearly intervals to 2050. These estimates were derived through interpolation and extrapolation of the data for the two modelled years, informed by the DfT's National Road Traffic Projections 2022 which provides Reference Scenario traffic forecasts at 5-year intervals to 2050 for the South-West by road type and vehicle type.

The estimated traffic forecasts for these years were combined with relevant fleet composition and emissions factors to provide emissions estimates in each year to inform the trajectory.

Further detail on the approach to calculating emissions is provided in Annex B.

3. Routemap for transport decarbonisation

3.1. Overview

This section outlines the ways in which transport emissions reductions can be achieved to help address the decarbonisation challenge highlighted in the previous section and identifies the role of the LTP4 in supporting emissions reduction.

The following sections set out:

- **Routes to transport decarbonisation** – setting context by summarising the key drivers of transport carbon emissions and their implications for the types of measure required to reduce emissions, along with the need to account for whole lifecycle carbon implications of any transport system changes proposed in the LTP4.
- **The role of carbon considerations in developing LTP4** - setting out the role of carbon considerations in the development of the Core LTP4 Strategy and sub-strategies, through including carbon in the LTP4 vision and objectives and using the need for decarbonisation to structure the four policy areas identified.
- **The proposed LTP4 measures** within each policy area, illustrating the way in which they support carbon reduction as well as delivering wider benefits.
- An estimate of the scale of the **potential emissions reduction that could be supported by the proposed LTP4 measures**, if implemented in combination with action by individuals, organisations and other sectors; and the proportion of the emissions gap between projected emissions and the identified decarbonisation pathway that the reduction is likely to close.
- A review of the types of **additional action, beyond the measures included in the LTP4, that are likely to be needed to close the remainder of the emissions gap.**

3.2. Routes to transport decarbonisation

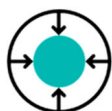
3.2.1. Transport user emissions

Transport user carbon emissions are the direct result of two influences:

- **The number of miles travelled** by each vehicle type
- **The average emissions produced per mile** by each vehicle type

This means that, at the simplest level, any measures to reduce user emissions and close the emissions gap identified in Section 2 need to:

- **Reduce the number of vehicle miles travelled** by:



Avoiding unnecessary travel by giving people and businesses the choice to make fewer and shorter journeys.



Shifting travel from use of road vehicles by improving the relative attractiveness of options for using more sustainable modes.

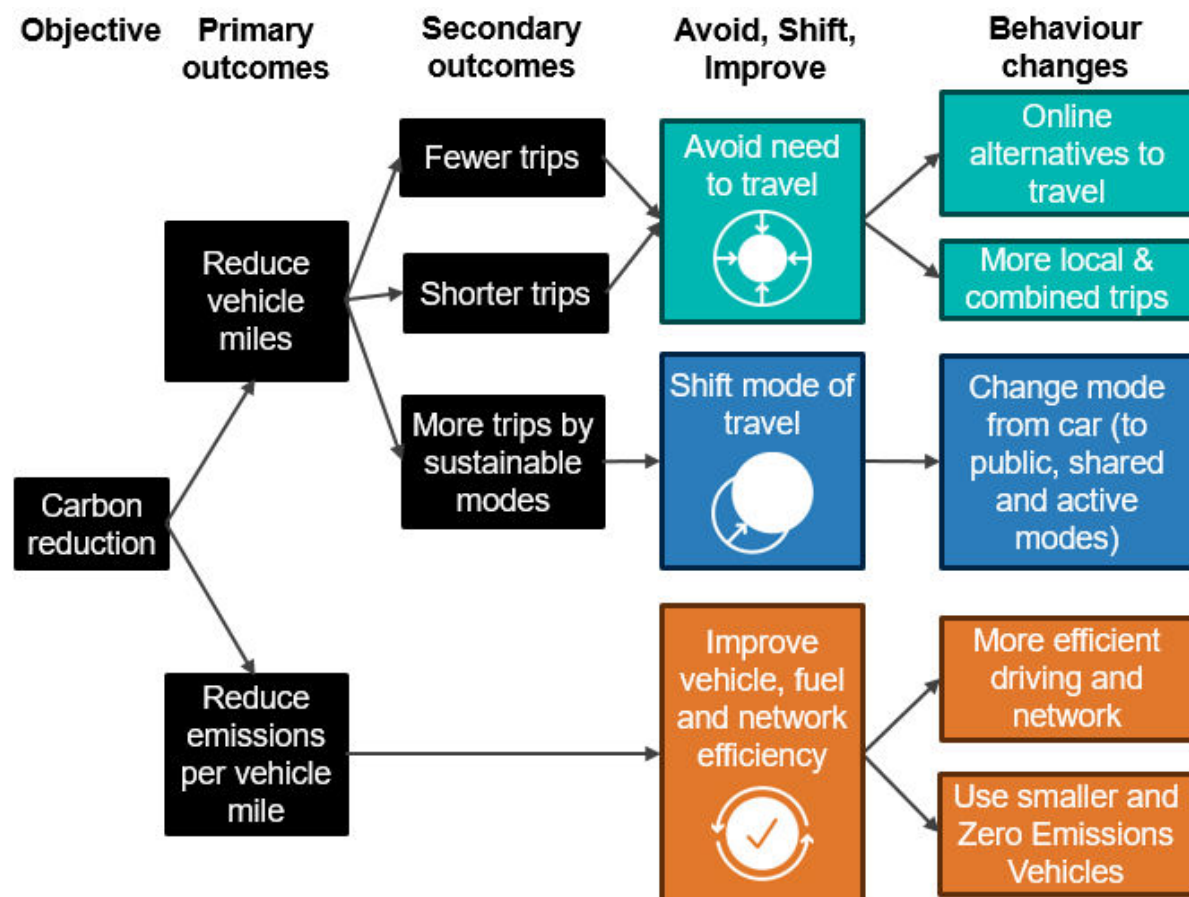
- And/or **Reduce average emissions per vehicle mile** by:



Improving vehicle fuel and network efficiency through increasing: the efficiency of driving style and network conditions, the use of smaller vehicles and the rate of uptake of low and zero emission vehicles, mainly electric vehicles (EVs).

Figure 3-1 summarises the five main types of travel behaviour change required to deliver emissions reductions, focussing on passenger transport emissions and grouped in terms of Avoid, Shift and Improve.

Figure 3-1 – Behaviour changes needed to reduce passenger transport user emissions



Closing Wiltshire's transport sector emissions gap will require significant change in each of these areas of behaviour for passenger travel, alongside equivalent changes in freight travel choices.

There is often a focus on Improve measures and particularly EV uptake as offering the solution to closing the emissions gap. However, it is important to recognise that, although EV uptake will have an important role in transport decarbonisation, it cannot be the single route to closing the gap.

This is partly for practical reasons. The uptake required cannot be achieved through purchase of new vehicles alone, as the number of new cars bought each year typically only equates to approximately 6% of the fleet. This means that even if all new cars bought between 2025 and 2030 were EVs they would only account to about 35% of the fleet by

2030. There are also practical limits on the number of vehicles that will be built and available for purchase over that timeframe.

EVs also bring their own challenges including embodied carbon in the production of EVs (which equates to emissions from about 4 to 5 years of petrol mileage for each vehicle); continued traffic congestion and particulate (air) pollution (from tyres, brakes and road wear) as well as high purchase costs (with social exclusion implications).

The practical issues and limits to the potential rate of EV uptake, combined with these wider challenges, highlight that Improve measures cannot be the sole route to closing the emissions gap. A balance of measures from across Avoid, Shift and Improve would be required to deliver the pace and scale of decarbonisation needed to close the emissions gap and follow the decarbonisation pathway.

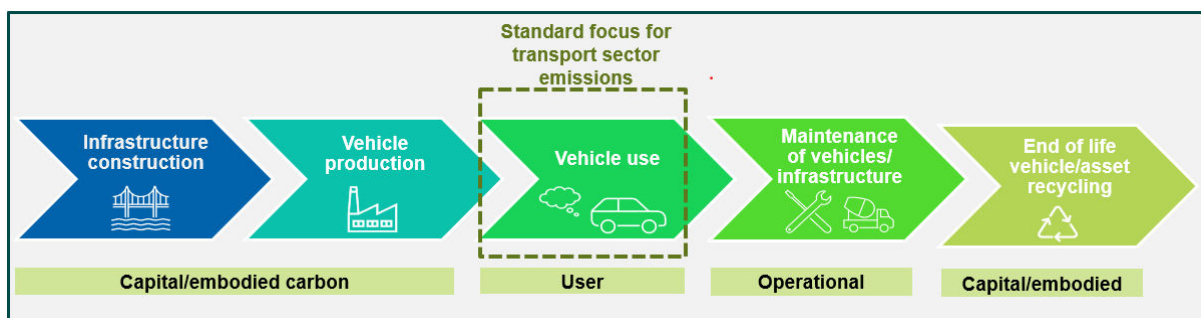
3.2.2. Whole lifecycle emissions of the transport system

The transport sector emissions included in the emissions statistics and decarbonisation pathways summarised in Section 2 relate to emissions produced by vehicles.

In developing measures to reduce transport user emissions, it is important to remember that decisions that influence the transport system have whole lifecycle carbon emissions implications. Figure 3-2 summarises the transport lifecycle highlighting that, as well as influencing transport user emissions, transport decisions also have emissions impacts by influencing the carbon required to build infrastructure, equipment and vehicles ('capital or embodied carbon'), maintain them ('operational carbon') and deal with them at the end of their lives.

Although these emissions are not allocated to the transport sector, they are the result of transport decisions and it is important that decisions related to transport measures take a whole lifecycle perspective, to ensure that intended transport user emissions savings are not offset by wider lifecycle emissions implications.

Figure 3-2 – Whole lifecycle carbon emissions of the transport sector



3.3. The role of carbon considerations in developing LTP4

LTP4 has the potential to support transport decarbonisation in Wiltshire by:

- Supporting and promoting measures to reduce transport user emissions through Avoid, Shift and Improve as described above; and
- Establishing the importance of considering whole lifecycle carbon implications in transport decision making.

Recognising the importance of the decarbonisation challenge for transport, carbon considerations have informed the development of LTP4, to ensure that the measures

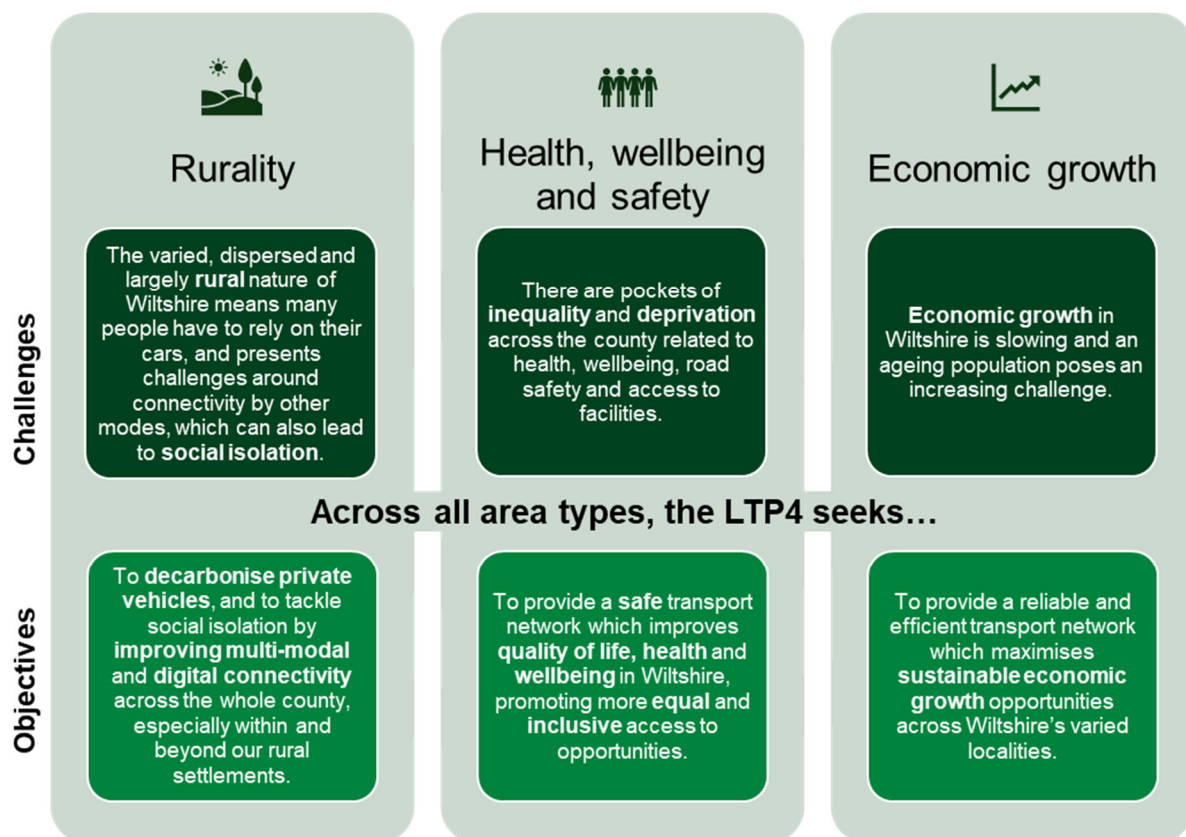
identified are aligned with the need for decarbonisation and will support wider action by individuals, organisations, other sectors and national government to decarbonise transport.

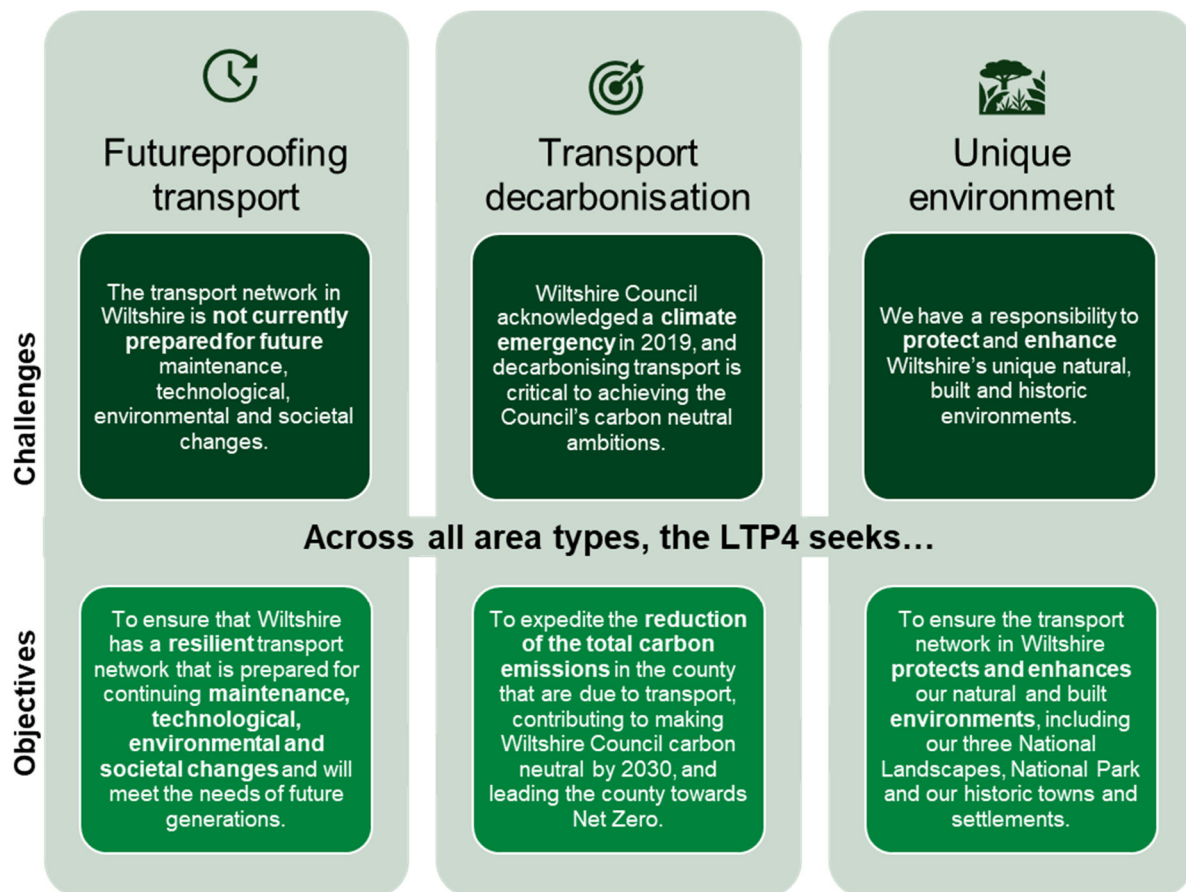
At the highest level, the importance of decarbonisation is reflected in the long-term aspiration for transport in Wiltshire to 2038 and beyond as set out in the LTP4 Vision:

A safe and connected transport system which protects the county's unique built, natural and historic environment, making this accessible for all, supports sustainable economic growth across Wiltshire's communities and contributes to a **low carbon future**.

Decarbonisation is also one of the six objectives defined to help guide the LTP4 in addressing identified challenges and defining priorities for transport in the county, as shown in Figure 3-3.

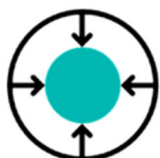
Figure 3-3 – Summary of challenges and objectives for LTP4





Consideration of decarbonisation issues has therefore informed the development of Core LTP4 Strategy and sub-strategies, based on a sound understanding of the carbon context and scale of the decarbonisation challenge (as summarised in Section 2) and an understanding of the potential scale of emissions impact of LTP4 measures, aligning with Step 3 of the draft QCR guidance. These issues have been considered alongside those associated with the other objectives, including the potential challenges of reducing car use in a county with a largely rural, dispersed population.

The need to reduce transport user carbon emissions underpins the structure of the policies and measures identified for the LTP4 which are framed around three policy areas reflecting the Avoid, Shift and Improve routes to emissions reduction, as introduced in Section 3.2.1 and summarised below. The fourth policy area of Support includes the broader policies and measures that act to support and enable action in some, or all, of the areas of Avoid, Shift and Improve.



Avoid unnecessary travel – giving people the choice to reduce the number and length of car trips needed through promoting digital connectivity; locating services, jobs and other destinations within closer reach; and combining journeys.



Shift to more sustainable modes of transport – providing better and more accessible options for travel via active travel (walking, wheeling, cycling and horse riding), shared transport, and public transport.



Improve vehicle, fuel and network efficiency – through roll out of electric vehicles and charging infrastructure, alternative fuels and technology improvements.



Support and enable delivery of the Avoid, Shift and Improve policy areas – both now and into the future.

Figure 3-4 summarises how the LTP4 vision, objectives, policy areas and policies have fitted together to ensure that decarbonisation considerations have informed the development and form of the LTP4:

- **The vision and six objectives** are at the core of the LTP4: they summarise the LTP4's purpose and ambition.
- **The four policy areas** set out the approach for achieving the LTP4 vision and objectives. Each policy area supports multiple objectives, including decarbonisation.
- Under each policy area, **several policies** have been identified which provide further detail as to how these aims will be achieved.

Figure 3-4 – LTP4 Vision, objectives, policy areas and policies



The four LTP4 policy areas focus on measures to improve transport choices and change travel behaviour and they therefore influence transport user emissions. The consideration of the whole lifecycle implications of changes to the transport system introduced through the LTP4 measures is captured by the underpinning focus on sustainability that runs throughout the LTP4 (as shown around the edge of Figure 3-4). This focus informs the design principles, as set out in the Core LTP4 Strategy, which will ensure that LTP4 delivery is underpinned by a holistic approach to sustainability.

The principles recognise the need to integrate Whole Life Carbon Management (WLCM) considerations into LTP4 and future transport programmes. This means considering both the user carbon impacts of measures (through reductions in vehicle miles or emissions per vehicle mile) and the 'carbon costs' of embodied carbon in new infrastructure, equipment and vehicles needed to unlock these benefits.

In practice, this whole lifecycle perspective is likely to lead to measures that limit the implementation of new infrastructure, instead identifying options to improve journey quality and travel choices through making better use of existing infrastructure.

This is consistent with the approach to carbon management in PAS 2080²⁰, which advocates an 'Avoid-Switch-Improve' approach to delivery of new infrastructure.

- **Avoid:** reduce the need for new infrastructure in the first place.
- **Switch:** redefine solutions to make better use of existing assets, or consider smaller-scale solutions.
- **Improve:** re-use materials in-situ or review materials choices (for example, low-carbon asphalt).

The focus on sustainability underpinning the LTP4 and its design principles also incorporate the need to adapt to climate change. This involves adapting the transport system and building in resilience to the likely impacts of climate change.

3.4. LTP4 Measures

3.4.1. Scope of influence

The LTP4 includes a wide range of measures with the potential to support transport carbon emissions reductions whilst also contributing to other LTP4 objectives. Many measures contribute to decarbonisation alongside improvements in the local environment, through reduction in traffic leading to reduction emissions of local pollutants and greenhouse gas emissions. Measures that improve wellbeing by enhancing accessibility, travel options and health through increased levels of active travel, also often have the potential to support decarbonisation by reducing vehicle mileage.

The balance of measures reflects the fact that there is most scope for the LTP4 to influence emissions generated by car trips to, from or within Wiltshire. Wiltshire Council has limited potential to influence emissions from car trips made through the county as choices about mode, vehicle type and routing for the trips are mainly driven by factors outside the county's boundaries. The main opportunity for influence on these trips is therefore by collaborating with neighbouring authorities, transport operators and other bodies on cross boundary measures.

²⁰ BSI (2023) Carbon Management in Infrastructure and Built Environment - PAS 2080. Available at: [PAS 2080:2023 Carbon Management in Infrastructure | BSI \(bsigroup.com\)](https://www.bsigroup.com/standards/PAS-2080:2023-Carbon-Management-in-Infrastructure)

There is also only limited scope for LTP4 measures to influence emissions from heavy goods vehicle freight trips because choices about freight trips, most of which are cross boundary, will largely be driven by commercial decisions made in the private sector and by national government action. The greatest potential is in influencing the 'last mile' of deliveries through measures such as consolidation centres. These measures can have significant impact on local pollutant emissions and traffic conditions in towns and urban areas but their impacts on carbon emissions are limited because they only influence a small proportion of mileage.

The following sections provide an overview of the proposed measures in each of the four policy areas, identifying the ways in which they could support user emissions reductions, particularly for car trips.

3.4.2. Avoid measures



Avoid unnecessary travel – giving people the choice to reduce the number and length of car trips needed through locating services, jobs and other destinations within closer reach; providing digital options; and combining journeys.

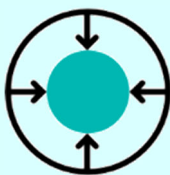
Avoid measures to provide the opportunity to reduce unnecessary travel generally include collaboration beyond the transport sector, to increase options to reduce travel by undertaking activities online or more locally.

Online options remove the need to travel at all, whilst increased local opportunities provide the potential to reduce average trip length (also increasing likelihood of mode shift) and combine journeys, further reducing travel and emissions.

The LTP4 will influence and support measures to Avoid the need to travel so much through increases in both online and local activity. However, many of the measures will need to be funded, supported or delivered by other parties (as set out in Section 5 of the Core LTP4 Strategy). For example, collaboration with internet providers would be needed to improve ultrafast fibre coverage, and with businesses and other organisations to increase levels of online activity. Table 3-1 lists the Avoid measures included in LTP4 by place type and county-wide theme. The measures largely target reductions in car travel but a number of measures focus on reducing the travel associated with deliveries, for instance through consolidation centres and parcel pick up points.

Whilst many of the measures are relevant across the county and different place types, the emphasis will vary between places. For instance, improved coverage of fibre broadband connection is mainly required in Rural Areas, whilst the nature of local services and amenities provided will vary between Principal Settlements and Rural Areas.

Table 3-1 – Avoid measures by place type and county wide strategy

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
Avoid unnecessary travel 	A1 Reduce the need to travel as often through combining journeys and providing digital options								
	A1.1: Improving ultrafast fibre coverage to enable access to online services			✓					
	A1.2: Review of consolidation centres					✓			
	A1.3: Planning for HGV deliveries in new developments					✓			
	A2 Enabling access to services, jobs and other destinations within closer reach								
	A2.1: Co-working spaces	✓	✓	✓					
	A2.2: Provide local services and amenities to reduce travel	✓	✓	✓					
	A2.3: Ensure design requirements are met for new developments	✓	✓						
	A2.4: Parcel pick-up points at local hubs		✓	✓					

3.4.3. Shift



Shift to more sustainable modes of transport – providing better and more accessible options for travel via active travel (walking, wheeling, cycling and horse riding), shared transport, and public transport.

Shift measures aim to reduce emissions from travel by car or road freight by encouraging a shift to make journeys instead by rail, bus, shared transport, or active travel. The measures also improve the options available to those already using sustainable modes.

Table 3-2 lists the proposed Shift measures included in LTP4 by place type and countywide strategies. They include a range of actions to:

- Encourage mode shift to active travel by increasing provision of new cycling and walking routes, facilities and interchange and making walking and cycling environments more attractive and safer. These measures are important in providing an integrated, multi-modal, low carbon transport system. The potential impact on carbon emissions of individual trips shifting from car to active travel is relatively low as they are short trips which only account for a small proportion of emissions (as outlined in Section 2). However, the potential influence increases when active travel is used as the first or last

leg of longer public transport journeys and when combined with measures to encourage more local activity, resulting in shorter and more combined trips.

- Encourage mode shift to public and shared transport by improving the coverage, frequency, quality and range of services provided and improved interchanges and accessibility and fares. These measures have the potential to encourage mode shift for longer journeys and are likely to be focussed particularly on serving journeys to and from the Principal Settlements and Market Towns. It is difficult to provide viable public transport options for the dispersed journeys in rural areas, although there may be more scope to develop shared transport options.
- Measures to encourage mode shift for freight through supporting measures to help wider moves to encourage shift to rail and more local moves to encourage shift to options such as e-cargo bikes for the last or first mile of delivery.

These measures reflect the fact that achieving successful mode shift relies on providing attractive alternatives to car use. The ability to achieve this varies by place type, with more scope in towns where dense populations and trip patterns provide more viable opportunities for providing public transport and active travel options.

The LTP4 measures will play a key role in delivering improvements in travel options by sustainable modes bringing a range of benefits, including improvements in accessibility and wellbeing. However, the potential to achieve greenhouse gas emissions reductions through these measures is limited by the well-recognised fact that it is challenging to encourage car owners to shift mode from using car to other modes, even where good options exist. This is discussed further in Section 3.6.

Table 3-2 – Shift measures by place type and county wide strategy

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
Shift to more sustainable modes of transport 	S1 Enable active travel to be the preferred choice for shorter journeys (or as part of a longer journey) by improving journey safety, access and quality								
	S1.1: Deliver the infrastructure improvements identified in our LCWIPs	✓	✓	✓					
	S1.2: Public realm improvements	✓	✓	✓					
	S1.3: Wayfinding	✓	✓	✓					
	S1.4: Cycle parking	✓	✓	✓					
	S1.5: Safer movement for active travel	✓	✓	✓					
	S1.6: Reduced vehicle speeds where appropriate, especially in or adjacent to residential areas	✓	✓	✓					

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
	S1.7: Cycle hire schemes	✓	✓	✓					
	S1.8: Freight kerbside delivery management					✓			
	S2 Provide more public and shared transport options, and improve service quality								
	S2.1: Bus infrastructure and service improvements on key corridors								✓
	S2.2: Implementation of new DRT services								✓
	S2.3: Ride sharing, including shared taxis	✓	✓	✓					
	S2.4: Support for more frequent or new direct rail services								✓
	S2.5: Support for rail capacity upgrades								✓
	S2.6: Supporting availability of train servicing facilities								✓
	S3 Provide better access to public and shared transport services								
	S3.1: Improve access to and from public transport stops and stations by sustainable modes of travel	✓	✓	✓					
	S3.2: New stations		✓						
	S3.3: Improved waiting and interchange facilities at bus stops and stations								✓
	S3.4: Provision of real time passenger information at bus stops								✓
	S3.5: Rail station upgrades								✓
	S3.6: Mobility hubs	✓	✓	✓					
	S3.7: Explore the role and function of Park and Ride								✓
	S3.8: Smarter ticketing and payment on buses								✓
	S3.9: Accessible and inclusive buses and infrastructure								✓

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
	S3.10: Lower and simpler bus fares								✓
	S3.11: Multi-modal ticketing								✓
	S3.12: Coach parking								✓
	S4 Influence the demand for private car use, ensuring improved access and journey time reliability for those who need it most								
	S4.1: Improved car parking signage						✓		
	S4.2: Provision and consistency of disabled parking						✓		
	S4.3: Review of parking payment methods						✓		
	S4.4: Review of parking charges						✓		
	S4.5: Review of our existing parking assets						✓		
	S4.6: Resident permit zones						✓		
	S5 Encourage and enable shift to more sustainable modes for freight								
	S5.1: Micro-consolidation and use of alternative modes for first/last mile					✓			
	S5.2: Shifting freight from road to rail					✓			
	S5.3: Safeguarding land for rail and consideration of rail freight interchange site					✓			

3.4.4. Improve



Improve vehicle, fuel and network efficiency – through roll out of electric vehicles and charging infrastructure, alternative fuels and technology improvements.

Improve measures aim to reduce the emissions per vehicle mile travelled. Table 3-3 lists the proposed Improve measures included in LTP4 which aim to achieve this change through two main routes:

- Facilitating and encouraging the move to low and zero emissions vehicles through routes including expanding the coverage of EV car clubs, roll out of relevant charging infrastructure and more general support for upgrade of fleets, including buses and coaches, freight and rail (through electrification).
- Encourage and enable safer, more efficient driving and operation of road networks including measures to ease congestion resulting in more efficient driving conditions, decreasing emissions rates.

Many of these measures would be particularly focussed on the Principal Settlements and Market Towns where new charging infrastructure and car club vehicles would be accessible for more journeys and congestion is more likely to exist.

The LTP4 will be able to support and influence Improve measures but impact on carbon emissions will also require action from individuals, organisations and other sectors to fund, support and/or deliver the measures. For instance, the LTP4 measure to roll out of charging points is a necessary component of encouraging EV uptake but charging point availability is only one of many factors affecting the choice to buy an EV. Other LTP4 measures will also help to raise awareness and provide opportunities for uptake (such as through car clubs). However, a number of other influences beyond the scope of LTP4 (such as travel patterns and perceptions of vehicle types) will also affect the decisions by individuals or businesses over whether to use EVs.

Table 3-3 – Improve measures by place type and county wide strategy

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
Improve vehicle, fuel and network efficiency 	I1 Facilitate and encourage move to low and zero emission vehicles								
	I1.1: Roll out public on-street residential charging at scale, focusing provision for residents with no off-street parking							✓	
	I1.2: Encourage and facilitate EV charging provision in new developments and refurbishments							✓	
	I1.3: Ensure that public EV charging is located through robust data analysis and community consultation, employing technology appropriate to its context							✓	
	I1.4: Support the roll out of rapid charger hubs by the commercial sector, ensuring chargers are appropriately located and minimise any associated risks							✓	

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
	I1.5: Investigate the use of cable channel products to enable safe cross-pavement on-street home charging							✓	
	I1.6: Support EV uptake in corporate fleets and car clubs							✓	
	I1.7: Support and publicise regional and national schemes which help make EVs more financially accessible							✓	
	I1.8: Explore adopting policies and support to increase the number of EV taxis							✓	
	I1.9: Ensure that new EV chargers maximise accessibility for both drivers and footway users							✓	
	I1.10: Ensure new public EV charging includes provision for deprived areas and rural locations							✓	
	I1.11: Support for low emission freight					✓			
	I1.12: Expand EV car club coverage	✓	✓	✓					
	I1.13: Support of cleaner, modernised buses and coaches, and related charging infrastructure								✓
	I1.14: Support rail electrification								✓
	I2 Enable safer, more efficient driving and operation of road networks								
	I2.1: Improve our use of technology in traffic and congestion monitoring	✓	✓						
	I2.2: Engage with and prepare for the rollout of new transport technologies	✓							
	I2.3: Improvements to on-road signage on our strategic and major roads								✓

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
	I2.4: HGV parking and rest stops					✓			
	I2.5: Moving traffic offences					✓			
	I2.6: Targeted road infrastructure or junction improvements to relieve congestion								✓

3.4.5. Support



Support and enable delivery of the Avoid, Shift and Improve policy areas – both now and into the future.

Support measures are broad measures intended to support successful delivery of the Avoid, Shift and Improve measures. Table 3-4 lists the proposed Support measures in LTP4 which include:

- Measures that improve knowledge of and ability to use travel options available through awareness raising, training and measures to incentivise change in travel mode (such as apps, mobility credits and the introduction of Mobility as a Service to provide easy access to information on and booking for different travel options) and measures to encourage more efficient driving choices such as the use of efficient driving techniques.
- Activity to work in partnership with Government bodies and stakeholders to support wider measures that need collaboration to progress.
- Activity to develop more detailed plans to progress the proposed measures, such as establishing and managing a road classification, road layout and road user hierarchy.

These measures are generally county-wide and overarching, rather than being focussed on particular place types.

Table 3-4 – Support measures by place type and county wide strategy

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
Support and enable delivery of the Avoid, Shift and Improve policy areas 	SU1 Empower people with the skills, knowledge and motivation they need to safely access more sustainable and healthier transport								
	SU1.1: Raise awareness of sustainable travel options				✓				
	SU1.2: Travel plans				✓				
	SU1.3: Raise awareness of local facilities, amenities and services				✓				
	SU1.4: Incentives for physical activity				✓				
	SU1.5: Interventions for older road users				✓				
	SU1.6: Cycle training to improve skills and confidence				✓				
	SU1.7: Roll out of safety apps				✓				
	SU1.8: Mobility credits				✓				
	SU1.9: Implement Mobility as a Service (MaaS)				✓				
	SU1.10: Reduced carbon intensity of travel via more efficient driving				✓				
	SU1.11: Multi-modal marketing								✓
	SU1.12: Ticketing incentives								✓
	SU2 Work in partnership with Government bodies, stakeholders to improve transport for all								
	SU2.1: Working with businesses to facilitate home working and flexible working				✓				
	SU2.2: Providing, or supporting applications for, grants to businesses and community groups for active travel facilities				✓				
	SU2.3: Work collaboratively with our key stakeholders								✓
	SU2.4: Supporting Community Rail Partnerships								✓

Policy area	Measure	Place-based sub-strategies				County-wide sub-strategies			
		Principal Settlements	Market Towns	Rural Areas	Overarching	Freight	Parking	EVs	Strategic Transport
	SU3 Develop more detailed plans for how our LTP4 Vision and Objectives will be delivered								
	SU3.1: Coordination of street works and roadworks				✓				
	SU3.2: Network maintenance				✓				
	SU3.3: Establish and actively manage a road classification, road layout and road user hierarchy				✓				
	SU3.4: Support for Masterplanning				✓				
	SU3.5: Adopt 'Vision Zero' ambition and Safe System approach				✓				
	SU3.6: Freight Assessment and Priority Mechanism (FAPM)					✓			
	SU3.7: Define route restrictions through Advisory Freight Routes					✓			
	SU3.8: Develop a detailed parking operation and delivery plan						✓		
	SU3.9: Refresh our transport policies and plans					✓			

3.5. Potential emissions impact of LTP4

3.5.1. Overview

This section outlines an indicative estimate of the scale of carbon emissions reduction that could be supported by the impact of the LTP4 measures outlined above, if implemented in combination with related action by individuals, organisations and other sectors.

Section 3.5.2 provides a summary of the approach used to develop the estimate, in line with Step 4 of the draft QCR guidance.

The subsequent sections then discuss how the policy areas contribute to the emissions reduction, the extent to which the estimated reductions could close the identified emissions gap and the type of further action that would be needed to close the remaining gap.

3.5.2. Emissions impact estimate

Inputs used

The indicative estimate of the potential reduction in emissions supported by the proposed LTP4 measures drew on a range of inputs including:

- The baseline transport emissions projections for Wiltshire, developed using data from the Wiltshire Traffic Model, as outlined in Section 2.2.4 and Annex B.
- Details of current and projected travel levels and patterns from sources including DfT Bus Statistics²¹, Office for Road and Rail station usage statistics²², DfT Cycling Statistics²³, DfT traffic estimates²⁴, DfT TEMPRO software²⁵ and the National Travel Survey.²⁶
- Parameters and values from sources including the DfT Transport Analysis Guidance databook.²⁷

The estimates of emissions reductions were made relative to the baseline for 2030, calculated for the baseline and pathways analysis set out in Section 2.2.4.

Approach to assessment and input assumptions

Given the relatively broad level at which the LTP4 measures are specified at this stage, it was not feasible to develop a detailed assessment of emissions reductions, which would require information about the location and characteristics of individual proposed interventions and the patterns of travel in impacted areas. Instead, the estimate was developed to provide an understanding of the scale of change that the combined Avoid, Shift, Improve and Support measures could potentially support, if implemented in combination with related action from individuals, organisations and other sectors (such as individuals and businesses choosing to use EVs, and planning and business support for digital and local activity).

The assessment was based on high-level estimates of the scale of change in travel behaviour and choices that could potentially be supported by the measures by 2030, assuming that they are implemented with a focus on improving available options for travel and alternatives, rather than introducing a step change in the balance between the costs and convenience of using car and other modes. The assumptions used are set out in Table 3-5 and focus mainly on reductions in emissions from car travel, reflecting the balance of measures outlined in the previous section.

The estimate focusses on the impact in 2030 since the degree of uncertainty around issues such as rates of behaviour change increases further into the LTP4 period.

²¹ DfT (2024) Bus statistics. Table Bus01e: Passenger journeys on local bus services by local authority. Available at: [Bus statistics data tables - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/bus-statistics-data-tables)

²² Office for Road and Rail (2024) Table 1415: Time series of passengers' entries exits and interchanges by stations. Available at: [Estimates of station usage | ORR Data Portal](https://www.gov.uk/government/statistics/estimates-of-station-usage)

²³ DfT (2024), Walking and Cycling Statistics. Available at: [Walking and cycling statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/walking-and-cycling-statistics)

²⁴ DfT (2024), Traffic Estimates Table TRA8905: Motor vehicle traffic by local authority and selected vehicle type in Great Britain [Road traffic estimates \(TRA\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/road-traffic-estimates)

²⁵ DfT Trip End Model Presentation Programme (TEMPRO 8.1). Available at: [Trip End Model Presentation Program \(TEMPRO\) download - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/trip-end-model-presentation-program)

²⁶ DfT (2023) National Travel Survey 2022. Available at: [National Travel Survey - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/national-travel-survey)

²⁷ DfT (2024) Transport Analysis Guidance Databook: May 2024. Available at: [Transport analysis guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/transport-analysis-guidance)

Table 3-5 – Assumptions on changes in travel behaviour and choices supported by LTP4 measures

Avoid



- Maintenance to 2030 of up to a 5% reduction in car travel from the reductions in travel still seen following the COVID-19 pandemic. Reduction is primarily assumed to be the result of reduced trip numbers due to more online activity resulting from digital trends accelerated by COVID-19 restrictions, supported by some localisation of activity.

Shift



- The target 10% growth in bus patronage by 2030 (from 2019) identified in the 2021 Wiltshire BSIP is assumed to be achieved, along with similar levels of growth in rail patronage and cycling.
- 2% to 5% increase in car sharing by 2030.
- 1% reduction in van emissions in 2030 due to last mile mode shift offsetting growing deliveries.

Improve



- Improved efficiency of car and van travel as a result of eco-driving or improved network management for up to 5% of travel in 2030.
- A further acceleration of the rapid uptake of EVs assumed to be in addition to the uptake occurring in the baseline projections as a result of national action. Uptake is assumed to accelerate by approximately 6 months to 1 year compared to levels achieved by national action alone by 2030. This equates to approximately an additional 10% to 15% of car and LGV mileage by EVs in 2030 in addition to the assumed impact based on national action.

Further detail on the basis for the assumptions set out in Table 3-5 is provided in Annex C.

Estimated impact

The estimate based on the assumptions outlined above and in Annex C indicates that the combination of LTP4 measures and relevant action from individuals, organisations and other sectors could support changes in travel behaviour and choices with the potential to reduce carbon emissions by approximately 5% to 10% by 2030 (relative to the projected baseline).

The mid-point of the range would close approximately one quarter of the identified emissions gap in 2030 (fully closing the gap would require an emissions reduction from the baseline of approximately 30%, as outlined in section 2.2.4). This indicates that the LTP4 measures, in combination with relevant action from individuals, organisations and other sectors, would support a positive contribution to decarbonisation and progress towards a low carbon transport system for Wiltshire. However, the indicated reduction leaves a significant emissions gap that would need to be closed if transport emissions are to be brought in line with the identified decarbonisation pathway that meets national decarbonisation commitments. The next section provides further discussion on the contribution to the estimated emissions reduction from Avoid, Shift and Improve measures, and Section 3.6 discusses the types of additional action beyond the measures included in LTP4 that would be likely to be needed to close the emissions gap

It is important to recognise that there are limits to the scope of emissions that LTP4 measures are able to influence. As outlined in Section 3.4.1, there is limited potential for

LTP4 measures to influence emissions from freight and through trips. For instance, HGV traffic accounts for nearly 20% of transport emissions in Wiltshire but local measures largely influence only the last leg of delivery. The measures have an important impact on local air quality, traffic and town environment, but a more limited impact on carbon emissions as the trip stage affected accounts for only a small proportion of overall HGV travel.

3.5.3. Contributions to estimated emissions reduction

Balance between Avoid, Shift and Improve measures

The LTP4's greatest potential for supporting emissions reduction through reduced vehicle mileage is through supporting the **Avoid** measures, which encourage the continued reductions in levels of car travel that have persisted since the COVID-19 pandemic, particularly for commuting, business and shopping purposes. This involves continuing to support action by businesses and other sectors to encourage and enable online activity and the localisation of trips to reduce average trip lengths and increase their scope to be combined or shift to other modes.

These measures account for approximately 40% of the estimated emissions reduction (of 5% to 10%). As outlined in Section 3.4, relevant measures to support these changes fall in the categories of:

- **A1** Reduce the need to travel as often through combining journeys and providing digital options
- **A2** Enabling access to services, jobs and other destinations within closer reach

Improve measures to accelerate EV uptake and improve efficiency of car travel also have the potential to contribute to emissions reduction by reducing emissions per vehicle mile.

These measures account for approximately 50% of the estimated emissions reduction (of 5% to 10%). Measures to deliver the changes fall within the following categories:

- **I1** Facilitate and encourage move to low and zero emission vehicles
- **I2** Enable safer, more efficient driving and operation of road networks

As outlined above, LTP4 measures could support action by individuals, organisations and other sectors to promote EV uptake. However, it is important to recognise that achieving the increases in EV uptake assumed compared to the baseline would need significant action, as the baseline projections used to calculate the emissions gap already assume relatively rapid uptake of EVs as a result of national action, which would already require support from local action such as roll out of electric charging points.

To support the additional uptake, a particular area of emphasis would need to be on encouraging EV uptake amongst vehicles with above average mileage, including company cars and car club vehicles. This approach would help to ensure that greater mileage is converted to electric power with each new vehicle, helping to overcome issues associated with limited supply of vehicles and the embodied carbon associated with their construction.

The wide range of measures in the LTP4 to encourage mode **Shift** by improving the alternatives to car use (and to a lesser extent road freight) would also make a contribution to emissions reduction and move towards a low carbon transport system, through measures in the following categories:

- **S1** Enable active travel to be the preferred choice for shorter journeys (or as part of a longer journey) by improving journey safety, access and quality.
- **S2** Provide more public and shared transport options, and improve service quality.

- **S3** Provide better access to public and shared transport services.
- **S5** Encourage and enable shift to more sustainable modes for freight.

The relatively small scale of the estimated emissions reduction achieved by Shift measures (approximately 10% of the total estimated reduction) is consistent with the impact of previous programmes of measures to increase travel by sustainable modes (see Box 4) and highlights the challenge of achieving significant reductions in carbon emissions through mode shift in areas of high car ownership. This issue is discussed further in the next section.

Box 4: Local Sustainable Travel Fund Impact

Recent research by bodies such as Transport Scotland and NatCen has highlighted that evidence of the impact of integrated measures to increase travel by sustainable modes is very limited. However, one valuable source is the evaluation of impacts of the Local Sustainable Travel Fund (LTSF) through which the DfT provided £540 million of funding to local authorities between 2011 and 2015. Funding was used to make sustainable modes more attractive and improve bus and rail patronage and active travel. Measures ranged from new infrastructure to new services and training programmes and were focussed in urban areas and on 'pull factors' to attract those travelling to move to public transport rather than 'push factors'. Evaluation of the impact of the fund indicated the measures achieved a 2.3% reduction in car mileage per person and a 2.2% reduction in carbon compared to comparator locations.

Transport Scotland (2021) 20% Reduction in car km by 2030

Natcen (2020) Impact of interventions encouraging a switch from cars to more sustainable modes of transport. A rapid evidence review.

Transport for Quality of Life (2017) Impact of the Local Sustainable Travel Fund. Synthesis of Evidence

The challenge of achieving emissions reduction through mode shift

The key issue underlying the challenge of achieving significant reductions in emissions through mode shift can be illustrated by the current relative levels of travel by each mode. The number of miles travelled by car drivers in Wiltshire was estimated to be over 50 times the number of miles travelled by bus passengers in 2019 (and over 70 times by 2023 due to the post COVID-19 decline in bus patronage). For rail, the equivalent ratio was 30 to 40 in 2019 and 2023. For cycle the ratio was over 70 in 2019 (i.e. the number of car driver miles is estimated to be over 70 times the number of cycling miles).

These relative levels of travel mean that a 1% decrease in car vehicle miles through mode shift would cause an increase in bus patronage of over 50%, or an increase of over 30% in rail patronage and of over 70% in cycling levels (assuming that the car trips diverted directly to bus, rail or cycling trips of the same length).

Consequently, although the target 10% increase in public transport use assumed is relatively ambitious, the impacts on scale of car travel will be limited. Impacts on traffic levels will be further limited by the fact that, in practice, a significant proportion of the 10% increase in use of sustainable modes is likely to come from other modes, car passengers or new trips, rather than diverting from car driver trips.

These large differences in current levels of travel by mode reflect high levels of car ownership and the fact that, once people own a car, driving becomes the most convenient and cheapest option for the majority of trips. This balance between the cost and convenience of different modes represents the major challenge in delivering decarbonisation through mode shift.

Fuel costs (the main cost of car use likely to be considered on a per trip basis) only account for approximately 40% of the annual costs of owning a car on average²⁸ and parking costs only apply to a small proportion of trips. Other costs of car use are upfront (purchase/depreciation), annual (e.g. insurance and tax) or sporadic (e.g. maintenance). This means that, once someone has invested in owning a car, the extra costs of driving per trip are relatively low, particularly where parking charges are low or absent.

Car trips also rate highly for convenience, particularly as cars and road vehicles are typically prioritised in the allocation of road space and provision of convenient parking space, which reduces time and costs associated with finding and paying for parking and walking to a destination.

Day to day travel decisions are often made on the basis of either habit or the cost and convenience of different options. This means that once people own a car, in current conditions, it becomes the default choice to drive for nearly all trips even if other options are available.

COM-B model of behaviour change

The COM-B model of behaviour change²⁹ (see Box 5) illustrates this issue. The Model identifies that, in order to make a change in travel behaviour, people need all three of the Capability, Opportunity and Motivation to change. Most of the proposed LTP4 mode shift measures focus on providing Capability (e.g., improved travel information and accessibility of services) and Opportunity (e.g., improved services serving more routes) by providing attractive alternatives to car use. It is acknowledged that without elements to provide the Motivation to change, the measures are not likely to achieve significant mode shift from car drivers and therefore emissions reductions from reduced car use. Delivering motivation is likely to require a change in the balance of the costs and convenience of travelling by different modes. For Wiltshire, this approach would be considered as a secondary step once alternative travel opportunities exist.

Box 5: The COM-B theory of behaviour change suggests that three conditions need to be met for a person to change their travel behaviour:

- **Capability** - the person's psychological and physical capacity to undertake the relevant activity (such as taking a bus). It includes having the necessary knowledge and skills (*such as awareness of public transport timetables, routes and fares*).
- **Opportunity** - all of the external factors beyond a person's influence that make the behaviour possible or prompt it (*such as the availability of bus services at the relevant time and serving the relevant route*).
- **Motivation** - defined as the brain processes that energise and direct behaviour. They include habits, emotional responses and **analytical** decision-making (*including deciding on using the bus based on relative cost and convenience of available*

²⁸ Source: Research by the Nimblefins financial advice website: Nimblefins (2024), Average Cost to Run a Car UK 2024. Available at: [Average Cost to Run a Car UK 2024 | NimbleFins](#).

²⁹ Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, 6(1). <https://doi.org/10.1186/1748-5908-6-42>

Differences between place types

The indicative emissions reductions supported by Avoid, Shift and Improve actions set out above are broad countywide averages. The balance will differ by place type.

Transport decarbonisation requires measures that reduce vehicle miles and emissions per vehicle mile in all place types. The range of relevant measures required to achieve emissions reductions will therefore be similar for each place type and it will be important to plan and implement measures in an integrated, efficient way across the county. However, the variation in characteristics between place types will mean that the impacts of measures will vary, as will the balance required between measures that reduce car miles and measures that reduce emissions per mile.

Density of population and trip attractions is a key influence on the likely balance of measures by place type. This affects the likely viability of attractive public and shared transport and active travel alternatives, and the possibility of providing and expanding local services and therefore the potential to provide suitable capability and opportunity to change travel behaviour away from car use. In Rural Areas with dispersed populations there is less potential to deliver viable alternatives to car travel which would provide the opportunity for a mode shift away from car. Therefore, measures in Rural Areas are likely to need to focus more on the need to improve the vehicles used for any travel undertaken (through increased use of more efficient and electric vehicles) and to avoid the need to travel as often and/or as far.

3.6. Closing the emissions gap

Closing the emissions gap in 2030 would require approximately a further 20% to 25% reduction in emissions in addition to the reductions supported by the LTP4 measures (in combination with relevant action by individuals, organisations and other sectors), estimated on the basis of the assumptions set out in Table 3-5.

Closing this gap would require national and regional action to address emissions from trips over which LTP4 measures have limited influence. In particular, action would be needed in relation to freight trips (for which decisions are largely driven by commercial and national Government influences) and trips passing through the county.

Wider national action would also be needed to achieve further reductions in emissions from passenger trips to, from and within the county. Achieving the level of emissions reduction required would likely necessitate an underlying change in approach to private travel and car usage. This would involve measures beyond those included in LTP4 and which are likely to be most effective if introduced at the regional or national level.

Assuming that the additional emissions reductions to close the gap are split evenly between reductions in vehicle miles (Avoid and Shift measures) and reductions in emissions per vehicle mile (Improve measures), closing the emissions gap would involve:

- 10% to 15% reduction in emissions through Improve measures.
- 10% to 15% reduction in emissions as a result of a reduction in vehicle miles through Avoid and Shift measures.

Other balances of measures could be applied instead of this even split. For instance, an even split between Avoid, Shift and Improve measures could be assumed. However, as outlined in Section 3.2.1, it is important to note that there are limits to the scale of change that can be achieved through Improve measures and the uptake of EVs alone. Practical limits are imposed through the rate at which the vehicle fleet can physically change and the rate at which new vehicles can be built and supplied. There are also important whole

lifecycle carbon implications of building new, relatively carbon intensive EVs. Additionally, EVs do not address other negative impacts of car traffic such as congestion, social exclusion, road maintenance, and some elements of air pollution.

Therefore, although, EVs are often cited as the solution to transport decarbonisation, they cannot close the emissions gap alone. A balance of measures from across Avoid, Shift and Improve would be required in addition to those included in the LTP4 to deliver the pace and scale of decarbonisation needed to close the emissions gap and reach the decarbonisation pathway.

The implied changes required to further close the emissions gap beyond LTP4 measures would require substantial changes in travel patterns and behaviour.



Achieving the further 10% to 15% reduction in emissions through **Improve** measures, in addition to the baseline rate of EV uptake already assumed and the impact of LTP4 measures, would be challenging. A change in approach to car use towards pay per use (car clubs) could support the acceleration needed. Widespread availability of pay per use EVs would accelerate their uptake more effectively than if the vehicles were privately owned, since each car club vehicle is estimated to replace about 25 private vehicles on average and drivers would not face the off-putting upfront cost of buying an EV. Pay per use vehicles would also support the use of smaller, more efficient vehicles³⁰ as drivers would be able to hire the most appropriate vehicle for a given journey rather than have a car chosen to be large enough to accommodate occasional journeys (like holidays) that is used for all journeys, regardless of size requirements.



A further reduction of approximately 10% to 15% in emissions through a reduction in vehicle miles in 2030 achieved by **Avoid and Shift** measures, in addition to the changes supported by LTP4, would represent a significantly larger reduction in car travel than has been achieved through transport plans in the past (see Box 4). The reduction would involve considerable changes in travel behaviour and choices, including substantial mode shift away from car use.



As outlined in Section 3.5.3 changes of this scale would likely require a change in the approach to car use to provide the motivation needed.

Measures to change the approach to car use have the potential to accelerate EV uptake and bring the change in balance of the cost and convenience of different modes that is needed to bring about significant mode shift and contribute to decarbonisation. Many of the measures involved are most likely to be effective if implemented at the regional or national scale.

Any measures considered would need to be carefully designed and implemented to ensure that they do not have negative impacts on issues such as wellbeing and accessibility. For instance, in Rural Areas dispersed populations and trip patterns make it challenging to provide the viable public and shared transport services which would be needed to provide the capability and opportunity for individuals to switch away from car use, without being potentially affected by a loss of accessibility.

Taking a whole lifecycle carbon perspective, any measures developed would also need to account carefully for lifecycle carbon impacts. This is likely to involve focussing on making best use of existing infrastructure and limiting the amount of new infrastructure (with

³⁰ Using a small car rather than a medium or large car can save ~ 30% emissions per km on average based on emissions factors by vehicle in the DESNZ Greenhouse Gas Conversion Factors 2024

associated embodied carbon). The LTP4 Avoid, Shift and Improve measures seek to improve travel choices by sustainable modes, and provide the foundation for making more sustainable travel possible. They would provide a good basis for any future wider action and would support and enhance the decarbonisation impacts of any such measures introduced.

Overall, addressing decarbonisation is a shared challenge and the scale of decarbonisation required to close the emissions gap will need action both at and beyond the local level. National and regional level action will be needed both to achieve larger reductions in passenger transport emissions and to address the majority of freight emissions.



The identified Support measures of working in partnership with Government bodies and stakeholders therefore provide an important route through which the LTP4 will support decarbonisation working to address this shared challenge.

4. Concluding summary

4.1. Context and scale of the decarbonisation challenge

Decarbonising the transport sector is recognised to be an important and significant challenge for Wiltshire, as it is for other authorities, nationally and internationally. The transport sector generated 38% of Wiltshire's greenhouse gas emissions in 2022 and emissions have remained at similar levels for decades, whilst emissions from other sectors have decreased. Car use accounts for approximately 60% of these emissions, with longer trips and travel by more rural and wealthier households contributing above average levels of emissions.

Projected baseline transport carbon emissions for Wiltshire indicate that, without further decarbonisation action, there will be a substantial 'emissions gap' between projected emissions and the identified decarbonisation pathway (the midpoint of the DfT's Transport Decarbonisation Plan pathway). Closing the emissions gap would require reductions of emissions from the baseline projections of approximately 30% in 2030 and 55% in 2035. These decreases are in addition to the emissions reductions already included in the baseline projections as a result of relatively rapid take up of EVs achieved by national action such as the Zero Emissions Vehicle mandate and bans on the sales of new petrol and diesel vehicles.

4.2. Role of LTP4

In recognition of the scale of the decarbonisation challenge, carbon considerations are part of the LTP4 vision and objectives and have informed the development of the LTP4, alongside the issues associated with other objectives, including the challenges of reducing car use in a county with a largely rural and dispersed population. The policies and measures developed for the LTP4 are categorised in terms of Avoid, Shift and Improve approaches to supporting carbon emissions reductions, along with a broader category of Support measures.



The importance of incorporating whole lifecycle carbon considerations and management for any changes to the transport system resulting from the LTP4 measures is recognised in the LTP4's sustainability principles.

The high-level assessment presented in Section 3 indicates that the combination of LTP4 measures with relevant action by individuals, businesses and other sectors, could potentially support transport sector emissions reductions that would close approximately one quarter of the emissions gap in 2030. This reduction is largely driven by Avoid and Improve measures to reduce the need to travel and accelerate the uptake of EVs, building on national action (for instance through a focus on upgrading high mileage vehicles and fleets).

The LTP4 measures will therefore support decarbonisation and progress towards a low carbon transport system for Wiltshire. They will also make significant contributions to the other five LTP4 objectives including benefits for health, wellbeing, safety and our unique environments through reductions in traffic levels and improved travel options.

However, the measures will not close the emissions gap to reach the decarbonisation pathway which has been identified to meet national carbon budgets and commitments. If carbon budgets are not met globally, temperatures will continue to rise, increasing the wide-ranging risks associated with climate change, as summarised in Section 2.1.1.

It is important to recognise that there are limits to the influence of LTP4 and its ability to close the emissions gap. For instance, LTP4 measures have limited opportunity to change travel choices and emissions for most freight trips (which are largely driven by commercial and national government influences) or trips passing through the county. As an example, HGV traffic alone accounts for nearly 20% of transport emissions in Wiltshire but local measures largely influence only the last leg of delivery. The measures have an important impact on local air quality, traffic and town environment but a more limited impact on carbon emissions as the trip stage affected accounts for only a small proportion of overall HGV travel.

4.3. Closing the emissions gap

Closing the remainder of the emissions gap **beyond the influence of the LTP4**, would require wider national and regional action to address emissions from trips over which LTP4 measures have limited influence, particularly freight trips and trips passing through the county.

In addition, achieving the level of emissions reduction required would likely necessitate an underlying change in approach to private travel and car usage, changing the balance of cost and convenience between car and other modes. This would involve measures beyond those included in LTP4 and which are likely to be most effective if introduced at the regional or national level.

Any measures considered would need to be carefully designed and implemented to ensure they do not have negative impacts on issues such as wellbeing and accessibility and that all six of the LTP4 objectives continue to be met. For instance, in Rural Areas dispersed populations and trip patterns make it challenging to provide the viable public and shared transport services which would be needed to provide the capability and opportunity for individuals to switch away from car use, without being potentially affected by a loss of accessibility.

Measures developed would also need to account carefully for lifecycle carbon impacts. This is likely to mean making best use of the existing transport system and limiting the amount of new infrastructure (with associated embodied carbon).

The LTP4 measures to support Avoid and Improve measures and increase and improve travel choices by sustainable modes, provide the foundation for making more sustainable travel possible. They would provide a good basis for wider action and would support and enhance the decarbonisation impacts of wider measures introduced.

Overall, decarbonisation is a shared challenge, and the scale of decarbonisation required to fully close the emissions gap will need action both at and beyond the local level. National and regional level action will be needed both to achieve larger reductions in passenger transport emissions and to address emissions from freight.



The identified Support measures of working in partnership with Government bodies and stakeholders therefore provide an important route through which the LTP4 will support decarbonisation, working together to address this shared challenge.

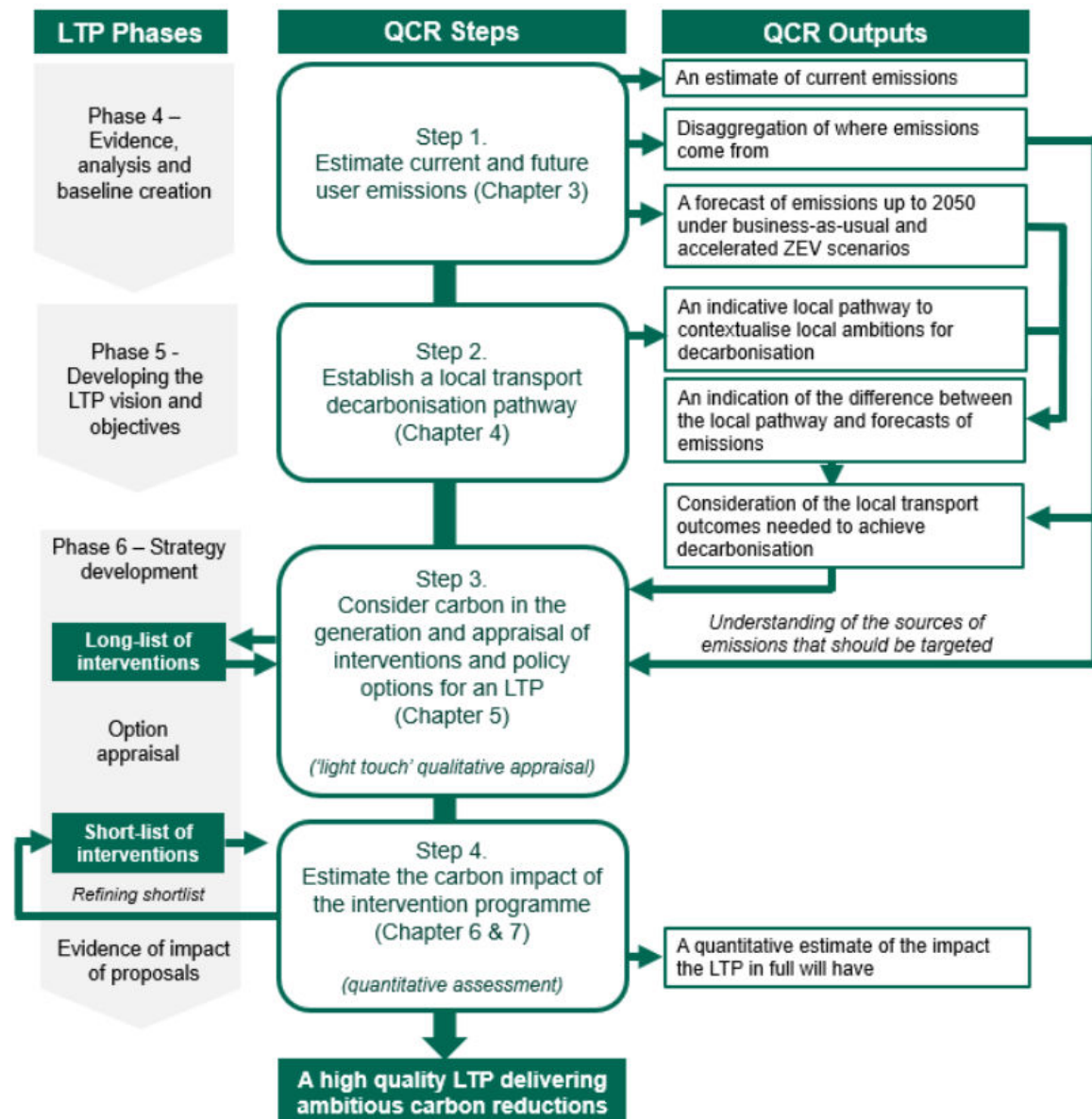
Annex A. DfT Draft Quantifiable Carbon Reduction assessment guidance

Following the publication of the Transport Decarbonisation Plan in 2021, the Department for Transport (DfT) started to produce guidance on developing LTPs. The early drafts indicated that transport decarbonisation should be an important component of updated LTPs, considering both transport user emissions and the embodied carbon associated with infrastructure, equipment and vehicle fleet.

Alongside the LTP guidance, the DfT was also developing guidance on Quantified Carbon Reduction (QCR). Early versions of the guidance, circulated amongst the local government community, included a flowchart (shown in Figure A-1), setting out the steps that should be followed in considering carbon issues within a Local Transport Plan.

The development and release of the guidance was paused, and it is not yet whether the guidance will be released. Nevertheless, the draft provides a useful framework for considering transport decarbonisation and has informed the development of Wiltshire's LTP4.

Figure A-1 – Draft DfT QCR Guidance



Annex B. Carbon assessment approach

B.1. Overview

This Annex provides further detail on the assessment approach used to estimate projected baseline transport emissions in Wiltshire as a basis for identifying the estimated emissions gap that LTP4 needs to contribute to closing.

The baseline represents surface transport emissions within Wiltshire and is based primarily on:

- Detailed Wiltshire Traffic Model (WTM) data on the volume and type of traffic on the roads in the county, by road link; and
- Emissions factors (grammes of carbon emitted per vehicle mile) by vehicle type and speed band.

Emissions estimates were produced for WTM's two modelled years of 2018 and 2036 and represent well to wheel carbon dioxide equivalent (CO₂e) emissions within Wiltshire's boundary.

The remainder of this Annex sets out:

- The data sources used for the 2018 base emissions estimate
- The additional data sources used for the future year estimates
- The calculation steps undertaken
- An overview of the baseline emissions estimates produced
- The emissions gaps implied by the baseline emissions forecast

Well to wheel, well to tank and tank to wheel emissions

Well to wheel (WTW) emissions include emissions associated with extracting, generating and transporting the fuel or energy to the vehicle (**well to tank, WTT**) as well as the emissions generated directly by vehicle use i.e. tailpipe emissions (**tank to wheel, TTW**). Many summaries of transport sector emissions focus on TTW emissions to avoid double counting (e.g. with the industrial sector of the emissions associated with diesel production). However, it is important to understand the WTT component to understand the full emissions impacts of travel, particularly for EVs which have no tail pipe (TTW) emissions. Well to wheel is consistent with the 'End user' definition of emissions used by DESNZ in their local authority emissions statistics.

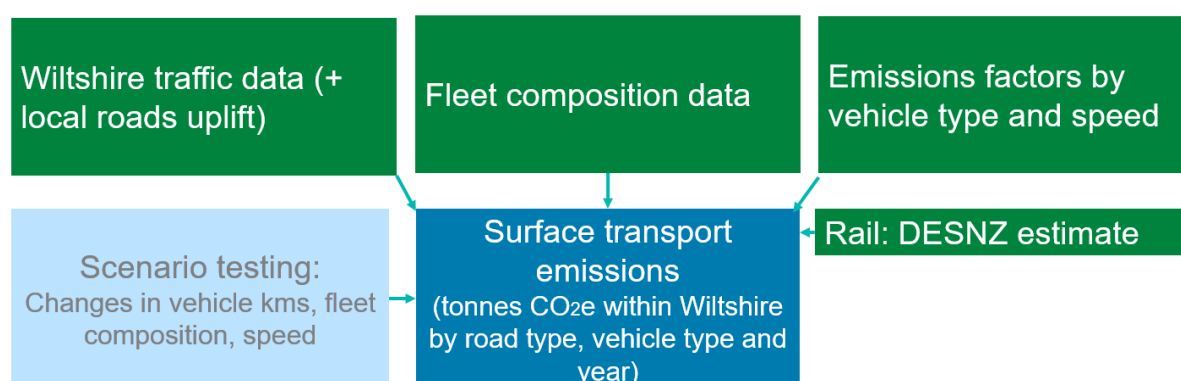
B.2. Data sources for 2018 emissions estimate

Figure B-1 provides a simple summary of the carbon calculator used to produce the carbon baseline estimates. The green boxes highlight the main inputs which fall in four main categories:

- Wiltshire Traffic Model data
- Fleet composition data
- Emissions factors
- Department for Energy Security and Net Zero (DESNZ) rail emissions estimate

Each input category is discussed in more detail in the following sections.

Figure B-1 – Summary of carbon calculator



B.2.1. Wiltshire Traffic Model data and local roads uplift

WTM traffic data for each modelled road link within Wiltshire formed the primary input to the carbon calculations.

The key inputs were traffic flows, distances, and speeds by speed band (each band covering a range of 5 mph) for each vehicle type (car, LGV and HGV), for each Wiltshire road link and for each modelled time period.

The model data was supplemented by an uplift to represent the traffic on minor roads that are not captured in the traffic model. The uplift was based on Ordnance Survey GIS data and DfT road length statistics providing length of unmodelled road links³¹ and DfT traffic count data for average traffic flows on minor roads in Wiltshire.³²

As bus services are not fully modelled in the WTM, bus vehicle kilometres used in the calculations were also uplifted to be consistent with the levels recorded for Wiltshire in DfT's Bus Statistics.³³

B.2.2. Fleet composition data

For the 2018 base year, fleet composition data (i.e. the proportions of vehicles by fuel / energy type) was taken from the DfT's Transport Analysis Guidance (TAG) data book (May 2024 version)³⁴, which is also consistent with the assumptions used in the National Atmospheric Emissions Inventory (NAEI)).

B.2.3. Emissions factors

The emissions factors (in gCO₂e/vehicle km) were derived from three key components:

- Estimates of fuel consumption/electricity use:
 - Tank to wheel energy consumption (in litres or kWh per vehicle km for each vehicle type in each speed band) using functions from the DfT TAG databook, which relate fuel consumption or electricity use to vehicle type, fuel type, speed, year, and

³¹ DfT (2023) Road length statistics. Available at: [Road length statistics \(RDL\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/road-length-statistics)

³² DfT traffic count data. Available at: [Map Road traffic statistics - Road traffic statistics \(dft.gov.uk\)](https://www.gov.uk/government/statistics/map-road-traffic-statistics)

³³ DfT (2024) Bus statistics. Table Bus01e: Passenger journeys on local bus services by local authority. Available at: [Bus statistics data tables - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/bus-statistics-data-tables)

³⁴ DfT (2024) Transport Analysis Guidance. Available at: [Transport analysis guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/transport-analysis-guidance)

distance of travel and are drawn from the European COPERT³⁵ (Calculation Of Pollutant Emissions from Road Transport) emissions model (and are also consistent with the factors used for the NAEI³⁶).

- Carbon intensity factors to convert fuel and electricity consumption estimates to estimated emissions impacts - using kg CO₂e / litre of fuel from the DfT's TAG databook and kg CO₂e / per kWh of electricity from the Department for Energy Security and Net Zero (DESNZ) appraisal dataset^{37 38}.
- Well to tank uplift factor to apply to tank to wheel emissions from petrol, diesel, and electricity - using the uplift factors from DESNZ Greenhouse Gas Conversion Factors³⁹.

B.2.4. Rail emissions estimate

The rail emissions estimate for 2018 was drawn directly from the DESNZ Local Authority carbon emissions estimate for Wiltshire for 2018⁴⁰.

B.3. Data sources for 2036

The 2036 reference case emissions estimates were calculated in the same way as the 2018 estimates, accounting for the two key variables influencing future transport emissions i.e.:

- Changes in the number of vehicle miles travelled by different categories of vehicles (cars, vans, goods vehicles, buses etc.), reflecting changes in trip numbers, trip lengths, and mode choice; and
- The composition of the fleet for each vehicle category (in terms of the proportions of vehicles of different sizes, efficiency, and fuel / energy source), determining emissions produced per mile travelled.

Forecast vehicle miles were obtained from the WTM Reference Scenario for 2036⁴¹.

For fleet composition, five different baseline fleet scenarios were produced to reflect different assumptions regarding changes through time, in particular in relation to the uptake of zero emissions vehicles, as follows:

³⁵ COPERT is a programme, financed by the European Environment Agency (EEA), developed to calculate air pollutant emissions from road transport implementing the approaches from the European EMEP/EEA air pollutant emission inventory guidebook

³⁶ The NAEI is compiled by the National Environmental Technology Centre on behalf of the Department for Environment, Food and Rural Affairs (DEFRA), it is the standard reference air emissions inventory for the UK and includes emission estimates for a wide range of pollutants <https://naei.beis.gov.uk/>

³⁷ DESNZ data tables to support the Treasury Green Book supplementary appraisal guidance on valuing energy use and greenhouse gas (GHG) emissions. Available at: <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>.

³⁸ Using domestic grid average intensity from the DESNZ dataset as recommended by the DESNZ for calculation of baseline emissions rather than marginal electricity intensity, which is recommended in the TAG databook to appraise changes in energy use.

³⁹ DESNZ (2024) Greenhouse gas reporting: conversion factors. Available at. [Greenhouse gas reporting: conversion factors 2024 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors)

⁴⁰ DESNZ (2024) UK local authority and regional greenhouse gas emissions statistics. Available at [UK local authority and regional carbon dioxide emissions national statistics: 2005 to 2018 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018)

⁴¹ Scenario 1 from the traffic modelling for the Local Plan was used, including a Do Minimum allowance for Local Plan growth

- **DfT TAG baseline scenario** – rapid short term EV uptake scenario reflects the current DfT TAG databook assumptions on EV uptake⁴². Since November 2022, TAG figures have assumed rapid EV uptake rate to 2030, e.g. assuming 15% of car vehicle kms will be undertaken by EVs by 2025 (the proportion previously estimated for 2030) and 36% by 2030. The rate of uptake is explained as being due to more stringent 2025 to 2030 CO₂ regulations for manufacturers and reductions in battery prices. However, the assumptions already appear ambitious (e.g. assuming 5% of car miles by EVs in 2022, and 11% in 2024, when only 1.9% of licenced cars were battery EVs nationally by the end of 2022). The forecast does not account for the bans on petrol/diesel car, van and HGV sales initially announced in November 2020 and November 2021 by government, because they are not yet considered committed. Consequently, EV uptake is assumed to slow in the 2030s.
- **National fleet action scenarios** reflect a view of the impact of the Government's sales bans for petrol and diesel vehicles.
 - **Original national sales ban scenarios** reflect a view of the impact of the Government's initially announced dates for the sales bans for petrol and diesel vehicles (2030 for cars and vans and 2035/2040 for HGVs). The scenarios are based on forecasts produced in 2021 and assume a slower rate of EV uptake to 2030 than the most recent TAG forecasts (but more rapid than the previous TAG forecasts). The uptake forecasts are then more rapid than TAG forecasts after 2030. Two scenarios show the sequential impacts of bans on different vehicle types as follows:
 - **Petrol/ diesel car/ van sales ban 2030**, which reflects the potential impact on uptake of EVs of the national action to ban petrol and diesel car and van sales in 2030, as originally announced in November 2020. The fleet forecast is based on the Society of Motor Manufacturers and Traders (SMMT) Central Forecast published in June 2021. The HGV fleet is assumed to remain as in the baseline, i.e. a fully diesel fleet with some efficiency improvements through time.
 - **Sales ban for all petrol/ diesel vehicles 2030 onwards**. This scenario builds on the car/ van sales ban scenario to include a representation of the impact of the diesel HGV sales bans that were confirmed by Government in November 2021. The sales ban dates are 2040 for vehicles over 26 tonnes and 2035 for vehicles under 26 tonnes and the scenario assumes that the uptake of ZEV in the HGV fleet will occur in line with the forecasts in the CCC's Sixth Carbon Budget Balanced Pathway.
 - **Delayed sales ban scenarios**. In September 2023 the Government announced a delay to the date for the ban on sales of petrol and diesel cars and vans to 2035. This remains the announced date for the ban (although it is possible that the new Government will revert to the 2030 date). The last 2 fleet scenarios tested adjust the 2030 ban based scenarios to reflect the potential impact of the delay (recognising that the Zero Emissions Vehicle mandate remains in place with an 80% target for 2030). The date of the HGV sales ban is assumed to remain unchanged.
 - **Petrol/ diesel car/ van sales ban 2035**
 - **Sales ban for all petrol/ diesel vehicles 2035 onwards**

⁴² DfT (2024) Transport Analysis Guidance Databook. Available at: [TAG data book - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/123456/TAG_data_book_-_GOV.UK.pdf)

For all five fleet scenarios, the change in carbon intensity of electricity generated was derived from the DESNZ projections, as used in the TAG databook.

Areas of uncertainty influencing future surface transport emissions

There are a number of areas of uncertainty in forecasting future transport emissions including:

- Levels of traffic demand.
- Rate of uptake of electric cars and vans.
- Future trends in purchase of SUVs and large cars.
- Rate of development and uptake of zero emissions HGVs.
- Speed of decarbonisation of the electricity grid.

The data used for the baseline scenarios are intended to be central forecasts to provide a robust estimate. The calculations also allow for sensitivity testing as needed.

B.4. Calculations

B.4.1. Modelled year calculations

The calculations of emissions totals for both modelled years involved the following steps:

1. Calculation of vehicle miles travelled by road type, vehicle type (car, LGV, HGV), time period, and speed band (each band representing a 5 mph range).
2. Application of an uplift to allow for traffic on the minor roads that are not captured in the model, based on road length from OS Open Roads mapping layer and DfT Road Length statistics⁴³ and average traffic counts for B roads, C roads, and unclassified roads for 2015 to 2018 in Wiltshire from DfT traffic count data⁴⁴.
3. Calculation of fuel consumption/electricity use for traffic within Wiltshire for 2018, for each vehicle type, each speed band, and each time period. The calculations used the TAG fuel consumption formulae which relate fuel consumption to vehicle type, fuel type, speed, year, and distance of travel.
4. Expansion of the fuel and electricity consumption estimates (in litres and kWh respectively) for the modelled time periods to represent:
 - a. Full weeks - using the Wiltshire Traffic Model expansion factors.
 - b. Full years - on the assumption of 245 working days per year and the rest of the year being weekend days or bank holidays.
5. Conversion of fuel and electricity consumption estimates to estimated emissions impacts by year using the DfT and DESNZ carbon intensity factors (kg CO₂e / litre of fuel or kWh of electricity) by year.

B.4.2. Calculations for emissions trajectory

To provide an emissions trajectory for comparison with target decarbonisation pathways, the modelled data for 2018 and 2036 was supplemented with estimates of traffic for the additional years of 2021, 2026, 2031, 2041, 2046, and 2050. These estimates were derived through interpolation and extrapolation of the data for the two modelled years, and informed

⁴³ DfT (2023) Road length statistics. Available at: [Road length statistics \(RDL\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/road-length-statistics)

⁴⁴ DfT traffic count data. Available at: [Map Road traffic statistics - Road traffic statistics \(dft.gov.uk\)](https://www.gov.uk/government/statistics/map-road-traffic-statistics)

The estimated traffic forecasts for these years were combined with relevant fleet composition and emissions factors to provide emissions estimates in each year.

Figure B-2 provides a summary of the calculations in the carbon tool, including a number of inputs that allow sensitivity testing:

- Electric vehicle uptake rates.
- Rebound effect (reflecting the tendency for people to drive more when costs are lower, for instance when driving EVs).
- Real world uplift for emissions (reflecting the fact that observed vehicle emissions in real life driving conditions are typically greater than the rates estimated in test conditions).
- Rate of decarbonisation of electricity provision.

The flowchart illustrates the inputs and outputs of a CO2 emissions model. It is organized into five main columns representing different data sources or models, with arrows indicating the flow of information between them.

Columns (Sources):

- Column 1:** DfT forecasts, user assumption; Demand scenarios; Rebound effect; Defra, research.
- Column 2:** Traffic model outputs, DfT regional forecasts and GIS road length analysis.
- Column 3:** DfT TAG databook & other technical sources e.g. SMMT, EV uptake, UKERC, Veh. size.
- Column 4:** COPERT (European emissions model more detailed data underlying data used in DfT TAG).
- Column 5:** DESNZ & National Grid Scenarios; Electricity grid carbon intensity; Real world uplift; Defra, research.

Key Inputs (A, B, C):

- A) Vehicles kilometres**
 - 5 year intervals
 - Road type (Motorway, A Road, Minor),
 - Vehicle type (Car, LGV, HGV & bus)
 - 5 mph speed band
- B) Fleet composition**
 - (e.g. %age of car kms by small diesel and large petrol cars)
 - Various scenarios tested (e.g. varying rate of uptake of EV)
- C) Emissions factors**
 - (gCO2e per vehicle km) by detailed vehicle type (e.g. small diesel car) by speed band

Key Output (D):

D) CO2e emissions by road type, vehicle type by year
for identified scenario (defined by A, B, C and selected sensitivity tests)

Key:

- Source (Grey box)
- Key input (Blue box)
- Output (Dark blue box)
- Sensitivity test variable (Light blue box)

B.5.1. 2018 emissions

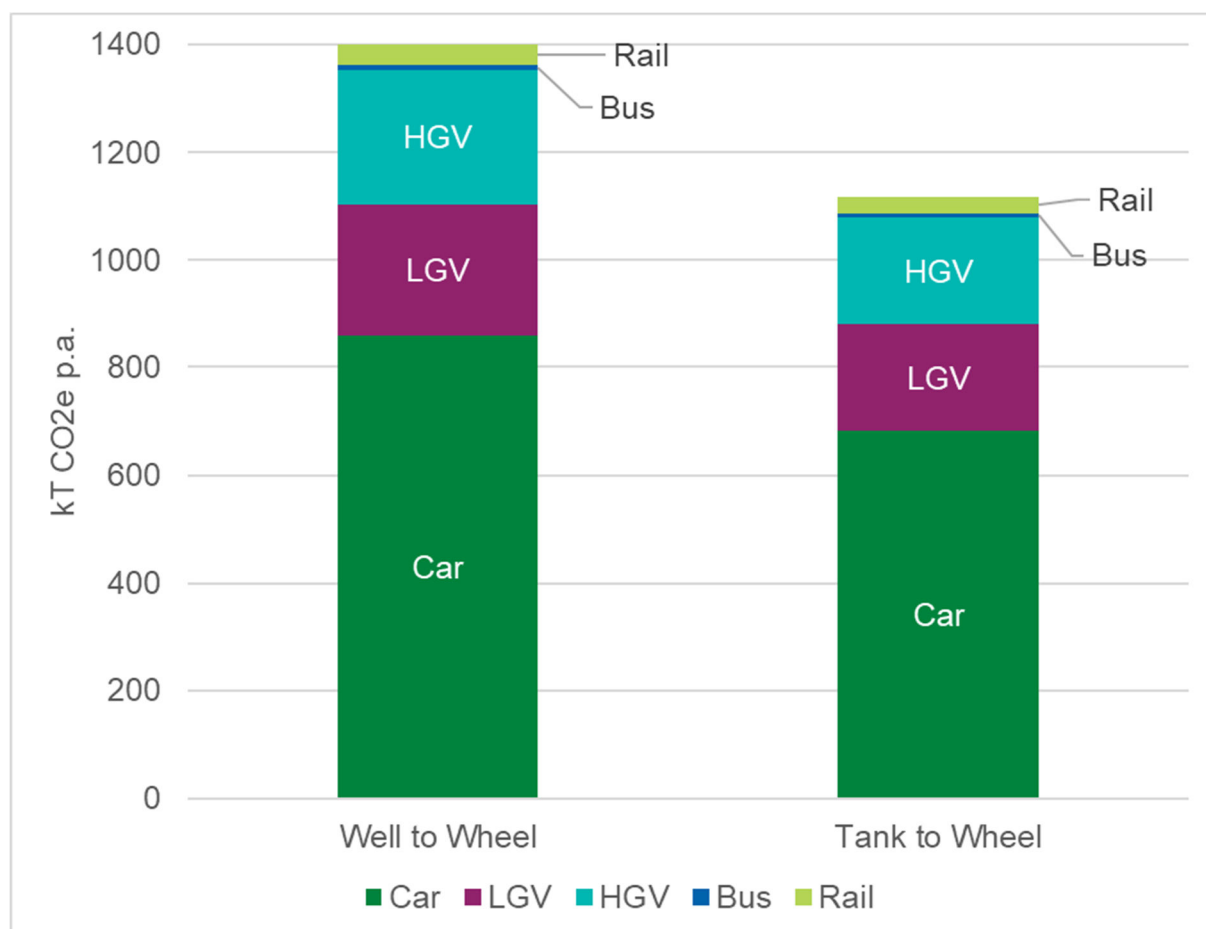
The estimated baseline transport emissions for 2018 are summarised in Figure B-3, disaggregated by vehicle type and shown separately for tank to wheel and well to wheel emissions. Total estimated emissions are approximately 1400 kilotonnes (kT) p.a. (well to wheel), with the well to tank component accounting for about 20% of the total.

Cars are estimated to account for 61% of the 2018 emissions, followed by HGVs accounting for 18%, LGVs 18%, rail 3%, and buses 1%.

⁴⁵ DfT (2022) National Road Traffic Projections. Available at: [National road traffic projections - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/national-road-traffic-projections)

Of the road total, emissions from motorway travel account for just over 20% of the total, A roads for approximately 45%, and minor roads for approximately 35% of total emissions.

Figure B-3 – Estimated surface transport emissions, Wiltshire, 2018 (kT CO₂e)



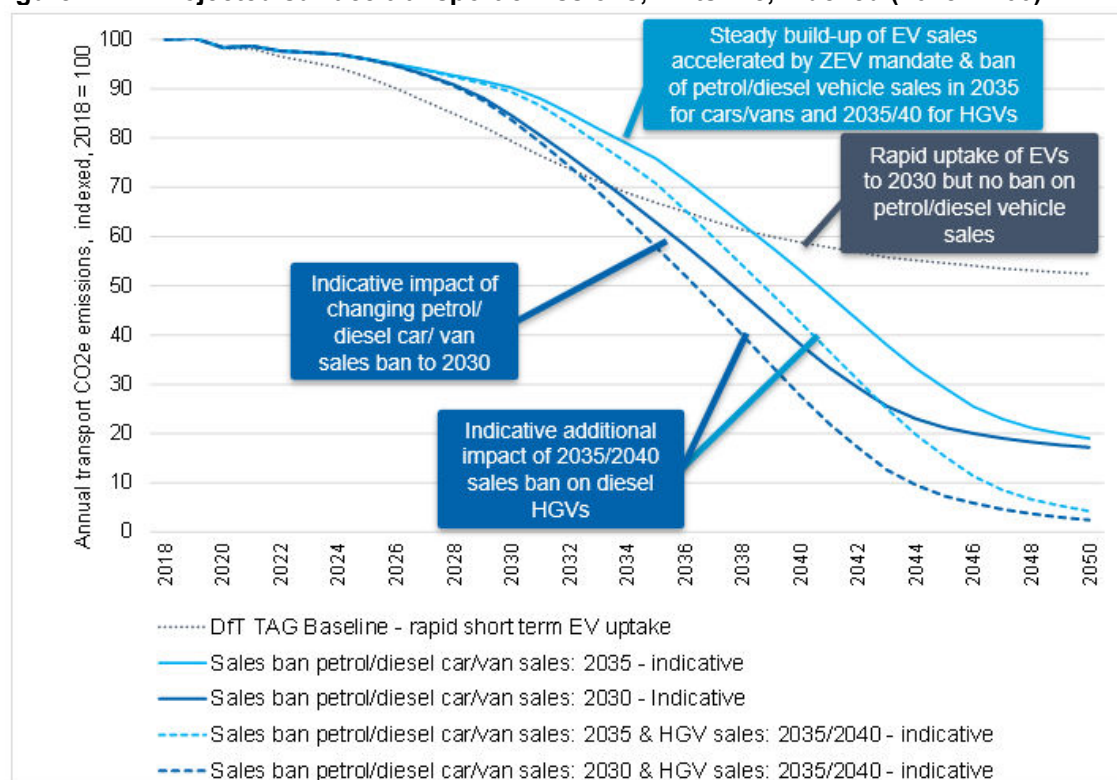
A sense check on the emissions estimate produced was undertaken, comparing the 2018 emissions estimate against the DESNZ local authority emissions estimate for Wiltshire for 2018⁴⁶. The calculated figure for the county was just under 110% of the DESNZ total. The differences are likely to be largely explained by minor differences in the process of estimating traffic totals and the distribution of traffic by speed band and in the Tank to Wheel to Well to Wheel conversion factor used.

B.5.2. Future reference case emissions

Figure B-4 shows forecast future emissions assuming reference scenario traffic growth and the five different fleet change scenarios outlined above.

⁴⁶ DESNZ, 2024, UK local authority and regional greenhouse gas emissions statistics. Available at: [UK local authority and regional greenhouse gas emissions statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-statistics)

Figure B-4 – Projected surface transport emissions, Wiltshire, indexed (2018 = 100)



All of the scenarios show reductions in emissions over the time period to 2050. In the 2020s reductions are fastest in the TAG baseline scenario due to the rapid short term uptake in EVs assumed. However, by the early 2030s emissions reductions in the scenarios assuming a 2030 car and van ban overtake the TAG scenario and by the mid-2030s the delayed sales ban scenarios catch up with the TAG scenario.

Decreases in emissions are slower in the 2030s and 2040s in the TAG scenario whilst they accelerate for the sales ban scenarios as uptake of EV and other ZEV's picks up speed. By the second half of the 2040s emissions levels are at very low levels for both scenarios assuming a ban on diesel HGV sales as very few petrol and diesel vehicles remain in the fleet.

B.6. Identifying the emissions gap

B.6.1. Transport decarbonisation pathways

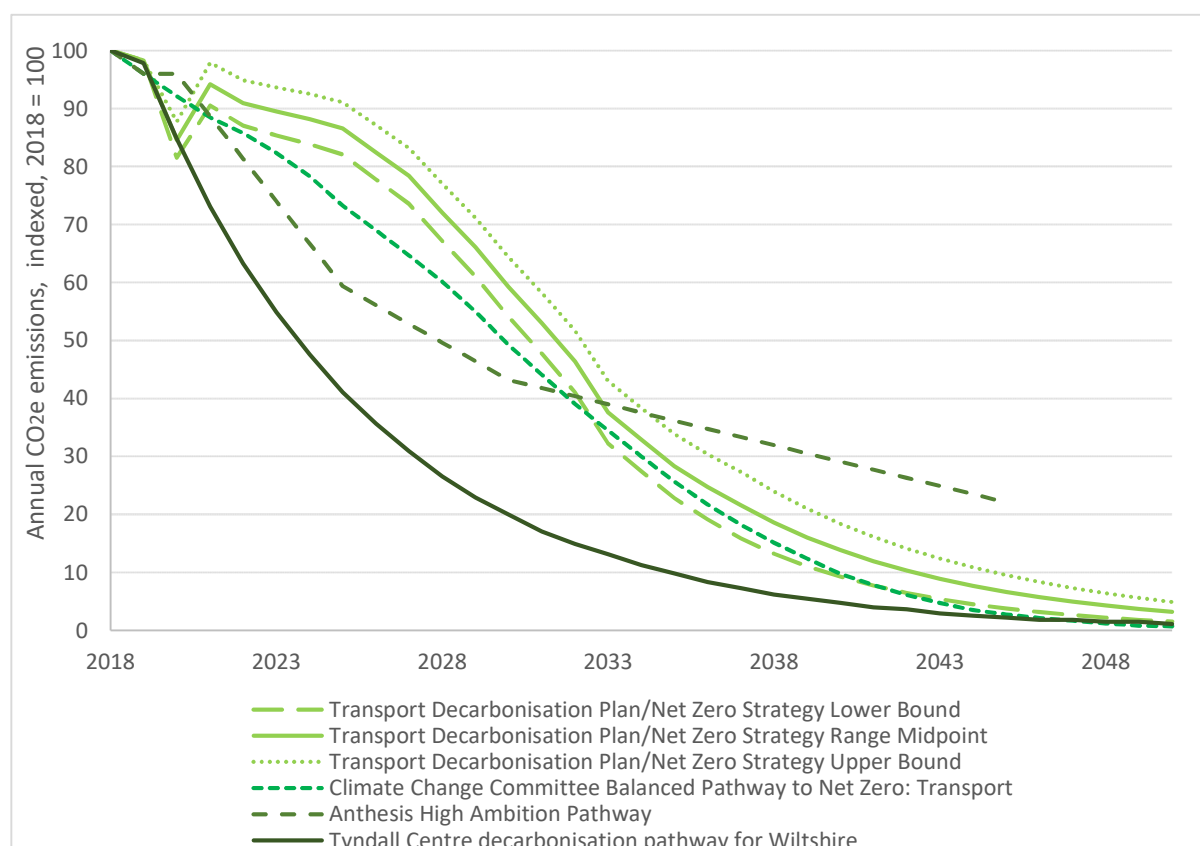
Figure B-5 shows six trajectories (decarbonisation pathways) that illustrate different views on the scale of decarbonisation required by the transport sector in Wiltshire over the decades to 2050 in order to meet decarbonisation commitments at the local and national level.

Decarbonisation pathways and targets are specified on the basis of total 'budgets' or upper limits of cumulative emissions to 2050 that are identified by climate scientists to limit the risk of serious climate change

The pathways highlight that the timing of action is important as well as meeting the challenging 2050 Net Zero target. Once emitted, carbon emissions (and other greenhouse gases) remain in the atmosphere for decades, continuing to cause warming. Cumulative emissions are therefore the main driver of climate change and limiting cumulative emissions to meet identified carbon budgets is the key requirement for achieving climate change

commitments. This means that initial rapid decarbonisation is important for successfully delivering climate change commitment and the rate of emissions reduction year-on-year will matter more in limiting climate change than meeting an identified net zero carbon target date.

Figure B-5 – Target decarbonisation pathways for Wiltshire (kT CO₂e, indexed, 2018 = 100)



The top three parallel lines represent the lower and upper bounds and midpoint of the broad decarbonisation pathway for surface transport shown in the DfT's Transport Decarbonisation Plan (TDP)⁴⁷ and the Government's subsequent Net Zero Strategy⁴⁸.

The next trajectory shows the Balanced Pathway to net zero carbon by 2050 from the Sixth Carbon Budget report, which was published by the Climate Change Committee (CCC) in December 2020⁴⁹. It represents the surface transport component of the CCC's most recent view of a feasible and balanced pathway to achieving the UK's net zero carbon and intermediate emissions reductions targets and budgets and align with the CCC's view of the UK's contribution to the Paris Agreement commitments⁵⁰.

⁴⁷ DfT (2021) Decarbonising Transport: a better, greener Britain. Available at: [Transport decarbonisation plan - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/95444/transport-decarbonisation-plan.pdf).

⁴⁸ BEIS and Department for Energy Security and Net Zero (2022) Net Zero Strategy: Build Back Greener. Available at: [Net Zero Strategy: Build Back Greener - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/95444/net-zero-strategy-build-back-greener.pdf) The figures shown in the graph are taken from the supporting data provided with the report which provided data for the lines annually to 2037 and then for 2050 – the figures for 2038 to 2049 have been estimated on the assumption of a steady annual rate of decrease in emissions.

⁴⁹ Climate Change Committee (CCC) (2020) The Sixth Carbon Budget. Available at: [Sixth Carbon Budget - Climate Change Committee \(theccc.org.uk\)](https://www.theccc.org.uk/publications/sixth-carbon-budget/)

⁵⁰ Note that the CCC Balanced Pathway represents all sector emissions pathway and follows a similar path but with a slightly less steep reduction in emissions to 2040.

The next dotted line shows the High Ambition Pathway identified by Anthesis in their Carbon Emissions Baselines and Reductions Pathways work for Wiltshire⁵¹. Rather than being based on the allocation of an identified carbon budget, this pathway is based on the maximum emissions reductions that were judged to be feasible, based on an assumption that action is not hindered by any funding, policy, skills or other local constraints.

The lowest, solid green line shows the most ambitious decarbonisation pathway, which represents the view of academic experts at the Tyndall Centre for Climate Change Research on the rate of decarbonisation required to stay within Wiltshire's remaining carbon budget⁵². The budget covers all emitting sectors and reflects their estimate of Wiltshire's proportionate share of a remaining global budget of carbon emissions. The global budget has been estimated as the level that would limit cumulative global emissions enough to achieve a high probability of meeting the global target of limiting temperature increase to 1.5°C from pre-industrial times. The Tyndall Centre take a more stringent view than the CCC on the remaining budget allocated to countries such as the UK, after taking into account issues such as international equity and the need to avoid over reliance on future carbon removals technology⁵³. This leads to a lower budget for the UK requiring a more rapid decarbonisation pathway as shown in Figure B-5.

Both the Tyndall Centre and Anthesis pathways relate to all-sector emissions (reflecting the combined effect of emissions from transport and other energy using sectors, such as buildings). The TDP and CCC pathways are both for surface transport emissions only.

All of the pathways show rapid initial decarbonisation in order to meet identified targets and budgets. The TDP range upper and lower bounds indicate that between approximately a 65% and 75% reduction in emissions would be required between 2019 and 2035. The midpoint of the range indicates a reduction of approximately 70% over the same time period. The CCC Balanced Pathway indicates a similar reduction of 70% whilst the High Ambition Pathway indicates a 60% reduction. The Tyndall Centre pathway is considerably more ambitious indicating a required emission reduction of nearly 90% over the 2019 to 2035 timeframe.

B.6.2. Projected emissions and the emissions gap

Following a carbon workshop with Wiltshire Council officers⁵⁴, the decision was made to use the midpoint of the TDP pathway to provide an understanding of the scale of the emissions gap between projected annual emissions and the levels required to meet decarbonisation commitments. This selection was in line with the approach suggested in the draft DfT QCR guidance for local authorities without a locally derived pathway. Although the Anthesis pathway was developed for Wiltshire, it is now considered out of date due to the rapid pace of development in the field and work is likely to be undertaken to update the analysis to reflect developments since the pathways were originally produced.

Figure B-6 presents the TDP pathway midpoint alongside the five baseline projections described above to illustrate the scale of the emissions gap between projected emissions and the potential pathway that needs to be followed to meet decarbonisation commitments.

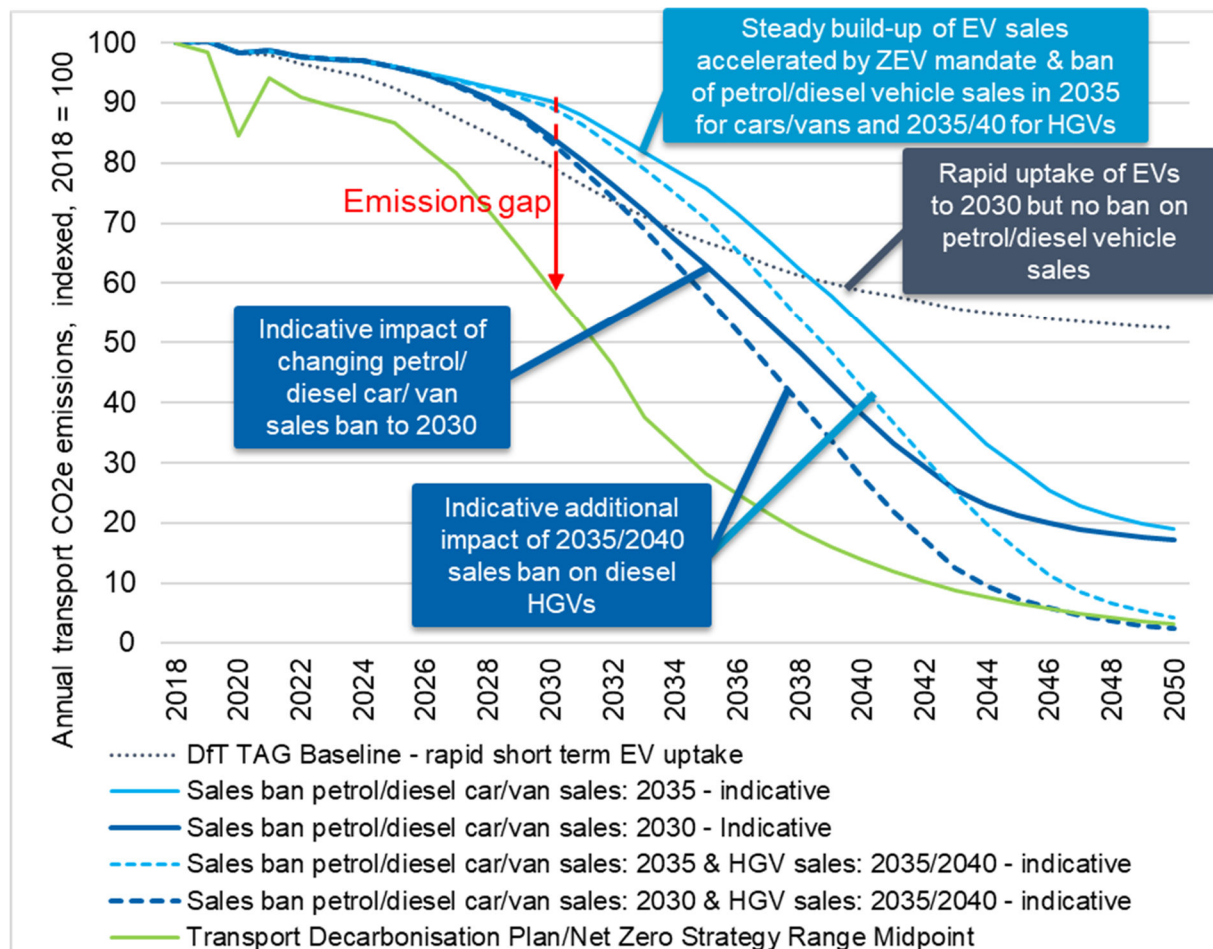
⁵¹ Anthesis, 2022, Wiltshire Carbon Emissions Baselines and Reductions Pathways

⁵² Tyndall Centre for Climate Change Research (undated) Available at: [Tyndall Carbon Budget Reports \(manchester.ac.uk\)](https://www.tyndall.ac.uk/reports).

⁵³ For instance: Anderson, K. et al. (2020) A factor of two: how the mitigation plans of 'climate progressive' nations fall far short of Paris-compliant pathways, Climate Policy. Vol 20.

⁵⁴ The workshop was attended by relevant members of the Climate and Environment, Sustainable Transport and Highways teams at Wiltshire Council.

Figure B-6 – Illustrative emissions gap for Wiltshire



The comparison between the baselines and pathway in Figure B-6 highlights that, even with ambitious national action on moving to a zero emissions fleet in the baseline projections, a substantial gap remains between the projected emissions in the baseline scenarios and the target TDP pathway.

As outlined above, the emissions gap is important because it represents additional emissions being released each year beyond the target pathway emissions level, adding to the cumulative total of emissions released. The emissions gap (illustrated by the red arrow) therefore needs to be closed if Wiltshire is to make its contribution to national carbon reduction targets. This would involve a further reduction in emissions from the baselines of approximately 30% in 2030 and 55% in 2035 (as discussed further in Section 2.2.4 of the main text).

Annex C. Assumptions informing carbon reduction estimate

Table C-1 provides further detail on the basis for the assumptions informing the carbon reduction estimate, as set out in Table 3-5 of the main report.

The estimate drew on a range of inputs including:

- The baseline transport emissions projections for Wiltshire, developed using data from the Wiltshire Traffic Model, as outlined in Section 2.2.4 and Annex B.
- Details of current and projected travel levels and patterns from sources including DfT Bus Statistics⁵⁵, Office for Road and Rail station usage statistics⁵⁶, DfT Cycling Statistics⁵⁷, DfT traffic estimates⁵⁸, DfT TEMPRO software⁵⁹ and the National Travel Survey.⁶⁰
- Parameters and values from sources including the DfT Transport Analysis Guidance databook⁶¹, the Propensity to Cycle Tool⁶² and DESNZ Greenhouse Gas Conversion Factors 2024.⁶³

Table C-1 – Assumptions informing estimated carbon reduction

Measure	Assumption	Comment/basis for assumption
Avoid		
	Up to 5% reduction in car travel maintained due to increased online activity and localisation of activity	The 5% reduction equates to retaining approximately half of the reduction in car travel still seen in 2023 relative to projected baseline before the impacts of COVID-19. Car traffic levels in Wiltshire remain over 8% below 2019 levels but have grown rapidly between 2021 and 2023 and, if growth trends continued, would rejoin previous projections (including growth) by approximately 2028. The reduction in car travel is assumed to be primarily as a result of reduced trip numbers

⁵⁵ DfT (2024) Bus statistics. Table Bus01e: Passenger journeys on local bus services by local authority. Available at: [Bus statistics data tables - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/bus-statistics-data-tables)

⁵⁶ Office for Road and Rail (2024) Table 1415: Time series of passengers' entries exits and interchanges by stations. Available at [Estimates of station usage | ORR Data Portal](https://www.gov.uk/government/statistics/estimates-of-station-usage)

⁵⁷ DfT (2024), Walking and Cycling Statistics. Available at: [Walking and cycling statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/walking-and-cycling-statistics)

⁵⁸ DfT (2024), Traffic Estimates Table TRA8905: Motor vehicle traffic by local authority and selected vehicle type in Great Britain [Road traffic estimates \(TRA\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/road-traffic-estimates)

⁵⁹ DfT Trip End Model Presentation Programme (TEMPRO 8.1). Available at: [Trip End Model Presentation Program \(TEMPRO\) download - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/trip-end-model-presentation-programme)

⁶⁰ DfT (2023) National Travel Survey 2022. Available at: [National Travel Survey - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/national-travel-survey)

⁶¹ DfT (2024) Transport Analysis Guidance Databook: May 2024. Available at: [Transport analysis guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/transport-analysis-guidance)

⁶² Propensity to cycle tool Available at: [The Propensity to Cycle Tool About Page \(pct.bike\)](https://pct.bike). Source: Lovelace, R., Goodman, A., Aldred, R., Berkoff, N., Abbas, A., Woodcock, J. (2017) The Propensity to Cycle Tool: An open-source online system for sustainable transport planning. Journal of Transport and Land Use. 10:1, 505–528.

⁶³ DESNZ (2024) Greenhouse gas reporting: conversion factors. Available at. [Greenhouse gas reporting: conversion factors 2024 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/greenhouse-gas-reporting-conversion-factors-2024)

Measure	Assumption	Comment/basis for assumption
		due to more online activity resulting from digital trends accelerated by COVID-19 restrictions, supported by some further localisation of activity causing further reduction in levels of travel through encouraging shorter, combined trips (also supporting mode shift). For instance, a further 5% reduction in car travel could be achieved through an extra 5% of commuting, business and personal business car trips being avoided due to online alternatives and approximately 10% of shopping, personal business, leisure and escort car trips reducing by approximately one third in length as a result of more local activity.
Shift 		
Bus	10% increase by 2030	BSIP 2021 target for 2030
	Baseline bus passenger miles	DfT Bus Statistics providing bus passenger miles in Wiltshire for 2019 to 2023 and DfT TEMPRO 8.1 Core scenario providing trip growth rates for 2030 and 2035 for Wiltshire for bus.
	Proportion of additional bus passenger miles assumed to switch from car driver trips	35% - based on the DfT TAG diversion factors from car driver for bus (TAG A5.4.6)
Rail	10% increase by 2030	Equivalent to bus
	Baseline rail passenger miles	ORR station usage statistics for 2019 to 2023 for Wiltshire stations and assumption of average trip length within county of approximately 20 miles (based on analysis of the busiest movements). DfT TEMPRO 8.1 Core scenario providing trip growth rates for 2030 for Wiltshire for rail.
	Proportion of additional rail passenger miles assumed to switch from car driver trips	25% - based on the DfT TAG diversion factors from car driver for rail (TAG A5.4.6).
Cycle	10% increase by 2030	Equivalent to bus
	Baseline cycle miles	Propensity to Cycle Tool estimates for Wiltshire for commuting trips, uplifted for relative levels of cycling for different purposes derived from National Travel Survey cycling data

Measure	Assumption	Comment/basis for assumption
	Proportion of additional cycle passenger miles assumed to switch from car driver trips	65% - based on diversion rates assumed in the PCT for commuting and NTS based adjustments for other purposes
Car sharing	2% to 5% increase in the proportion of car driver trips that are shared by 2030	Assumptions on potential scale of growth in car sharing
	Current levels of single occupancy car driver trips	~ 65% sourced from National Travel Survey table NTS0905
Freight mode shift	1% reduction in van emissions due to last mile/first mile mode shift offsetting increasing van deliveries in 2030.	Assumptions on potential scale of impact recognising the small proportion of emissions in scope for LTP4 measures
Improve		
	More efficient driving for 5% of vehicle miles as a result of eco driving and targeted network management improvements by 2030.	Assumptions on potential pace and scale of uptake of efficient driving and network management measures
	Scale of impact of eco driving measures and more efficient driving conditions on emissions levels	~8% long term reduction in vehicle emissions based on estimate and evidence set out in CCC Sixth Carbon budget report ⁶⁴
	Acceleration of EV uptake by approximately 6 months to 1 year relative to national action by 2030	~10% to 15% increase in proportion of car and LGV miles by EV in 2030 equivalent to 20% to 30% of the difference between Central and High EV uptake scenarios identified by the Society of Motor Manufacturers and Traders ⁶⁵ in 2030
	Emissions impact of change in vehicle fleet composition	Carbon spreadsheet model established to estimate projected carbon baseline and gap.

⁶⁴ CCC (2020) Sixth Carbon Budget Report. Available at: [Sixth Carbon Budget - Climate Change Committee \(theccc.org.uk\)](https://www.thecc.org.uk/sixth-carbon-budget-report).

⁶⁵ SMMT (2021) New Car Market and Parc Outlook to 2035. Available at: [SMMT new car market and parc outlook to 2035, by powertrain - SMMT](https://www.smmt.co.uk/new-car-market-and-parc-outlook-to-2035).

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The logo graphic for Wiltshire Council, consisting of two parallel, slightly curved white lines.

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5. Appendix 5: Landscape

Appendix 5.1 – Landscape and Visual Impact Assessment (LVIA)

Chicklade Solar Farm, Wiltshire
Landscape and Visual Impact Assessment (LVIA)

January 2026

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Issue/Revision	Date	Author	Checked By
P1	26/01/26	DE	AS
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Appendices

Appendix 1 – Methodology

Appendix 2 – Diagrams

Appendix 3 – Photographs

1. Introduction

- 1.1 This LVIA report has been prepared by LHC Design, on behalf of Enviromena Project Management UK Ltd, in relation to a planning application for a solar farm with associated infrastructure and landscaping on land to the north of the A303 road, approximately 600m west of the village of Chicklade in Wiltshire.
- 1.2 The report has been undertaken in accordance with the Landscape Institute's Guidelines for Landscape and Visual Impact Assessment (Third Edition 2013).
- 1.3 The proposed site comprises of a single field currently in arable use. Key changes to the site resulting from the proposal include:
 - New vehicle access from an adjacent field to the south and connecting to an existing vehicular junction with the A303, shared with Chicklade Service Station.
 - Stock proof fencing 2m in height, surrounding the Solar PV Arrays.
 - Solar PV Modules (located in the southern portion of the field only) offset from field boundaries and with transformer stations and CCTV located as required and shown on the site layout plan.
 - New mixed native hedgerows, wildflower and woodland tree planting, reinforcement of existing gappy hedgerow boundaries in the south and east, orchard trees in the south west and new lowland meadow in the north.
- 1.4 This LVIA should be read in conjunction with the planning application drawings and especially DWG: 25138-LHC-00-XX-DR-L-9401 Landscape Framework Plan.

2. Methodology

- 2.1 The methodology used in the preparation of this LVIA is in accordance with the published Guidelines for Landscape and Visual Impact Assessment (3rd. Ed.2013 GLVIA) published by the Landscape Institute and the Institute for Environmental Management and Assessment. The methodology and criteria used for assessment are detailed in Appendix 1.
- 2.2 The assessment approach first examines the baseline conditions, considering the national and local policy framework, site-specific factors, and relevant published landscape character assessments. These conditions are documented below and illustrated in the diagrams provided in Appendix 2.
- 2.3 Landscape and visual impact assessment is undertaken by combining judgements on the sensitivity of the receiving landscape or visual receptors with those on the magnitude of the change proposed.
- 2.4 For the purposes of this study, discussions of landscape sensitivity have included consideration of landscape value, landscape condition and the susceptibility of the receiving landscape to the type and scale of the change proposed. Sensitivity is recorded on a scale of high, medium or low, with gradations between where necessary.
- 2.5 Visual sensitivity is assessed through consideration of the value of a particular view and the susceptibility to change of people experiencing the view. For example, a popular viewpoint experienced by people out walking in the countryside will be more sensitive to change than a view glimpsed through a gap in the hedgerow experienced by people travelling on a major trunk road.
- 2.6 Judgements on the scale of the change proposed, the duration of the effect and the geographical influence (extent) of the change are combined to assess the magnitude of landscape or visual effect. Magnitude of change is related to a scale of high to negligible. Effects are considered beneficial where they strengthen baseline characteristics or contribute to landscape strategies and policies and adverse where they result in the dilution of positive baseline characteristics or work against strategies. Neutral effects have neither positive nor negative effects on character and no impact on landscape strategies.
- 2.7 The attached viewpoint photographs (Appendix 3) have been presented in line with the Landscape Institute Technical Guidance Note 6/19 "Visual Representation of Development Proposals". The guidance proposes a proportionate approach to the complexity of visualisation presented, based upon factors such as the scale and complexity of development proposal, the sensitivity of the receptor and the context for the proposal. The proposal assessed here is for a solar farm approximately 3.01ha in size, within a red line boundary of 12.29ha, including associated infrastructure plus proposed landscape features. In this case, type 1 visualisations have been considered appropriate (annotated photographs presented at 100% scaling).

3. Study Area

- 3.1 The proposed site for the new solar farm with associated servicing and landscaping is located on arable farmland just off the A303 road, approximately 600m west of the village of Chicklade in Wiltshire.
- 3.2 A 5km radius was used to establish the study area for the LVIA (Appendix 2, Figure 1). Solar arrays with a height of approximately 2.5m from existing ground levels were used to test the potential Zone of Theoretical Visibility (ZTV), shown on Figure 2. This was produced using Digital Surface Modelling (DSM) information which includes trees, hedges, buildings and other structures to produce an estimate for the potential visual effects of the development. As can be seen the expected visibility is constrained due to the enclosed valley location, with the majority of predicted visibility located within a few kilometres of the site. Therefore, a revised study area radius of 3km has been used (shown in Figure 3) which shows the local topography constraining potential visibility close to the site, with a single outlying visual receptor located approximately 4.2km to the east. This visual receptor has been included within the study (see Figure 6).
- 3.3 The proposals and entire study area lie within National Character Area (NCA) 132 – Salisbury Plain and West Wiltshire Downs. The NCA description notes that Cranborne Chase and West Wiltshire Downs to the south is designated as a National Landscape (formally Area of Outstanding Natural Beauty, AONB) for its *rich chalk down, whaleback ridges, wooded valleys and deeply rural, agricultural character and rich archaeological resource*. It is noted for a sense of *remoteness and generally dark skies*.
- 3.4 The site sits within local landscape character area 2A West Wiltshire Downs Open Chalk Downland. The Heritage Lottery funded Cranborne Chase and Chalke Valley Landscape Partnership scheme has supported a more detailed Landscape Assessment (Sept 2024) of this part of the Cranborne Chase National Landscape. This contains fourteen local landscape character areas, which nest within the broader character areas of the earlier assessment. The site, and entire ZTV, lies within the landscape character type ‘Wooded Downland’ (Refer to Figures 4 & 5, Appendix 2).

4. Baseline Conditions

- 4.1 Relevant national and local planning policies, including the strategic objectives in the Wiltshire Core Strategy Development Plan (2015) and the Cranborne Chase National Landscape and Wiltshire Landscape Character Assessments are highlighted below. In considering the landscape and visual impacts of the proposed development, this LVIA report will refer to these and identify whether the proposals meet the requirements of the relevant policies.

National Planning Policy Framework, NPPF (2024)

- 4.2 The following NPPF paragraphs are applicable to the consideration of the landscape and visual appraisal of the proposal:

Paragraph 165

To help increase the use and supply of renewable and low carbon energy and heat, plans should:

- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts);*
- b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and*
- c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.*

Paragraph 187

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;*
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise*

pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

The Wiltshire Core Strategy (Adopted January 2015) sets out the approach to managing planning development in the district.

4.3 The following local plan policies are considered to be relevant to the consideration of the landscape and visual impacts of the proposal:

The Core Strategy provides a spatial expression of the Wiltshire Community Plan 2011-2026: People, places and promises, and will be focused on delivering the three overarching priorities and the 17 key objectives of the Community Plan. The overarching priorities are to help build and protect resilient communities, through:

- creating an economy that is fit for the future*
- reducing disadvantage and inequalities*
- tackling the causes and effects of climate change.”*

4.4 Core Policy 42 Standalone renewable energy installations

Proposals for standalone renewable energy schemes will be supported subject to satisfactory resolution of all site specific constraints. In particular, proposals will need to demonstrate how impacts on the following factors have been satisfactorily assessed, including any cumulative effects, and taken into account:

i. The landscape, particularly in and around AONBs

ii. The Western Wiltshire Green Belt

iii. The New Forest National Park

iv. Biodiversity

v. The historic environment including the Stonehenge and Avebury World Heritage Site and its setting

vi. Use of the local transport network

vii. Residential amenity, including noise, odour, visual amenity and safety

viii. Best and most versatile agricultural land.

4.5 Core Policy 51 Landscape

Development should protect, conserve and where possible enhance landscape character and must not have a harmful impact upon landscape character, while any negative impacts must be mitigated as far as possible through sensitive design and landscape measures. Proposals should be informed by and sympathetic to the distinctive character areas identified in the relevant Landscape Character Assessment(s) and any other relevant assessments and studies. In particular, proposals will need to demonstrate that the following aspects of

landscape character have been conserved and where possible enhanced through sensitive design, landscape mitigation and enhancement measures:

- i. The locally distinctive pattern and species composition of natural features such as trees, hedgerows, woodland, field boundaries, watercourses and waterbodies.*
- ii. The locally distinctive character of settlements and their landscape settings.*
- iii. The separate identity of settlements and the transition between man-made and natural landscapes at the urban fringe.*
- iv. Visually sensitive skylines, soils, geological and topographical features.*
- v. Landscape features of cultural, historic and heritage value.*
- vi. Important views and visual amenity.*
- vii. Tranquillity and the need to protect against intrusion from light pollution, noise, and motion.*
- viii. Landscape functions including places to live, work, relax and recreate.*
- ix. Special qualities of Areas of Outstanding Natural Beauty (AONBs) and the New Forest National Park, where great weight will be afforded to conserving and enhancing landscapes and scenic beauty.*

Proposals for development within or affecting the Areas of Outstanding Natural Beauty (AONBs), New Forest National Park (NFNP) or Stonehenge and Avebury World Heritage Site (WHS) shall demonstrate that they have taken account of the objectives, policies and actions set out in the relevant Management Plans for these areas. Proposals for development outside of an AONB that is sufficiently prominent (in terms of its siting or scale) to have an impact on the area's special qualities (as set out in the relevant management plan), must also demonstrate that it would not adversely affect its setting.

Landscape Character and Sensitivity

- 4.6 The LVIA considers the effect of development on the characteristics of the site and its surroundings, and on the landscape character of the area. The assessment judges the degree to which the development integrates into the local landscape character. Landscape effects are judged against the landscape character and management objectives for the relevant landscape character areas.

The Site and Immediate Surroundings

- 4.7 The site comprises a single arable field located approximately 80-140m north of the A303 road, within a valley location. The field slopes gently upwards to the north and slopes downwards again in the north-east of the site, following the local rolling landscape characteristic. There are several commercial, agricultural and residential buildings to the south west, separating the site from the A303 road. The site is approximately 600m west of the small village of Chicklade. A close service station, between the site and the A303, is currently being redeveloped as a new electric vehicle charging service station. A public bridleway runs alongside the west boundary of the site, separated from it by a gappy hedgerow, which has recently been strengthened with new native hedge planting to create a continuous hedge. The other boundaries, similarly, have gappy hedgerows, although some new hedge planting is

evident. This provides the opportunity to strengthen hedgerows and create new ones as part of a landscape framework.

- 4.8 The site lies within a landscape characterised by a patchwork of arable farmland and pasture. Fields are generally enclosed by hedgerows of low condition, interspersed with groups of trees and areas of woodland, predominantly located on ridges or along the A303 transport corridor. In the immediate vicinity of the site, field boundary hedgerows are fragmented or absent in places, presenting opportunities for landscape enhancement. The site sits within a relatively limited visual envelope within its valley location, with visibility largely constrained by ridges to the north, west and south. The exception to this is in the east, where longer distance views are possible, looking along the valley and transport corridor.
- 4.9 The village of Chicklade lies east of the site and comprises an attractive cluster of dwellings and farm buildings set within a dense framework of mature trees and hedgerows. Properties on the western edge of the village have some open views towards the site, although the village's Grade II Listed buildings have no intervisibility of the site due to location and vegetation. The landscape character of Chicklade is adversely affected by the presence of the busy A303 corridor, which forms a dominant and incongruous feature in the surrounding landscape. Associated infrastructure, including overhead telecommunications lines and road signs, further detract from landscape quality and contributes to a significant localised reduction in tranquillity and visual sensitivity.

National Character Areas

- 4.10 The site is situated wholly within the Salisbury Plain and West Wiltshire Downs National Character Area (NCA) which is summarised as a *"sparsely settled, predominantly agricultural area with a strong sense of remoteness and openness. The dominant element in the landscape – apart from the expansive sky – is the gently rolling chalk downland. Around one third of this NCA is also designated as Area of Outstanding Natural Beauty. The fields here are seemingly endless. With hedgerows rare, they often lack clearly visible boundaries. Most of the NCA lies within the county of Wiltshire. The NCA contains significant historical and cultural assets, including a wealth of buried and above-ground archaeological remains of international importance, and many historic houses and estates. There is a strong sense of historical continuity underpinned by the prehistoric landscape features identified in the Stonehenge and Avebury World Heritage Site at Stonehenge in the southern part of the Plain, along with many other prehistoric monuments."*
- 4.11 The NCA lists four statements of environmental opportunity which are: *protection and enhancement of chalk grassland to support biodiversity, improving the river system, conserving the rich historic and archaeological resource and protecting the agriculture interest, while working in harmony with the nationally recognised and distinctive character of the landscape, its natural beauty and scenic quality.*

Local Landscape Character Types (LCTs)

- 4.12 **The Wiltshire Landscape Character Assessment** characterises the county by local character type profiles, identifying 16 different typologies in total. The more recent Cranborne Chase National Landscape has identified fourteen Local Landscape Character Areas (2024), which nest within the broader character areas of the earlier Wiltshire assessment.

- 4.13 The proposed development site, and all the predicted visibility, lies wholly within the **Open Chalk Downland** Landscape Character Type (LCT), and in particular the **West Wiltshire Downs Open Chalk Downland** Landscape Character Area (LCA).

Key Characteristics of the West Wiltshire Downs Open Chalk Downland LCA

- *A large-scale landscape of broad rolling hills and undulating land separated by dry river valleys.*
- *Dominated by an Upper Chalk surface geology with drift clay with flints capping on higher ground.*
- *Straight-sided fields representing late 18th/early 19th century Parliamentary enclosure, with large-scale fields resulting from 20th century boundary loss.*
- *Large-scale agricultural landscape with open skies and long views*
- *Settlement pattern comprising small villages, dispersed hamlets and isolated farmsteads.*
- *Villages tend to be located on the south facing slopes where the landform offers increased shelter.*
- *Broadleaved copses and clumps (round stands) are eye catching features on the hilltops.*
- *Isolated Neolithic long barrow burial monuments, and Bronze Age round barrows are visible in this ancient landscape.*
- *Series of Iron Age hillforts and defended enclosures including the localised preserved prehistoric/Romano-British landscapes at White Sheet Hill*
- *Prehistoric/Romano-British landscape and cross-ridge dykes.*
- *The Roman road between Old Sarum and the Mendips follows the top of the downs.*
- *Fast moving transport corridors, A303 and A350, running across and through the landform in cuttings and on embankments.*

- 4.14 Management Objectives for the West Wiltshire Downs Open Chalk Downland LCA are:

- *Conserve the open character of the downs and retain the simple land cover.*
- *Encourage restoration of chalk grassland particularly in areas that are connected to existing SSSI sites. Habitats should be managed and enhanced in line with the emerging Cranborne Chase Nature Recovery Plan.*
- *Promote appropriate management of arable farmland to create a wildlife-rich habitat supporting farmland birds. This will include retaining areas of fallow land and maintaining an unploughed margin around fields plus management of hedgerows.*
- *Discourage unsympathetic ribbon development and associated planting (such as Leylandii hedges) along transport corridors in order to conserve open views and safeguard the character of the built environment.*
- *Manage the distinctive deciduous woodland clumps and consider a programme of replanting to maintain these as features. Tree and hedgerow planting should follow the key principles and guidance set out in the Cranborne Chase 'Right Tree, Right Place' guidance document.*
- *Ensure that the development of tall structures, such as communication masts and wind energy developments, are in scale with the landscape.*
- *Ensure development of any structures do not threaten the setting of important archaeological earthwork features.*

Cranborne Chase National Landscape (formally Area of Outstanding Natural Beauty, AONB)

- 4.15 Cranborne Chase is a National Landscape, a designated Area of Outstanding Natural Beauty, and covers 380 square miles of countryside, overlapping the boundaries of Wiltshire, Dorset, Hampshire and Somerset. The long-distance footpaths of the Wessex Ridgeway, Jubilee Trail and the Monarch's Way all criss-cross the National Landscape.
- 4.16 The Cranborne Chase National Landscape Management Plan (2019-2024) presents objectives and policies that partners can apply to help conserve and enhance this nationally important landscape.
- 4.17 It is stated that the *"primary purpose of AONB designation is 'conserving and enhancing the natural beauty of the area', but that 'account should be taken of the needs of agriculture, forestry and other rural industries and of the economic and social needs of local communities. Particular regard should be paid to promoting sustainable forms of economic and social development that in themselves conserve and enhance the environment.'"*
- 4.18 The Management Plan also notes that *"high levels of tranquillity comprise important elements of the natural beauty of the AONB"* and *"views across and along these landscapes can be wide and expansive **whilst in the valleys they are more focussed and channelled. Unspoilt and panoramic views are characteristics of this AONB.**"*
- 4.19 Section 5 outlines that the AONB document is not prepared in isolation and there are other factors which have influence. Some notable items include:
- "Climate change mitigation describes measures or actions aimed at reducing the long-term risk and hazards of climate change. Climate change adaptation describes measures or actions that help individuals, groups and natural systems to prepare for and respond to changes in the climate. Alongside other organisations and individuals, the AONB Partnership will seek to build resilience and will **support and promote mitigation and adaptation measures** wherever practicable." (Paragraph 5.18).*
- The landscapes of the AONB provide us with many 'goods and services' these need sustaining. They range from measurable things, like fresh food, clean water, healthy soils, **sustainable energy** and clean air; and less easily defined benefits, such as inspiration, awareness, health and wellbeing, and;*
- 'Development that meets the needs of the present, without compromising the ability of future generations to meet their own needs'. This means that within this AONB, great weight is given to conserving and enhancing natural beauty. Development has to be **in the right location, at the right scale** and of the right design using the right materials. (Paragraph 5.45).*
- 4.20 Policy PT16, Renewable Energy Generation within the AONB says:
- Policy PT16 "Support renewable energy generation by technologies that integrate with the landscape character, are **neither visually intrusive to the AONB or its setting**, nor impair significant views to or from it, are not harmful to wildlife, and are **of an appropriate scale to their location and siting.**"*

Wiltshire Council Renewable Energy Study. Landscape Sensitivity Assessment (2023)

- 4.21 A 2023 Landscape Sensitivity Assessment categorises the Wiltshire landscape by local character area (according to the Wiltshire Landscape Character Assessment) with a rating for sensitivity of an area for solar (or wind) farm developments in general terms – i.e. without specific sites analysed. The introduction to this report describes this as follows:

*“1.2 This Landscape Sensitivity Assessment for wind energy and solar photovoltaic (PV) schemes provides judgements on the landscape sensitivity of different parts of Wiltshire to these forms of development. The findings of this study will allow the Council to **identify broad areas for renewable energy development and establish a local policy framework for such development, in line with the National Planning Policy Framework.**”*

- 4.22 The area which includes the proposed site has been assessed for sensitivity as level 1 – Greater landscape impact (from a scale of 1 – Greater to 5 – Lesser landscape impact).

Appendix A (User Guide) describes that:

*“A.9 Priority should be given to views from distances of **less than 3km** and from sensitive locations (e.g. residential areas, areas popular with visitors or for outdoor recreation where **views may be focussed on the landscape and recognised/iconic views**).”*

And sites should demonstrate how they enhance the landscape:

*“A.11 Enhancement aims to improve the character and quality of the landscape. It may take many forms, including **improved land management** or creation of new landscapes or features. **Landscape enhancement, as part of a proposal, will be looked upon favourably.**”*

- 4.23 The LVIA report will utilise the procedures for analysis listed within Appendix A and describe the perceived landscape and visual effects likely due to the site-specific proposals within Sections 6 (Landscape) and 7 (Visual).

Heritage Assets

- 4.24 There are several historic assets within the study area, including Scheduled Monuments, Conservation Areas and Listed Buildings. These are shown on Figure 4, Appendix 2 and those with potential relevance to the proposed development described below.
- 4.25 The closest historic asset to the site is the scheduled monument, an historic Bowl Barrow located approximately 700m away from the site to the south-west. From the Historic England website, bowl barrows are described as follows: *“Bowl barrows the most numerous form of round barrow, are funerary monuments dating from the Late Neolithic period to the Late Bronze Age.”* The text goes on to say that *“Often occupying prominent locations, they are a major historic element in the modern landscape and their considerable variation of form and longevity as a monument type provide important information on the diversity of beliefs and social organisations amongst early prehistoric communities. They are particularly representative of their period and a substantial proportion of surviving examples are considered worthy of protection”*. There is no predicted visibility between this scheduled monument and the proposed development, which was confirmed with a field visit. The scale of the proposals and lack of intervisibility will therefore not have any impact on the monument or its setting.

- 4.26 A number of other scheduled monuments are shown Figure 4 (Appendix 2). These are generally located over 2km away from the site in the west, north and north east and include an Earthwork enclosure in Penning Wood, a Scrubbed Oak enclosure and an Earthwork enclosure in Great Ridge wood and a Long and Oval barrow on Keysley Down. There is no visibility between these monuments and the site, so the proposed development will not have any impact on their settings.
- 4.27 A section of Roman Road on Pertwood Down is situated approximately 2.5km away north west of the site. There is no intervisibility between the site and this monument due to the undulating landscape, therefore the proposals will not have an impact on its setting.
- 4.28 Hindon village, approximately one mile south of the A303 has a conservation area covering a large part of the village centre which includes many Grade II listed buildings, including the Church of St John the Baptist. There is no predicted visibility between this area and the site, which was confirmed with a field visit. The proposals will not have any impact on this conservation area or the listed buildings within it.
- 4.29 There are several other listed buildings within the study area, dotted across the area, mainly to the north, west and south. There are three listed buildings within Chicklade village, the closest (Chicklade House, Grade II) approximately 700m away. The Grade II Church of All Saints Anglican Parish Church and the Burnett Monument in the Churchyard (Grade II) are situated a further 100m away to the east. All three buildings are set back from the A303 road with dense vegetation surrounding them. They have no visibility of the site, and their settings will not be adversely impacted by the proposals.

Visual Baseline

- 4.30 The LVIA considers the effect of development on identified visual receptors within the ZTV. The assessment makes judgements on the effect of the proposed development on these receptors based on their sensitivity and the likely magnitude of effect. Several receptors are located outside of the ZTV, close to long distance footpaths or historic assets, in order to confirm lack of visibility between them and the site.
- 4.31 Key receptor groups identified are:
- Users of main road A303 south of the site (Viewpoints, VPs 1, 2, 10)
 - Users of minor road, south east of the site (VP3)
 - Users of Public Right of Way (PROWs) and Restricted Byway south of the site (VPs 4, 5, 6, 7, 8)
 - Users of PROW bridleway on the western site boundary (VP 11)
 - Users of PROW bridleway north of the site (VP 12)
 - Users of PROW bridleways north east of the site (VPs 13, 14, 15, 16)
 - Users of PROW Monarch's Way long distance path (VPs 17, 20)
 - Users of PROW Wessex Ridgeway long distance path (VP 18)
 - Users of PROW bridleway south of the site (VP19)
- 4.32 Photographs from representative viewpoints were recorded on 11th December 2025 and 9th January 2026 and are shown in Appendix 3 with the impacts upon these receptor groups set out in Section 7 of this report.

- 4.33 The site is located on gently sloping farmland, on the side of a valley containing the busy A303 transport corridor. The boundaries feature gappy and varying quality hedges, many of which have been observed to be recently reinforced with new planting. There are agricultural, commercial and residential buildings nearby, and the A303 has associated telecommunications poles and wires and signage, leading to a sense of clutter and activity. Above the site, on rising slopes, arable fields give way to wooded areas and a greater sense of tranquillity and quiet. The small village of Chicklade is located east of the site and there are several public rights of way nearby, mostly public bridleways, with many appearing to have low or no use, and are difficult to use due to extremely busy road crossings, a lack of joined-up-ness and overgrown vegetation. The Monarch's Way and Wessex Ridgeway long distance footpaths pass through the local area.
- 4.34 The site's visibility is constrained by its location on low valley slopes, with wider views constrained by nearby ridges and clumps of woodland. The majority of the proposed development's visibility is situated well within 3km of the site, apart from longer views out towards the east along the transport corridor.

5. Site Proposals & Mitigation

- 5.1 The site proposals seek the delivery of a new solar PV farm upon an arable field, with associated deer proof stock fencing, access track and transformers. The landscape framework plan (DWG: 25138-LHC-00-XX-DR-L-9401) shows the proposed layout which includes new landscape features which will help to mitigate visual impact resulting from the changes and enhance ecological habitat.
- 5.2 The existing field currently has gappy hedge boundaries which will be planted with new native hedge planting to strengthen them. The solar PV panels will sit approximately 2.5m in height at their highest point, surrounded by a 2m high stock proof fence. The panels are located in the lower portion of the site, close to the A303 traffic corridor, Chicklade Service Station and several agricultural buildings adjacent to the south west corner of the site. Two new mixed native hedgerows will be planted along the north and south of the fenced off solar arrays, with the northern hedge line, to include hedgerow trees.
- 5.3 An area of native woodland will be planted to the east of the solar arrays which will create new habitat and help to mitigate views of the panels from public rights of way located on higher ground in the north east. Proposed wildflower grass will be sown in southern areas of the field, outside the fenced solar panel area. New orchard trees will be planted in the south west area of the site and lowland meadow is proposed in the north.

6 Landscape Effects

- 6.1 A combination of fieldwork and photography has been used to assess the scale of effect that the proposals are likely to have upon the important attributes of the existing landscape fabric and character within the site surroundings and study area and an assessment of whether the proposals accord with the main objectives of the affected landscape character areas and types.

- 6.2 The duration of change and extent of effect have been considered in order to assess the magnitude of the effect on landscape qualities, characteristics and designations. This in turn has informed the assessment of the effects, and judgements against these individual criteria used to reach an overall conclusion on the significance of these, and whether they have an adverse, beneficial, or neutral effect.

Site and Immediate Surroundings

- 6.3 The proposed development will introduce new boundary fencing, solar PV modules an associated transformer, CCTV posts, a new site entrance track and new native hedge and woodland planting which will significantly alter the current intensively farmed arable use.
- 6.4 The site is located within a rural setting, however one that is significantly impacted by the busy A303 transport corridor which has been observed with almost constant traffic flow, including many HGV vehicles, resulting in a significant level of noise and disturbance in the landscape. As it passes the site, the A303 runs along a valley with rising land to the north and the south. A commercial business, agricultural buildings and a couple of houses are situated next to the road and south west of the site. Chicklade Service Station is situated next to the road to the south of the site. This is currently undergoing redevelopment, and it is proposed that the solar access track will share the service station access. The small village of Chicklade is located approximately 600m east of the site, with most houses and a church located to the north of the road, the majority surrounded by trees, although some homes do have west facing views towards the site.
- 6.5 The farmed valley slopes, leading away from the transport corridor is characterised rolling pastoral and arable fields with some small clumps of woodland and a few isolated trees dotted across the landscape. Field boundaries are generally low in height and many are incomplete or have frequent gaps, leading to a sense of openness. Ridges to the north and south of the A303, form a barrier to long distance views, as is illustrated on the ZTV diagrams (Figures 2 and 3, Appendix 2).
- 6.6 Existing hedge boundaries around the site will be retained, apart from a gap in the southern hedge to create vehicular access to the development. Additional planting is proposed to reinforce the existing hedges, helping to create a continuous vegetated boundary. New hedge planting will connect existing hedges, and the proposed area of woodland planting will reflect the local landscape characteristics and help to visually enclose the site from views from the east.
- 6.7 The following features of the proposed development reflect the landscape character of the local area and will help with mitigation:
- New native hedges which connect to existing hedgerows and the northern hedge to include hedgerow trees.
 - Proposed solar PV modules are offset from existing retained hedges to maintain the legibility of field patterns and assist with hedgerow management.
 - Areas of wildflower meadow grass and new lowland meadow will enhance species diversity.

- New orchard tree planting will enhance biodiversity and soften views from the south west.
 - Existing field boundaries are enhanced with new hedge planting and tree planting.
 - An area of new woodland will enhance ecology and reflects local landscape character.
- 6.8 The proposals will result in a change of land use, however the ecological and landscape assets within the site are to be enhanced. The nature of the proposed development will retain the current levels of landscape tranquillity once constructed. The existing quality of the site and immediate surroundings has been assessed as medium to low (Table 1, Appendix 1). There are few landscape elements intact and in good repair and there are many detracting elements evident.
- 6.9 The landscape value is concerned with the relative value that is attached to different landscapes. The site and immediate surrounding landscape value is assessed as high, based on the criteria shown in Table 2, Appendix 1. The site is located within a Nationally recognised landscape, despite its location close to the transport corridor and associated detracting elements from this. The site is in use for intensive arable farming with low quality hedgerows, offering potential for improvement.
- 6.10 The proposed development involves low impact construction meaning that landscape elements will overall not be lost and there is a moderate level of containment due to topography and vegetation, plus the character is noticeably influenced by some detracting features. The site and immediate surroundings is therefore judged to have a medium level of ability to accept the type of development proposed and there are opportunities for mitigation. Combining assessments of quality, value and susceptibility to change, results in a landscape sensitivity of medium. This is the degree to which this particular landscape area can accommodate change without unacceptable detrimental effects on its character.
- 6.11 The scale of landscape effect on the site and immediate surroundings resulting from the proposed development is judged as large, due to the proposals describing a fundamental change to the baseline situation. The field boundaries will remain, with enhancements, however the introduction of solar panels and new fencing will change the site considerably. The duration of effect is long term and the extent of effect is localised (limited to the site and surroundings up to approximately 2km). The magnitude of effect is determined as high.
- 6.12 Some of the changes resulting from the development will have an adverse effect on the landscape character of the site due to new fencing, solar modules, a new site entrance track and transformers on a site currently without any structures. Mitigation design measures include new hedgerows, enhancement of existing hedgerows, new woodland planting, new orchard tree planting and meadow seeding. Combining the magnitude of effect with existing quality and sensitivity, results in an overall significance of landscape effect upon the site and immediate surroundings of major to moderate adverse.

Landscape Character Areas

- 6.13 The site is located within National Character Area (NCA) 132 – Salisbury Plain and West Wiltshire Downs. The main characteristics of this NCA are a sparsely settled landscape with a strong sense of remoteness and gently rolling chalk downland. The area has a strong sense of

historical continuity with many prehistoric monuments. Noted opportunities within the NCA include protection and enhancement of chalk grassland, conservation of the rich historic resource and protection of the agricultural interest in harmony with the character and natural beauty of the landscape.

- 6.14 The proposals include the retention of existing hedgerows which will be strengthened with new native planting. The solar array will be a physically low impact, temporary intervention within the landscape, albeit long term. There would be loss of part of an arable field, however new hedges and woodland and orchard planting forms part of the mitigation and integration. The location of the site, close to existing busy road infrastructure and nearby buildings, forms part of the mitigating factors for the site, avoiding more tranquil and popular and picturesque rural landscapes within this NCA (and National Landscape).
- 6.15 The proposed development alters the site, but within the NCA the scale of change would be small, much of it positive, offering landscape enhancement to improve existing assets, and without adversely impacting the opportunities and objectives set out for the NCA.
- 6.16 The quality of the NCA is assessed as medium to high as the much of the character demonstrating landscape elements appear intact and good repair. The value is national scale, therefore rated high, and the receptor has a medium level of ability to accept the type of development proposed, with some good opportunities for mitigation.
- 6.17 The scale of change on the NCA is small, long term and the effect would be seen and experienced within an intermediate (approx. 2-4km) area. The magnitude of effect is determined by combining the scale, duration and extent of effect, in this case providing a result of low. The significance of effect upon the NCA (magnitude combined with sensitivity) is overall slight to moderate adverse.

Cranborne Chase National Landscape and associated Local Landscape Character Area

- 6.18 The site is located within the Cranborne Chase National Landscape, a designated Area of Outstanding Natural Beauty. The National Landscape Character Assessment defines the local area as the West Wiltshire Downs Open Chalk Downland which covers much of the same area as the Cranborne Chase and West Wiltshire Downs Wooded Downland in the Wiltshire Landscape Assessment (2005), so these will be treated as one.
- 6.19 Key characteristics listed in the Cranborne Chase National Landscape Assessment include *'large-scale landscape of broad, rolling hills and undulating land, divided by dry river valleys.'* It is *'predominantly an agricultural landscape, characterised by open skies and long-distance views.'* *'The settlement pattern consists of small villages located where the landform provides natural shelter, while copses and clumps of woodland are a feature on hilltops. Fast-moving transport corridors also run through the landscape, adversely influencing its character.'*
- 6.20 The sensitivity of this landscape receptor is classified as high, due to its national designation. The scale of change due to the proposals is small, in scale with its landscape setting and does not threaten the setting of important archaeological earthwork features. Field boundaries to be retained and enhanced with proposed landscape enhancements accord with the LCAs management objectives of *'creat[ing] a wildlife rich habitat – including management of*

hedgerows. The duration of change is long term and the extent over which the proposals will have effect is intermediate. The magnitude of change is therefore low with an overall significance of effect as moderate adverse.

7 Visual Effects

7.1 Approximate theoretical visibility was calculated within the study area using LiDAR data and based on the maximum height of the proposed solar PV modules (Figures 2 and 3, Appendix 2). Viewpoint locations were selected within the ZTV to provide an understanding about the potential visibility of the proposals and these are assessed based on the methodology laid out in Appendix 1. Photograph locations are shown in Figure 6, Appendix 2. Publicly accessible land with predicted visibility was visited in order to complete the photography. Viewpoint photographs are shown in Appendix 3.

7.2 Judgements about the likely residual impact upon visual receptors is provided in this section. The visibility, scale and massing of the proposals is assessed taking account of the mitigation measures and landscape proposals.

7.3 The assessment of visual effects has been consolidated into the following visual receptor groups:

- Users of main road A303 south of the site (Viewpoints, VPs 1, 2, 10)
- Users of minor road, south east of the site (VP3)
- Users of Public Right of Way (PROWs) and Restricted Byway, south of the site (VPs 4, 5, 6, 7, 8)
- Users of PROW bridleway on the western site boundary (VP 11)
- Users of PROW bridleway north of the site (VP 12)
- Users of PROW bridleways north east of the site (VPs 13, 14, 15, 16)
- Users of PROW Monarch's Way long distance path (VPs 17, 20)
- Users of PROW Wessex Ridgeway long distance path (VP 18)
- Users of PROW bridleway south of the site (VP19)

Users of main road A303 south of the site (VPs 1, 2, 10)

7.4 Viewpoint 1 shows the view from the pavement on the south side of the main A303 road passing through Chicklade, just east of the junction for Hindon Village. This busy road corridor is bordered by mature deciduous trees, road signs and telecommunications wires. Looking along the road corridor towards the site, fields prior to the site are visible, with the site itself forming a very small part of the view beyond.

7.5 Viewpoint 2 shows the view from the A303 near Chicklade Service Station, looking west. Road activity and associated infrastructure along the valley road corridor is a very large part of the view with constant traffic movement and telecommunications posts and wires. Views out to the surrounding landscape are constrained by landform, existing vegetation and existing development. The site is located behind a gappy hedge at a higher elevation than the road and the proposed reinforced boundary hedges will help to limit visibility of the proposals for road users further.

- 7.6 Viewpoint 10 shows the view from the southern side of the A303 road looking west opposite a commercial garage 'Classic Vehicle Restorers'. The view shows the road with trees and hedgerows to both sides and telecommunications posts and cables running along the north edge of the road. The garage buildings are located to the left of the view, with a vehicle access directly from the A303. Other houses and agricultural buildings to the rear of the vehicle repair building are not visible, nor is the site.
- 7.7 The sensitivity to visual change for users of roads south of the site is valued as medium.
- 7.8 The scale of the effect on these visual receptors resulting from the proposals is judged to be negligible (very hard to discern) to none. This stretch of road has constrained views out into the landscape, due to the local landform, plus activity and distracting elements. There are not extensive views across the landscape and the high level of activity at the roadside level, the proposed height of the development is relatively low and located behind hedgerows. The magnitude of change found by combining assessments of scale, duration and extent, is assessed to be negligible. This results in an overall significance of effect of minimal adverse.

Users of minor road to the south east of the site (VP3)

- 7.9 Viewpoint 3 is taken from a farm gate providing a view across fields towards the site, approximately 800m away. Much of the site is behind a clump of mature woodland with filtered views through the trees (especially during winter) into the site. The proposed development extends to the right of the trees allowing a direct view from this field gate. The majority of this stretch of road is bounded by tall hedgebanks, with many large trees within, meaning this field gateway is the sole location providing a view for road users.
- 7.10 Proposed mitigation measures include strengthening the field boundaries around the site to create continuous hedges and some hedgerow trees. Once established, this mitigation planting will help to soften the view of the development from this viewpoint. Views of the site from road users will be transient by nature and almost imperceptible by most road users. The scale of change due to the proposals, considering the lack of views from anywhere else along the road apart from this sole field gate is a small to minor alteration to features of the view, but with some discernible differences. Duration is long term and the extent of effect is limited. This results in magnitude of effect as negligible. The overall significance of effect is minimal adverse.

Users of Public Rights of Way (PROWs) and Restricted Byway south of the site (VPs 4, 5, 6, 7, 8)

- 7.11 Viewpoints 4, 5, 6, 7 and 8 represent users of the public bridleway and Ox Drove restricted byway on a ridge to the south of the site and the A303 road. The majority of this track is bounded to both sides by dense hedgerow and trees, which offers little or no views though it, even during winter months, when site visits were undertaken. Despite this, there are several gaps at field entrances and a few gaps in the otherwise dense planting. Several photographs taken along this route are included to illustrate differing views along it.
- 7.12 Viewpoint 4 shows one such gap at a field entrance, looking towards the site. The view includes the existing Chicklade Service Station on the A303 road. The remainder of the view

shows rolling fields with clumps of woodland dotted across the landscape. As well as the service station, there are several houses and farm buildings visible, and telecommunications posts and wires running across the landscape. Despite this viewpoint being on an elevated position and approximately 600m away from the road, constant traffic noise was audible, significantly reducing feelings of tranquillity.

- 7.13 Viewpoints 5 and 6 demonstrate glimpsed views towards the site at gaps in the otherwise dense vegetation bounding the track. The site can be seen from these viewpoints. The proposals would introduce a built element into this landscape, however only effecting a small part of the view. This track is not a named long-distance path (of which there are two nearby) nor does this section offer the best local views of the rural countryside nearby.
- 7.14 Viewpoints 7 and 8 demonstrate views at a field entrance and a large gap in a field boundary hedgerow from the public bridleway connecting to Ox Drove track. Both photographs include a clear view of the site, set amongst rolling fields and low hills with wooded summits. The traffic noise is evident from these locations reducing the tranquillity slightly.
- 7.15 The views from this public right of way are not identified as viewpoints of importance and there are many locations with countryside views nearby, offering greater tranquillity (the further away from the transport corridor they are). The sensitivity of users of PROW and restricted byway south of the site is classed as high. The scale of effect is judged to be medium as the views will be noticeably changed with new features introduced. The long-term duration and localised extent of this effect give rise to a medium magnitude of effect. Combining assessment of the sensitivity of the receptor with the magnitude of effect, provides an overall significance of effect as major-moderate adverse.

Users of PROW bridleway on the site boundary (VP 11)

- 7.16 Viewpoint 11 is taken from a bridleway adjacent to western boundary of the site, looking south east across the site. The site is separated from the bridleway by an existing native hedgerow which is dense in places, but with large gaps. New saplings have been recently planted to strengthen this field boundary and create a continuous hedgerow. The view is dominated by the existing arable field, planted with crops, which slopes gently downwards to the A303 road corridor. Beyond this point, the terrain rises as a succession of fields interspersed with small woodland clusters. Constant traffic noise reduces the tranquillity from here significantly, with large vehicles visible on the road. Small groups of farm buildings and houses on the edge of Chicklade village, can be seen on the left of the view.
- 7.17 The proposals have concentrated the solar panels development to the south-eastern part of the field. Mitigation includes a new mixed native hedgerow across the north or the solar panel area and across the south west part of the field. Lowland meadow in the north of the site would have little visual effect, however new orchard trees in the south west will have a positive effect. There would be a large change experienced by this receptor due to the proposals, although the mitigation planting and site layout would help to minimise the impact of this, especially once new hedge planting and trees have established.

- 7.18 The sensitivity of this receptor is high and the scale of effect is assessed as large, due to the fundamental change post development. The scale of development and mitigation measures would see this reduce to medium once planting has fully established. The changes are long term in duration and localised in extent, providing a magnitude of change of high, becoming medium in time. The significance of effect for this receptor is major adverse, becoming major to moderate adverse once hedge planting has established after around five years.

Users of PROW bridleway north of the site (VP 12)

- 7.19 Viewpoint 12 is taken from a public bridleway north of the site. The ZTV suggested that proposals may be visible from here, however woodland on the intervening ridge between this location and the site completely blocks any views. Therefore, the significance of visual effect on this receptor is none.

Users of PROW bridleways north east of the site (VPs 13, 14, 15, 16)

- 7.20 Users of public bridleways on the hillside to the north east of the site have been grouped together. Four photographs represent these users. Viewpoint 13 is taken from a bridleway which ascends Cratt Hill, looking south west towards the site, approximately 840m away. The view across the landscape is extensive with a wide expanse of rolling landscape leading to wooded hilltops stretching into the distance. A sloping arable field in the foreground leads to views of pastoral fields bounded by hedges on valley slopes. Vehicles on the A303 road (particularly HGVs or coaches) can be seen, although traffic noise is quiet from this distance. The existing Chicklade Service Station can be seen, as can agricultural buildings located adjacent to the site. The site is visible from here, seen as a large hedge bounded field, although the hedge boundary on the eastern site edge can be seen with many gaps. The area of the site proposed to contain solar PV panels is seen as a very small part of the field from this location.
- 7.21 Viewpoint 14 is taken further south on the bridleway, closer to Chicklade village, and approximately 650m away from the site. The view again consists of rolling fields which are a combination of arable and pastoral. Nearby hedgerow field boundaries are low, or gappy, becoming more substantial around distance fields. Blocks of woodland are visible, mainly on the top of hills, however small clumps are present along the valley corridor. Large vehicles, signage and telecommunications infrastructure can be seen along the road corridor and the background noise of passing vehicles has increased compared to VP13. Chicklade Service Station roof is visible in the distance and the site is visible, however the southern portion of the site which is to be altered with the addition of solar panels, landscaping and associated infrastructure, forms a very narrow part of the view. Proposed reinforcement to boundary hedges, woodland planting and a new hedge along the northern edge of the fenced solar array will further enclose and screen the proposals from this location once planting has established.
- 7.22 Viewpoint 15 is taken from another bridleway approximately 1.47km away from the site on the hillside leading to Great Ridge and large areas of woodland. The view consists of sloped arable fields with some hedgerow planting leading towards the valley's transport corridor containing glimpses of vehicles travelling along the A303. Beyond the road the landscape the rises as pastoral fields and in the far distance wooded hilltops can be seen. The transport corridor forms a distinctive part of the view, due to travelling vehicles and associated

infrastructure and noise. Agricultural barns beyond the site can be seen, although the site itself forms a very small strip of land from here and is difficult to determine. Proposed reinforced hedge boundaries as part of the proposals will hinder views of the site from here further. Once woodland and hedgerow planting has established, it is expected that the proposals would be hard to see from here.

- 7.23 Viewpoint 16 is taken from a public bridleway above Chicklade Dairy and approximately 1.29km away from the site. Much of the view is of pastoral rolling fields with gappy hedgerow boundaries leading to areas of woodland on hilltops. The A303 road corridor is visibly prominent and audible, with continual traffic observed passing thorough. Chicklade Service Station can be seen, as can agricultural buildings and houses located next to the site. The site is clearly visible from here, and the northern half is quite prominent seen as rolling fields in the middle distance. The bottom section of the field, proposed to contain the solar arrays and associated landscaping, forms a small section of the view. With proposed planting on the northern and eastern boundaries, the solar development will be screened from here to some extent, however still visible.
- 7.24 The overall scale of change experienced by users of bridleways north east of the site, is assessed as small, due to a minor alteration to key elements within the view and discernible differences against the baseline situation, although the character of views will be largely unchanged. Higher up the hillside the solar arrays would be less visible, even very difficult to see once mitigation planting has established, however lower slopes would have clearer views. These, however, coincide with an increase in traffic noise, visual clutter along the road corridor and less tranquillity due to the closer proximity of the busy A-road. The duration of effect due to the proposals is long term, with a limited extent of effect. The magnitude of effect is negligible, resulting in an overall significance of effect of minimal adverse.

Users of PROW Monarch's Way long distance path (VPs 17, 20)

- 7.25 Viewpoints 17 and 20 have been taken at points on the Monarch's Way long distance footpath. The Way is based on the route taken by King Charles II during his escape after defeat by Cromwell in the final battle of the Civil Wars at Worcester in 1651. Viewpoint 17 is located on elevated ground, approximately 4.52km east of the site and offers a panoramic view of the open countryside. There are several detracting factors including the nearby presence of the busy A303 road with associated signage and noise which significantly reduces tranquillity at this point of the path. Looking west across the landscape, along the valley corridor and nestled amongst clumps of woodland, characteristic of this locality, the site can be seen above the snaking A-road.
- 7.26 Viewpoint 20 is from further west along the Monarch's Way, approximately 2.47km away from the site. The wider landscape is hidden from users of the footpath due to dense hedgerow vegetation to both sides of the path along this stretch, although a small gap near the A350 road allowed views across the landscape towards the site. The character of the view is farmed landscape of arable and pastoral fields and come hedged boundaries with associated farm buildings and homes. In the distance wooded hilltops can be seen, however the site is not visible from here due to landform.

- 7.27 The proposed solar development, with associated landscaping and fencing covering the lower part of the existing field, would be visible in the distance from Viewpoint 17. The scale of the visual effect experienced by users of the path will result in a very minor alteration to features and characteristics, such that the post development baseline will have barely perceptible differences. This is due to the substantial distance from the site, comparative to the scale of the proposed changes, and due to mitigation planting, hedgerow management and the very small portion of the view effected. The overall character of the view will remain the same: a vast panoramic rural landscape with only a minor change occurring within an already developed transport corridor.
- 7.28 The duration of the effect will be long term and the extent will be intermediate. The resulting magnitude of the effect is low and the overall significance of effect on this receptor is moderate to slight-adverse.

Users of PROW Wessex Ridgeway long distance path (VP 18)

- 7.29 Viewpoint 18 is taken from the Wessex Ridgeway, a historic, 138-mile long-distance path linking Marlborough in Wiltshire, to Lyme Regis in Dorset, offering ancient history, varied landscapes, and connecting to the Greater Ridgeway for a much longer journey to Norfolk. The ZTV predicts no views of the site which has been confirmed by a field visit. The view looks up an arable field towards its wooded top with Hawking Down house located amongst the trees. The site is approximately 1.50km away in the north, however there is no visibility of the site.

Users of PROW bridleway south of the site (VP19)

- 7.30 Viewpoint 19 is taken from a public bridleway approximately 1.52km away from the site to the south. There is no predicted visibility of the site, which was confirmed during field studies, as its visibility is constrained by a ridge which blocks views any further south than around half a kilometre.

8 Summary

- 8.1 This report has outlined the landscape and visual impacts possible due to the development proposals set out in the planning application and the layout shown in landscape framework plan (DWG: 25138-LHC-00-XX-DR-L-9401). The landscape plan outlines enhancements to the site's landscape, including new hedgerows with trees, native woodland planting, orchard tree planting and meadow grass seeding which accords with NPPF paragraph 187 that a development should 'improve local environmental conditions' and demonstrates that the natural pattern of features such as hedgerows and field boundaries will be 'conserved and enhanced' in alignment with Wiltshire Core Policy 51 Landscape.
- 8.2 The NPPF and Wiltshire Core Strategy seek to '*increase the use and supply of renewable energy*' and '*tackle the causes and effects of climate change*' while '*ensuring adverse (landscape and visual) impacts are addressed accordingly*'. This report has shown how mitigation measures will lessen the landscape and visual impact from the proposals and how the visibility of the proposals is constrained due to layout size, mitigation measures and location, reducing potential impact within the National Landscape and in particular within the tranquil rural landscape and from popular and important viewpoints.
- 8.3 The LVIA report shows that '*landscape features of cultural, historic and heritage value*' (Core Policy 51) will not be adversely impacted. The site layout, location and mitigation measures have sought to *protect important views and visual amenity* and maintain the tranquillity (Core Policy 51) of the National Landscape though the proposed development's location within a busy transport corridor with limited visibility into the wider countryside.
- 8.4 The Wiltshire Renewable Energy Landscape Sensitivity Assessment identifies broad areas for *renewable energy development, without specific sites analysed*. The site is within an area classed as having *greater landscape impact* for solar on the proposed scale, however this designation includes the entirety of Landscape Character Area 2A (Open Chalk Downland) and does not distinguish between the A303 trunk road corridor, with nearby associated commercial and residential development and a distinct lack of tranquillity, and the wider National Landscape countryside. This is crossed with PROWs and offering many panoramic long distance views across rolling landscape and a great sense of tranquillity, where landscape and visual impact may be much greater than the proposals here.

Landscape Effects

- 8.5 The assessment evaluates the landscape effects of the proposed solar development using fieldwork and photography, considering the scale, duration, extent and magnitude of change. The scheme will introduce solar PV modules, fencing, access tracks, transformers and associated infrastructure, replacing intensively farmed arable land. While the proposed development represents a fundamental long-term change at the site level, existing field boundaries will be retained and enhanced through new native hedgerow planting and an area of orchard and woodland planting and wildflower meadow will be created. The surrounding landscape is heavily influenced by the A303 transport corridor and nearby development, with moderate containment from landform and vegetation. Overall, the site and immediate surroundings are assessed as having medium landscape sensitivity, a high magnitude of change, and a resulting major to moderate adverse landscape effect.

- 8.6 At a wider scale, the site lies within National Character Area 132 (Salisbury Plain and West Wiltshire Downs). Although the NCA has high value and medium to high quality, the development would result in only a small-scale change within the broader landscape context. The solar array is considered a low-impact, temporary (albeit long-term) intervention, located close to existing infrastructure and away from more tranquil parts of the NCA. Proposed mitigation aligns with the NCA's objectives by strengthening hedgerows and enhancing landscape and ecological assets. The magnitude of effect on the NCA is assessed as low, with an overall significance of slight to moderate adverse.
- 8.7 The site is also within the Cranborne Chase National Landscape (AONB), and the West Wiltshire Downs Open Chalk Downland character area. Much of this covers the same area as shown in the older Wiltshire Landscape Assessment (2005), so they are treated as one. This nationally designated landscape has high sensitivity, although the site location is already influenced by fast-moving transport corridors. The proposals are small in scale relative to the wider landscape, they retain and enhance field boundaries, and do not affect key archaeological features. The changes are long term and experienced over an intermediate area resulting in an overall moderate adverse effect on the National Landscape.

Visual Effects

- 8.8 The visual effects assessment used ZTV modelling, fieldwork and photography to evaluate potential visibility of the proposed solar development from roads, public rights of way and long-distance trails. Overall visibility is constrained by landform, existing vegetation and the presence of the A303 corridor, with views often intermittent or distant. For users of the A303 and nearby minor roads, visibility is negligible to very limited due to hedgerows, roadside activity and transient views, resulting in minimal to minor adverse effects.
- 8.9 The greatest visual effects occur for users of public rights of way closest to the site, particularly the bridleway along the western site boundary and the bridleway/restricted byway south of the site. Here, the development would introduce noticeable new built elements into currently open farmland, leading to major to moderate adverse effects, reducing over time as mitigation planting establishes. Users of bridleways further north and north-east experience small to negligible changes, as the solar array occupies a minor part of wider views already influenced by road infrastructure and traffic.
- 8.10 At a wider scale, effects on long-distance routes such as the Monarch's Way are limited, with the development visible only as a very small and distant element within expansive panoramic views, resulting in slight to moderate adverse effects. No visual effects are predicted for the Wessex Ridgeway or bridleways further south, where landform and woodland block any views of the site.

Appendix 5.2 – LVIA Methodology

Appendix 1 - LVIA Methodology

The methodology used in the preparation of landscape and visual impact assessment (LVIA) is contained within *Guidelines for Landscape and Visual Impact Assessment (3rd. Ed. 2013)* published by the Landscape Institute and the Institute for Environmental Management and Assessment. The methodology and terminology used in this assessment is also consistent with the *Landscape Character Assessment Guidance for England and Scotland* (Countryside Agency and Scottish Natural Heritage 2002) and *An Approach to Landscape Character Assessment* (Natural England 2014).

In line with the accepted methodologies above, the LVIA process comprises four key elements:

- Establishment of the baseline conditions,
- Assessment of the potential impacts of the proposed development,
- Assessment of the significance of impacts, and finally,
- Proposals for mitigating impacts.

It should be noted that landscape impacts and visual impacts are treated separately. Landscape impacts derive from changes in the physical landscape resulting from the proposed development, which may give rise to changes in landscape character. Visual impacts relate to the changes that arise in the composition of available views as a result of the proposed development, and to the overall effects with respect to visual amenity.

Stage 1: Establishing the Baseline- Sensitivity to Changes in Landscape Character

The baseline survey establishes the existing landscape and visual situation, prior to development. The sensitivity of the receiving landscape is determined by its quality, value and its susceptibility to the type of change that is being envisaged.

Landscape quality (or condition) is based on judgements about the physical state of the landscape, and about its intactness, from visual, functional and ecological perspectives. It also reflects the state of repair of individual features and elements that make up the character in any one place.

Table 1 Criteria for Assessing Landscape Quality

Landscape Quality (or Condition)	Typical Indicators
High	All landscape elements remain intact and in good repair. Buildings are in local vernacular and materials. No detracting elements are evident
Medium – High	Most landscape elements remain intact and in good repair. Most buildings are in local vernacular and materials. Few detracting elements are evident
Medium	Some landscape elements remain intact and in good repair. Some buildings are in local vernacular and materials and some detracting elements are evident
Medium - Low	Few landscape elements remain intact and in good repair. Few buildings are in local vernacular and materials. Many detracting or incongruous elements are evident
Low	No landscape elements remain intact and in good repair. Buildings are not in local vernacular and materials. Detracting or incongruous elements are much in evidence

Landscape value is concerned with the relative value that is attached to different landscapes. In a policy context the usual basis for recognising certain highly-valued landscapes is through the application of a local or national landscape designation. Yet a landscape may also be valued by different communities of interest for many different reasons without any formal designation, recognising, for example, perceptual aspects such as scenic beauty, tranquillity or wildness; special cultural associations; the influence or presence of other conservation interests; or the existence of a consensus about importance, either nationally or locally.

The definition of tranquillity used in this assessment is based on Table 3 of Natural England's "Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England" (NE 2011):

- Contributors to Tranquillity – Presence and/or perceptions of natural landscape, birdsong, peace and quiet, natural looking woodland, stars at night, stream, sea, natural sounds and similar influences
- Detractors from Tranquillity – Presence and/or perceptions of traffic noise, large numbers of people, urban development, overhead light pollution, low flying aircraft, power lines and similar influences

The criteria set out in Table 2 have been used as guidance in reaching an assessment of value.

Table 2: Criteria for the assessment of landscape value

Value	Typical Criteria	Typical Scale		Example
High	Exceptional	High importance and rarity. No or very limited potential for substitution	International, National	World Heritage Site, National Park, AONB
	High	High importance and rarity. Limited potential for substitution	National, Regional and Local	National Park, AONB, AHLV / AGLV (If reviewed and updated)
Medium	Medium	Medium importance and rarity Limited potential for substitution	Regional, Local	AHLV / AGLV (If reviewed and updated)
	Medium / Low	Medium importance and rarity Some or good potential for substitution	Regional, Local	Undesignated, but value expressed for instance in demonstrable use
Low	Low	Low importance and rarity	Local	Areas identified as having some redeeming feature or features and possibly identified for improvement
	Very low	Low importance and rarity	Local	Areas identified for recovery

'Landscape susceptibility' describes the ability of a landscape receptor to accommodate change without undue consequences for the maintenance of the baseline situation and / or the achievement of landscape planning policies or strategies. Assessment takes into account judgements about the scale of the landscape, how robust the particular quality of that landscape is, the pattern of the landscape and the pressures upon it.

Judgements about the level of the susceptibility of the receptor to the type of change proposed take into account the following criteria:

Table 3: Criteria for Assessment of Landscape Susceptibility to Change

Susceptibility to Change	Definition
High	• The landscape is of a very large scale and / or there is a negligible level of containment, resulting in a significant degree of interaction between landform, topography, vegetation cover, field pattern and built form. • There is no existing reference or context within the receptor to the type of development proposed. • The majority of existing element(s) would not be easy to replace (e.g. ancient woodland, mature trees, traditional orchards etc.). • Detracting features and / or major infrastructure are not present in the area. • All of the key characteristics and qualities of the landscape are highly sensitive to change from the type of development being assessed. • The receptor has a very low level of ability to accept the type of development proposed and there are very limited opportunities for mitigation.
Medium - High	• The landscape is of a large scale and / or there is a low level of containment, resulting in a high degree of interaction between landform, topography, vegetation cover, field pattern and built form. • There is little or no existing reference or context within the receptor to the type of development proposed. • The majority of existing element(s) would not be easy to replace (e.g. ancient woodland, mature trees, traditional orchards etc.). • Detracting features and / or major infrastructure are not present in the area or, where present, these have little influence on the character or experience of the landscape. • Many of the key characteristics and qualities of the landscape are highly sensitive to change from the type of development being assessed. • The receptor has a low level of ability to accept the type of development proposed and there are limited opportunities for mitigation.
Medium	• The landscape is of a medium scale and / or there is a moderate level of containment, resulting in a moderate degree of interaction between landform, topography, vegetation cover, field pattern and built form. • There is some existing reference or context within the receptor to the type of development proposed. • There are opportunities for replacement of existing elements. • Detracting features and / or major infrastructure are present in the area and these have a noticeable influence on the character or experience of the landscape. • Some of the key characteristics and qualities of the landscape are highly sensitive to change from the type of development being assessed. • The receptor has a medium level of ability to accept the type of development proposed and there are good opportunities for mitigation.

Susceptibility to Change	Definition
Low-Medium	• The landscape is of small scale and / or has a high level of containment, resulting in only a slight degree of interaction between landform, topography, vegetation cover, field pattern and built form. • There are many existing references within the receptor to the type of development proposed. • Few / no existing landscape elements are present or, where these are present, these can easily be replaced. • Some existing features are detracting and / or major infrastructure is present which has an obvious influence on the character or experience of the landscape. • Few of the key characteristics and qualities of the landscape are highly sensitive to change from the type of development being assessed • The receptor has a high level of ability to accept the type of development proposed and there are very good opportunities for mitigation and enhancement.
Low	• Due to the scale of enclosure, the receptor has no interaction with the surrounding landscape. • The proposed development would be in keeping with the land use of the site and the surrounding landscape. • All landscape elements are easily replaceable. • Existing features are detracting and / or major infrastructure is present which heavily influences the character or experience of the landscape. • Key characteristics and qualities of the landscape are robust and less likely to be adversely affected by the type of development being assessed. • The receptor has a very high level of ability to accept the type of development proposed and there are very good opportunities for mitigation and enhancement.

The sensitivity of the landscape is then assessed, taking into account judgements about quality, value and susceptibility to change. Landscape sensitivity is the degree to which a particular landscape character area can accommodate change without unacceptable detrimental effects on its character.

Stage 1: Establishing the Baseline – Sensitivity to Visual Change

An assessment is made of the area from which the site is theoretically visible using LiDAR Digital Mapping Data. The map shows theoretical visibility based on topography, buildings and vegetation.

Once the visual envelope had been established, potential receptors within it are identified. These include people living or working in settlements and residential properties; users of roads and footpaths; visitors to viewpoints etc.

Depending on the activity in which they are engaged and where they are, people will be more or less susceptible to changes in their visual outlook. In assessing the sensitivity that people will have, the criteria list below in Table 4 will be used as guidance.

Table 4: Criteria for visual receptor susceptibility to change (sensitivity)

Sensitivity	Typical Criteria
High	• Public views within areas of protected landscapes such as National Parks, National Landscapes (formally AONBs). • Users of outdoor recreational facilities including public rights of way, whose attention or interest is focussed on the landscape and where tolerance to change is likely to be low. • Communities where the development results in changes to the landscape setting or valued views enjoyed by the community. • Occupiers of residential properties with views affected by the development.
Medium	• People travelling through or past the affected landscape in cars, on trains or other transport routes whose attention or interest is focussed on the landscape and where tolerance to change is likely to be low.
Low	• People engaged in outdoor sport or recreation whose attention may be focussed away from the landscape and where tolerance to change may be high. • People at their place of work, or engaged in similar activities, whose attention may be focussed away from the change in view and where tolerance to change may be high. • People using urban roads, footways, railways and industrial areas whose attention may be focussed away from the landscape and where tolerance to change may be high.

The value of a particular view is then assessed. This takes into account factors such as; importance of the view (whether it is noted in guide books, identified as a viewpoint on maps, has particular cultural or heritage associations); the number of people who are likely to see the view; the rarity or otherwise of the type of view; other sensory qualities.

A number of viewpoints were selected from within the visual envelope representing a range of views, distances and receptor types as well as to represent qualities and characteristics of the surrounding landscape. The locations of viewpoints were identified in the field, and were chosen to illustrate a 'worst case scenario'. For example, where the site cannot be seen from a lane because of a high hedgebank, but there is one gateway in it with a view towards the site, then this gateway is used as a viewpoint.

Photographs are used to record the views from each representative viewpoint, using a 50mm lens and a full frame digital SLR camera, and presented as part of the assessment.

Stage 2: Assessment of Predicted Magnitude of Effect: Landscape and Visual.

A combination of fieldwork and photographs are used to assess the **scale** of effect on landscape qualities / characteristics and views resulting from the proposed development. The **duration** of any change and the reversibility of the proposed development and the **extent** of effect are also considered to assess the nature, or **magnitude**, of the effect on landscape qualities, characteristics and designations.

Scale of effect is assessed for all landscape and visual receptors and identifies the degree of change which would arise from the development. It is rated on the following scale:

Table 5: Scale of Effect

Scale	Typical criteria
Large	Total or major alteration to key elements, features, qualities or characteristics, such that post development the baseline situation will be fundamentally changed.
Medium	Partial alteration to key elements, features, qualities or characteristics, such that post development the baseline situation will be noticeably changed.
Small	Minor alteration to key elements, features, qualities or characteristics, such that post development the baseline situation will be largely unchanged despite discernible differences.
Negligible	Very minor alteration to key elements, features, qualities or characteristics, such that post development the baseline situation will be fundamentally unchanged with barely perceptible differences.

Duration of effect is assessed for all landscape and visual receptors and identifies the time period over which the change to the receptor as a result of the development would arise. It is rated on the following scale:

Table 6: Duration of Effect

Level	Typical criteria
Permanent	The change is expected to be permanent and there is no intention for it to be reversed.
Long term	The change is expected to be in place for 10-25 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
Medium term	The change is expected to be in place for 2-10 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
Short term	The change is expected to be in place for 0-2 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.

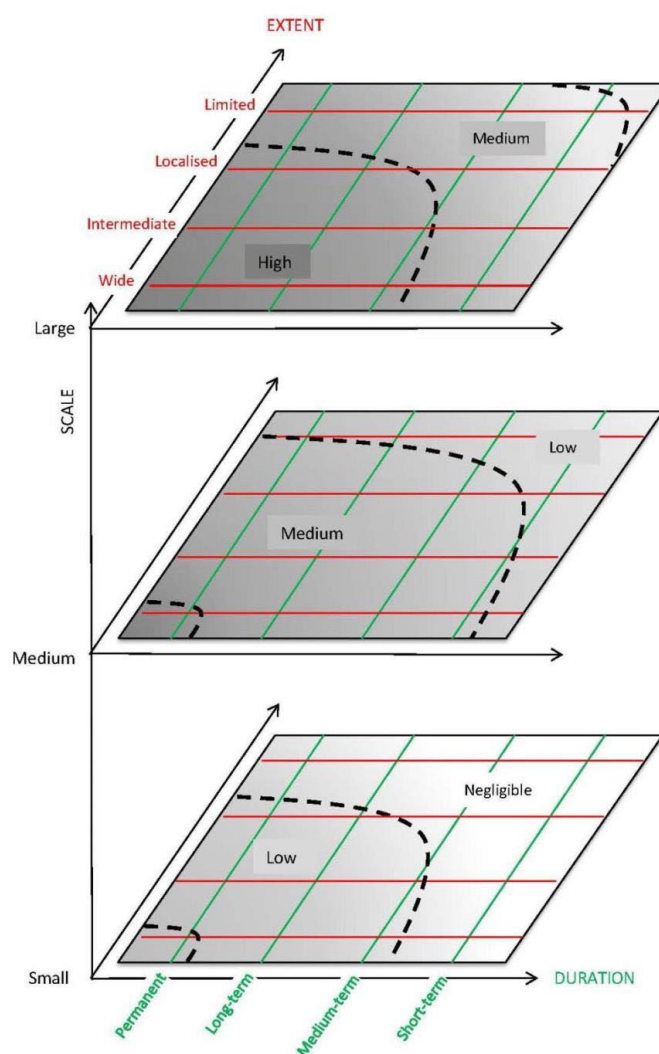
The **Extent** of effect is assessed for all receptors and indicates the geographic area over which the effect will be felt. This is rated as follows:

Table7: Extent of Effect

Level	Typical criteria
Limited	Site, or part of Site, or small part of a receptor area (< approx. 10%).
Localised	Site and surroundings up to 2km, or part of receptor area (up to approx. 25%).
Intermediate	Up to approx. 2-4km, or around half of receptor area.
Wide	Beyond 4km, or more than half of receptor.

The **Magnitude** of effect is rated within the range of High-Medium-Low-Negligible and is informed by combining the scale, duration and extent of effect. Where applicable, an assessment is made at Year 1 and Year 15 – allowing for any mitigating planting to have taken effect. The diagram below illustrates the judgement process:

Fig 1: Magnitude of Effect



Stage 3: Determination of Significance

The main purpose of the Landscape and Visual Impact Assessment is to assess whether the proposed development would have **significant** effects and what the nature of those effects would be. Judgements of significance are made by combining assessment of sensitivity of receptors and magnitude of the effect. The descriptors used are illustrated by the diagram below: (based on EIA significance evaluation matrix, IEMA Special report 2011). Judgements are made in accordance with the guidelines set out at paras 5.56 and 6.44 of GLVIA3: In broad terms, large scale effects on highly sensitive receptors are more likely to be significant than small changes to less sensitive landscapes or visual receptors.

For the purpose of this report, significance has been assessed by the Overall Profile method (GLVIA3 para 3.30). Judgements against individual criteria have been combined to reach an overall conclusion on significance which must be proportional to the scale of the project being assessed.

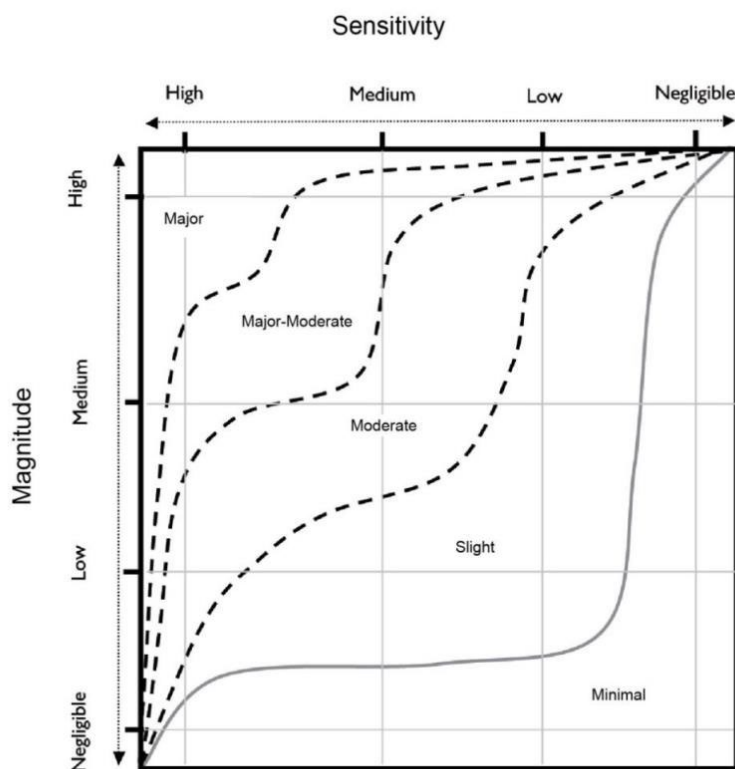
Adverse effects are those that result in the loss or dilution of baseline characteristics or qualities. The effects will work against landscape strategy guidelines or policies.

Beneficial effects will strengthen or protect positive baseline characteristics and qualities. They will tend to contribute to landscape strategies / policies.

Neutral effects have neither positive nor negative effects on baseline characteristics or qualities. They have no impact on landscape strategies or policies.

Where intermediate ratings are given, e.g. “Moderate to Minor”, this indicates an effect that is both less than Moderate and more than Minor, rather than one which varies across the range.

Figure 2: Significance of Effect



Stage 4 - Mitigation Proposals

The LVIA process has been integrated with and informed the design process. Assessments have been made as to how potential effects can be mitigated, through siting or design and the significance with mitigation in place is reassessed, thereby incorporating the effects of mitigation in the assessment.

This is a process that involves all members of the project team and several iterations of the scheme design. The result is to arrive at a scheme that is considered to meet the clients brief and to have the lowest residual significant impacts.

Conclusion

The conclusion summarises the Landscape and Visual Impact Assessment and sets out the overall outcome of the assessment, considering potential changes to the site's context or mitigation.

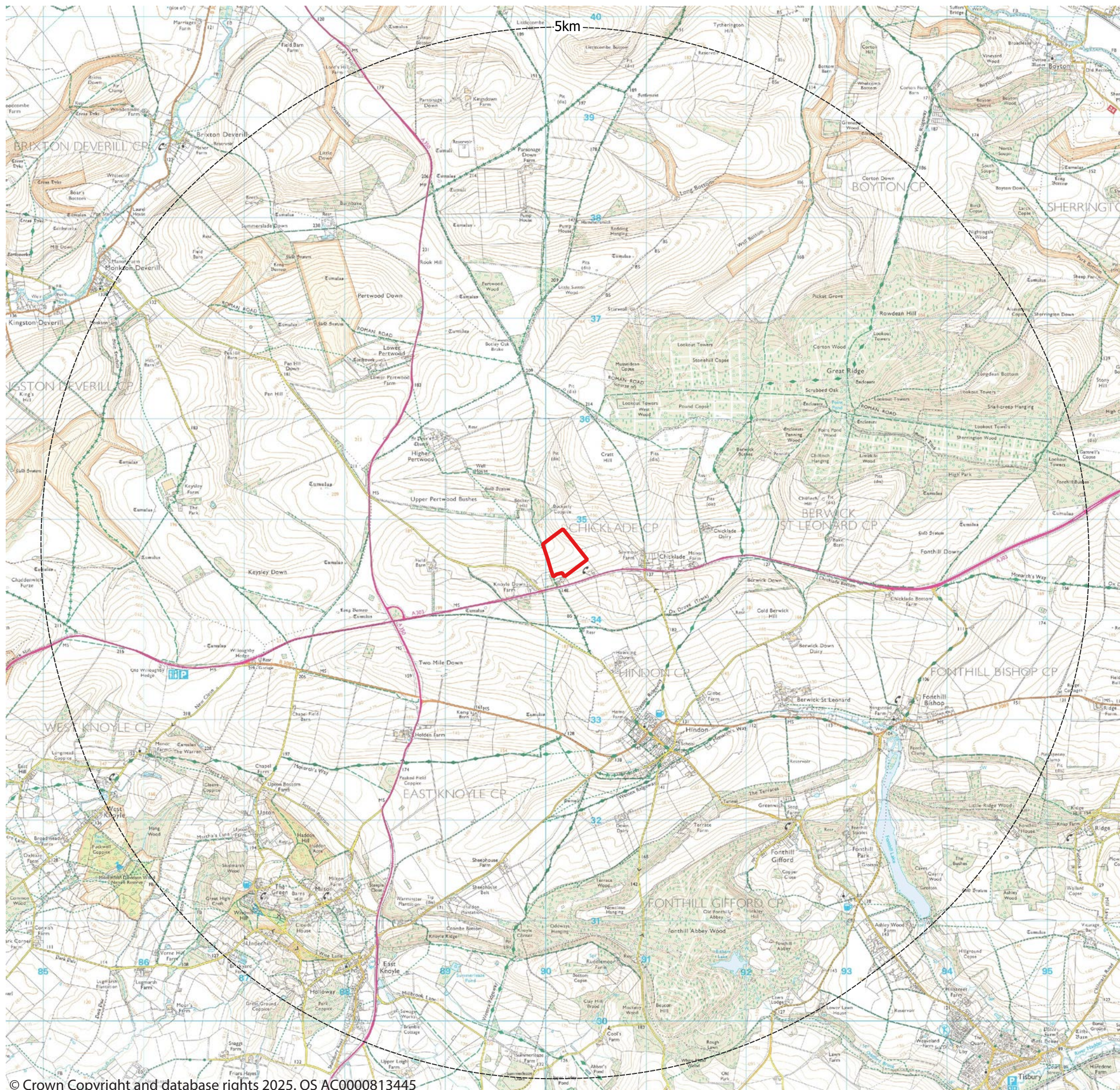
Appendix 5.3 LVIA Diagrams



Chicklade Solar Farm, Wiltshire
Landscape and Visual Impact Assessment
Appendix 2 - Diagrams

January 2026

*Project - 25138
Author/Checked - DE/AS
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Key

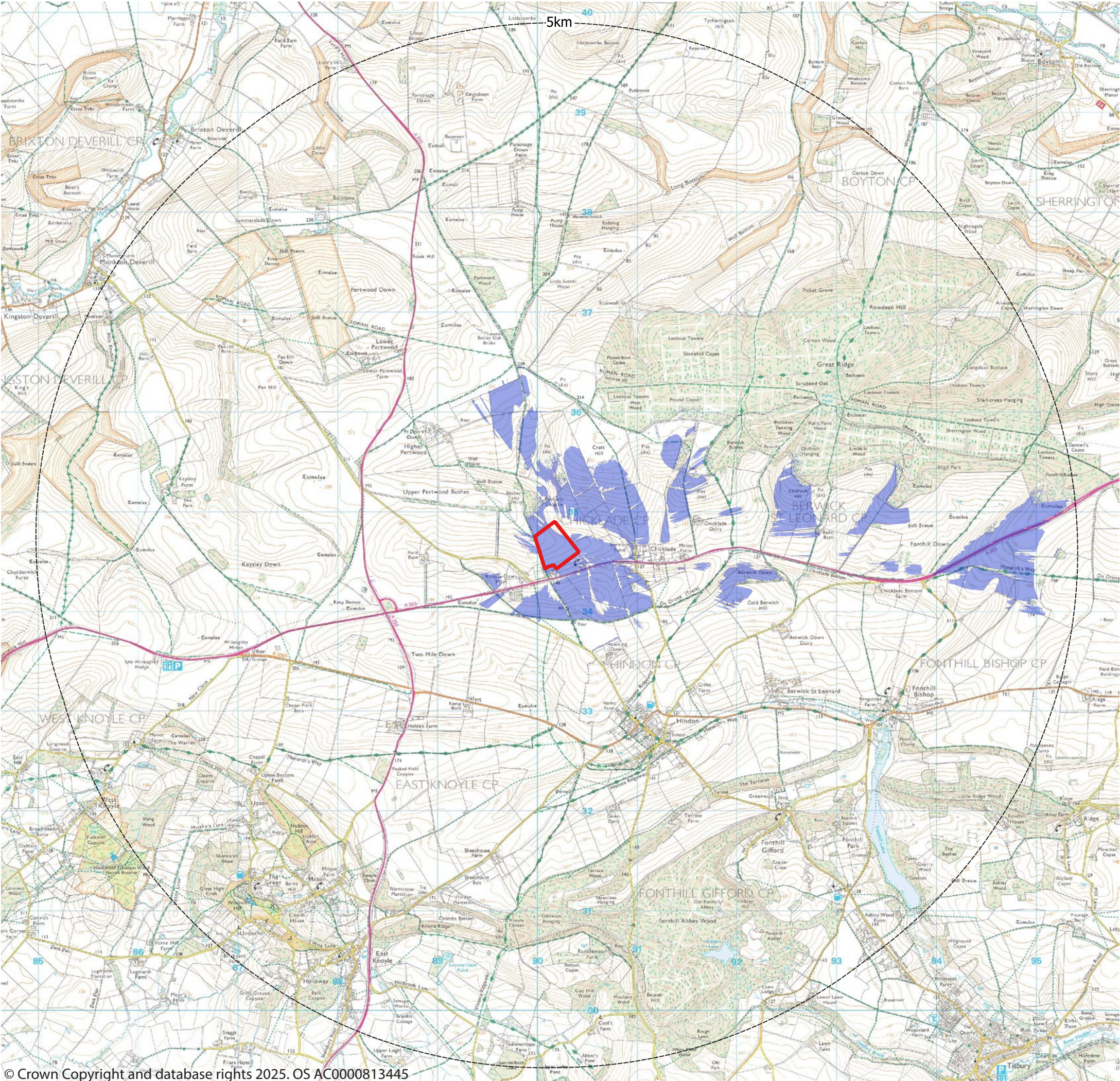
 Site Boundary

25138 - Chicklade Solar

Figure 1 - Site Location and 5km Study Area

A horizontal scale bar with a black segment from 0 to 1 km and a white segment from 1 to 2 km. The labels 0, 1, and 2 km are positioned above the bar.





Key

Site Boundary

Zone of Theoretical Visibility (ZTV)

Potential Visibility

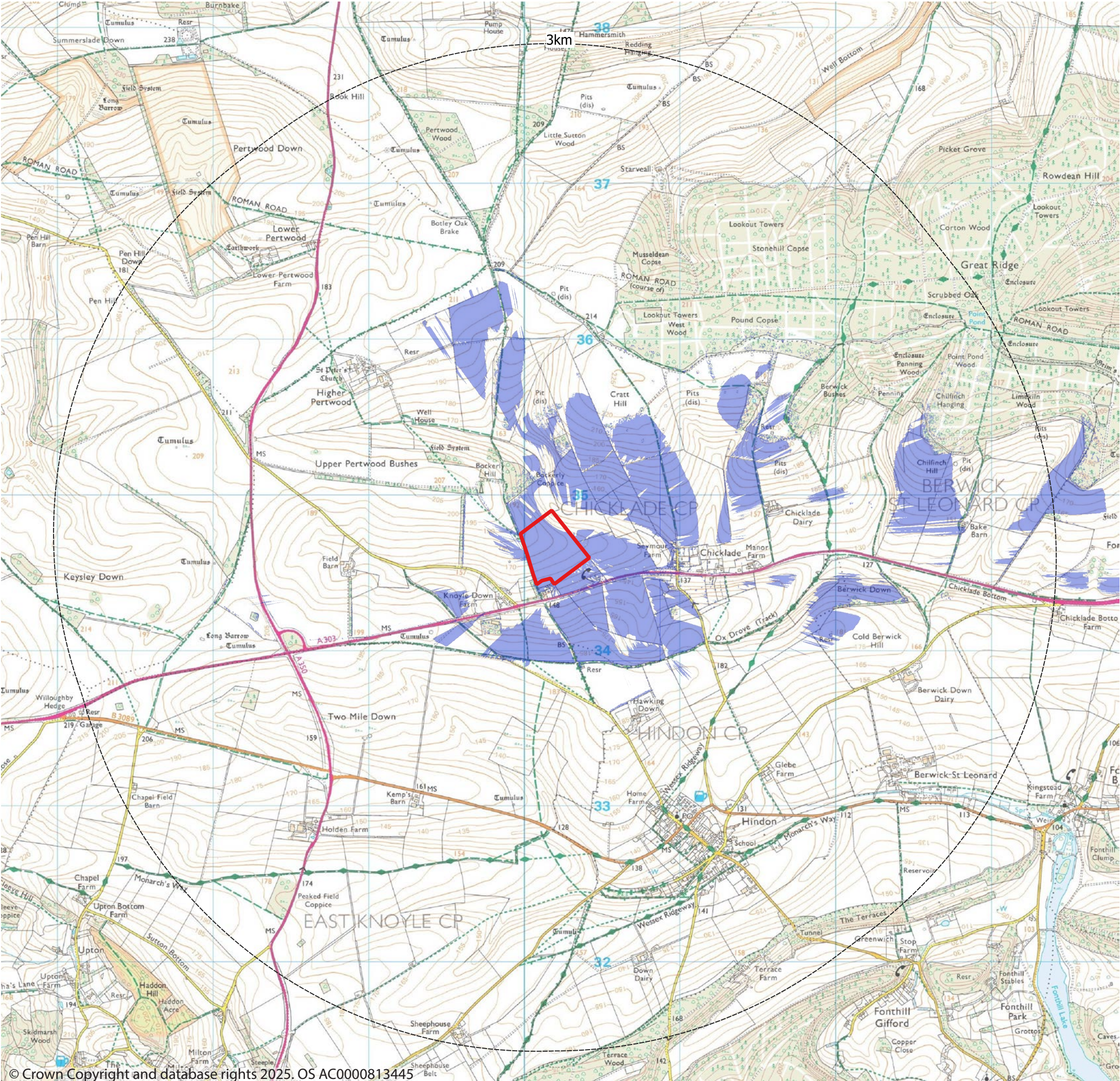
25138 - Chicklade Solar

Figure 2 - Zone of Theoretical Visibility (ZTV)

5km Study Area

012 km

N



Key

Site Boundary

Zone of Theoretical Visibility (ZTV)

Potential Visibility

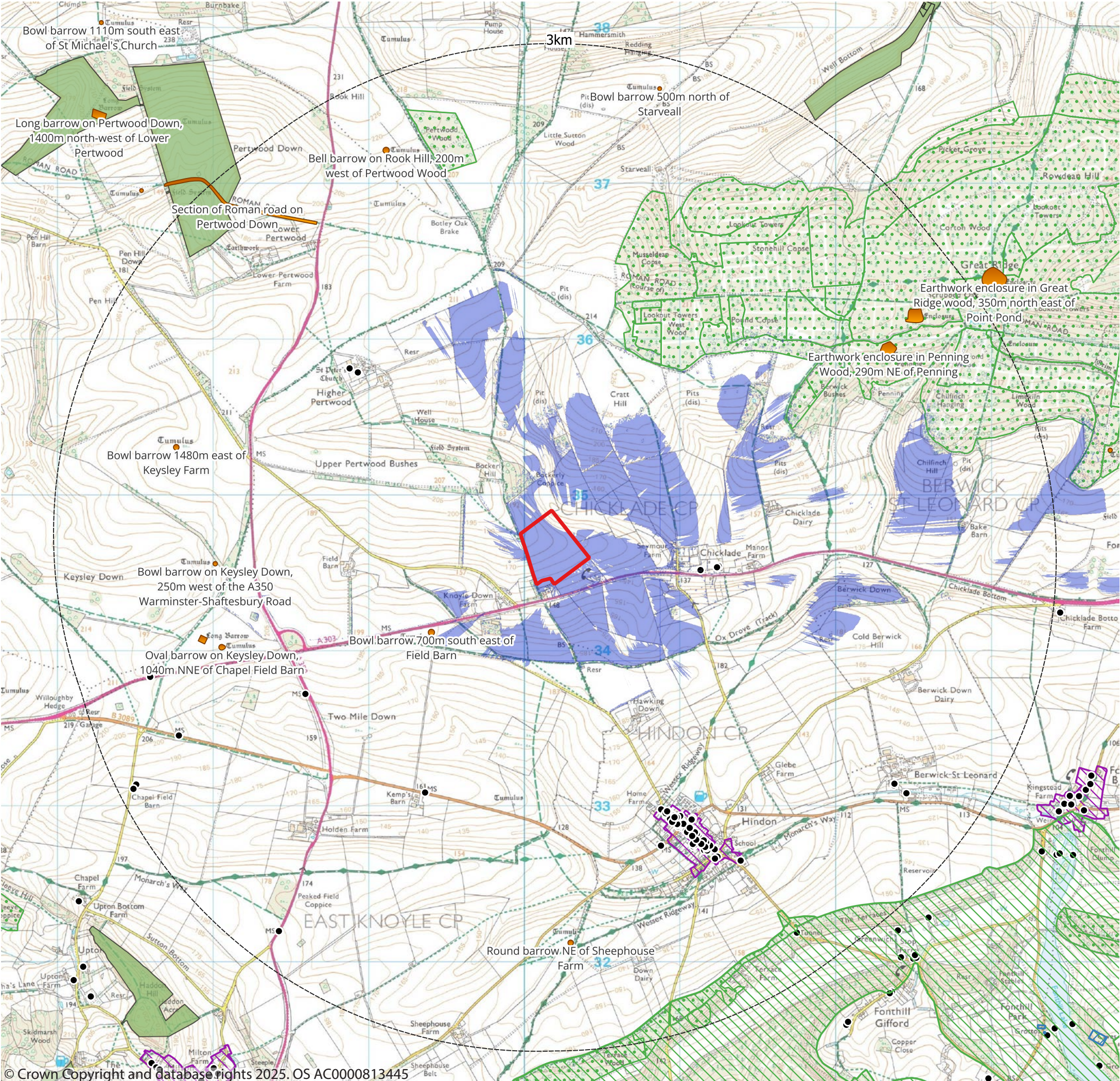
25138 - Chicklade Solar

Figure 3 - Zone of Theoretical Visibility (ZTV)

3km Study Area

0 1 2 km

N



Key

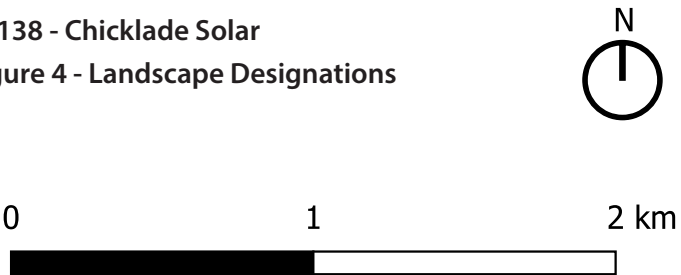
- Site Boundary
- Ancient Woodland
- Countryside Rights of Way Open Access Land
- Registered Parks and Gardens
- Listed Buildings
- Scheduled Monuments
- Sites of Special Scientific Interest (SSSI)

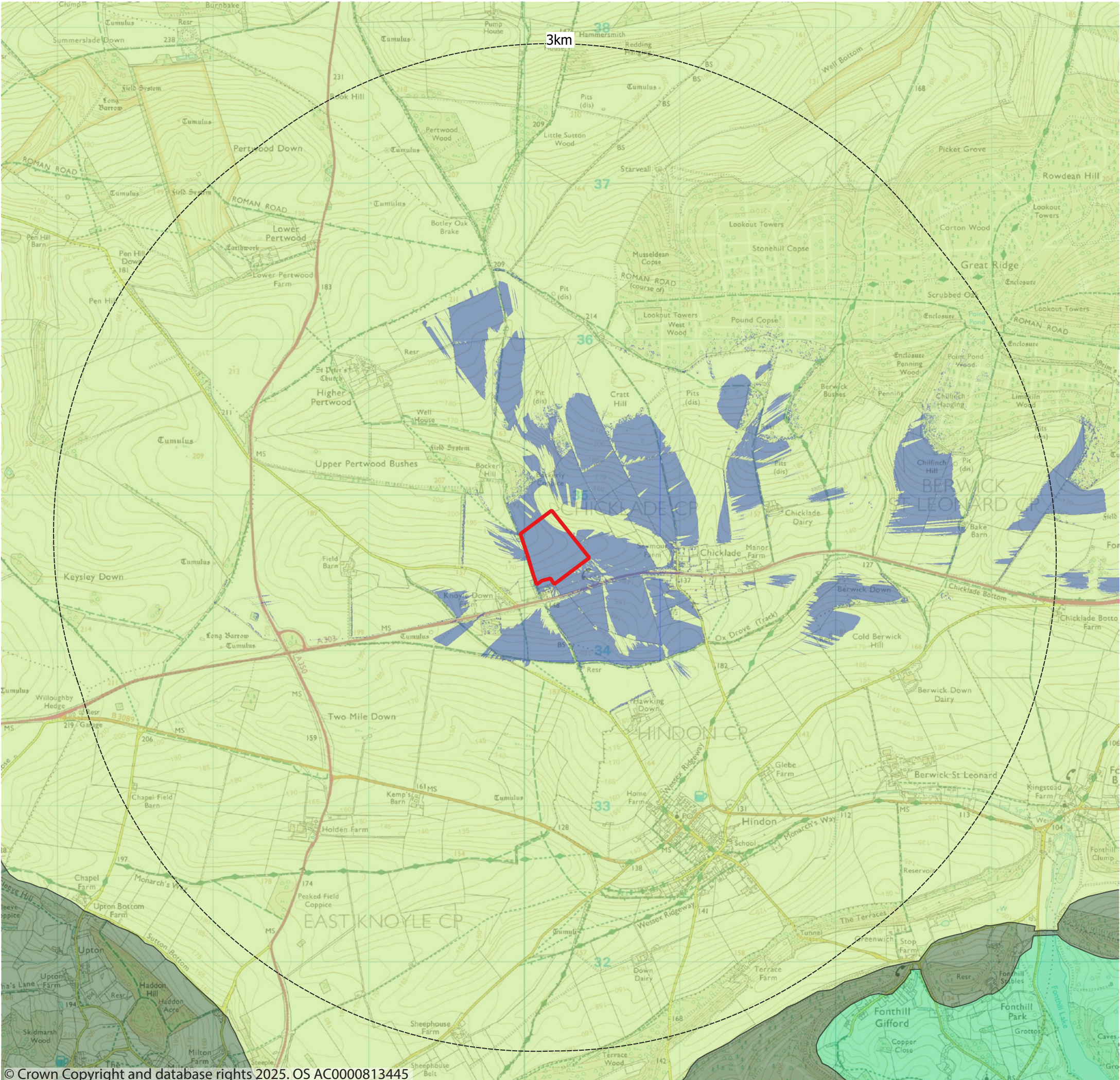
Entire study areas lies with the Cranborne Chase & West Wiltshire Downs National Landscape (formally AONB)

Zone of Theoretical Visibility (ZTV)

- Potential Visibility

25138 - Chicklade Solar
Figure 4 - Landscape Designations





Key

Site Boundary

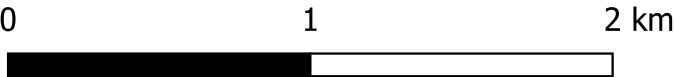
Cranborne Chase National Landscape,
Landscape Character Areas

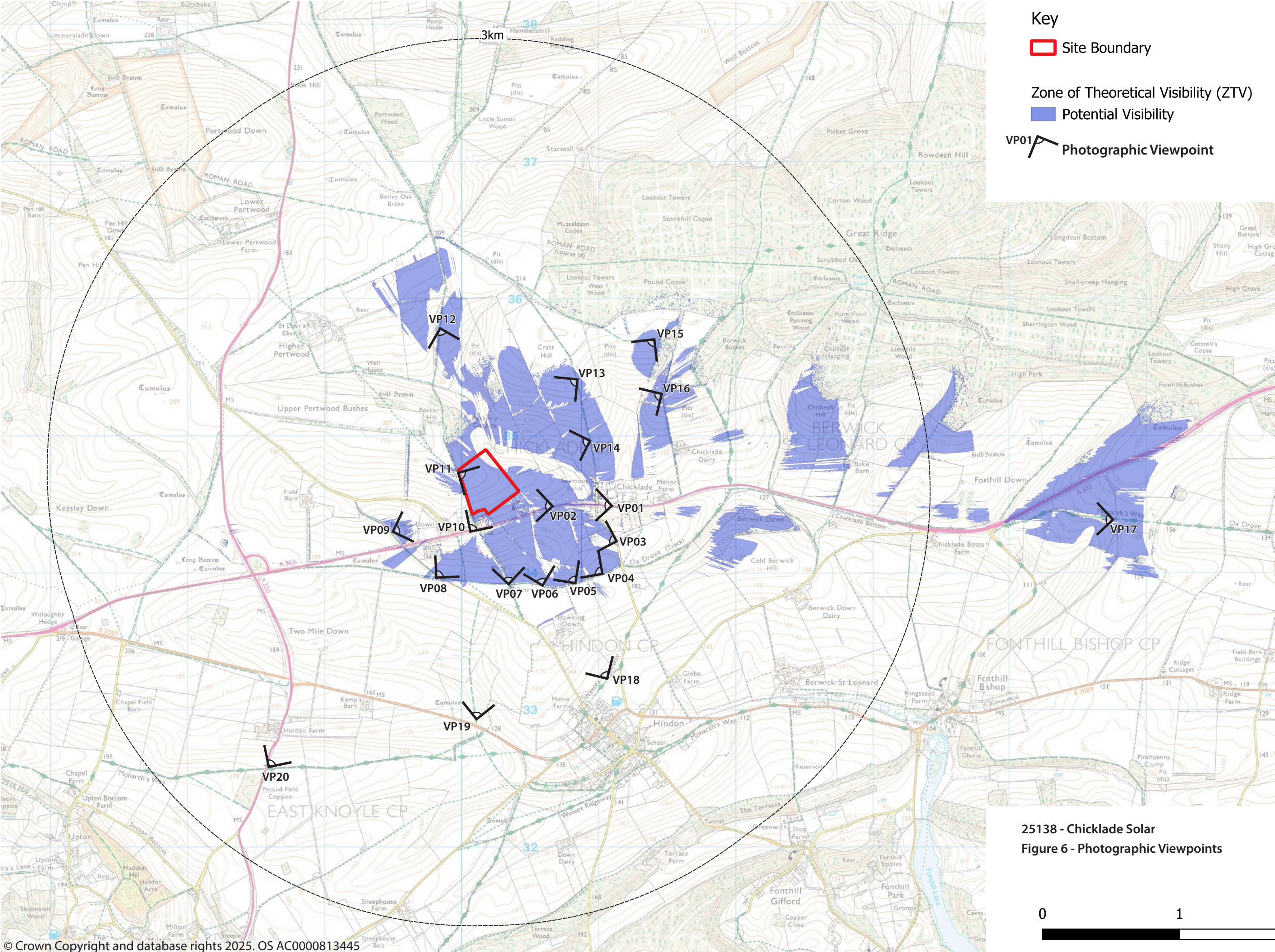
- 8A The Vale of Wardour
- 2A West Wiltshire Downs Open Chalk Downland
- 7A Donhead – Fovant Hills

Zone of Theoretical Visibility (ZTV)

Potential Visibility

25138 - Chicklade Solar
Figure 5 - Landscape Character





Appendix 5.4 Photographs



Chicklade Solar Farm, Wiltshire
Landscape and Visual Impact Assessment
Appendix 3 - Photographs

January 2026

*Project - 25138
Author/Checked - DE/AS
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Figure 1:
Viewpoint 1

Location: Users of A303 road east of the site

Distance from Site: 620m
Grid Ref: ST 91042 34489

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Site (behind hedge)

Figure 2:
Viewpoint 2

Location: Users of A303 road east of the site

Distance from Site: 250m
Grid Ref: ST 90655 34479

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 3:
Viewpoint 3

Location: Users of minor road, south east
of the site

Distance from Site: 800m
Grid Ref: ST 91123 34226

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 4:
Viewpoint 4

Location: Users of Ox Grove (Restricted Byway) south of the site

Distance from Site: 860m
Grid Ref: ST 91040 33990

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 5:
Viewpoint 5

Location: Users of Ox Grove (Restricted Byway) south of the site

Distance from Site: 800m
Grid Ref: ST 90794 33915

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 6:
Viewpoint 6

Location: Users of Ox Grove (Restricted Byway) south of the site

Distance from Site: 640m
Grid Ref: ST 90572 33915

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 7:
Viewpoint 7

Location: Users of PROWbridleway south
of the site

Distance from Site: 575m
Grid Ref: ST 90353 33919

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Site

Figure 8:
Viewpoint 8

Location: Users of PROWbridleway south
of the site

Distance from Site: 520km
Grid Ref: ST 89837 33974

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 9:
Viewpoint 9

Location: Users of PROWbridleway west
of the site

Distance from Site: 585m
Grid Ref: ST 89491 34299

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 10:
Viewpoint 10

Location: Users of A303 road west of the site

Distance from Site: 130m
Grid Ref: ST 90109 34309

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 11:
Viewpoint 11

Location: Users of PROWbridleway on the western site boundary

Distance from Site: 0m
Grid Ref: ST 89978 34719

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 12:
Viewpoint 12

Location: Users of PROWbridleway north
of the site

Distance from Site: 950m
Grid Ref: ST 89823 35664

Project: 25138
Date: December 2025





Figure 13:
Viewpoint 13

Location: Users of PROWbridleway (on
Cratt Hill) north east of the site

Distance from Site: 840m
Grid Ref: ST 90859 35360

Project: 25138
Date: December 2025



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 14:
Viewpoint 14

Location: Users of PROWbridleway north
east of the site

Distance from Site: 650m
Grid Ref: ST 90942 34940

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 15:
Viewpoint 15

Location: Users of PROWbridleway north
east of the site

Distance from Site: 1.47km
Grid Ref: ST 91400 35708

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 16:
Viewpoint 16

Location: Users of PROWbridleway north
east of the site

Distance from Site: 1.29km
Grid Ref: ST 91482 35297

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 17:
Viewpoint 17

Location: Users of PROW Monarch's Way
long distance path east of the site

Distance from Site: 4.52km
Grid Ref: ST 94934 34367

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 18:
Viewpoint 18

Location: Users of PROW Wessex
Ridgeway long distance path

Distance from Site: 1.50km
Grid Ref: ST 91081 33233

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



Figure 19:
Viewpoint 19

Location: Users of PROWbridleway south of the site	Distance from Site: 1.52km Grid Ref: ST 90128 32922	Project: 25138 Date: January 2026
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Figure 20:
Viewpoint 20

Location: Users of PROW Monarch's Way
long distance path south west of the site

Distance from Site: 2.47km
Grid Ref: ST 88588 32563

Project: 25138
Date: January 2026



Please note: To view this image digitally, calibrate the scale bar on screen, for a correct scale representation and view the image at a comfortable arm's length



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