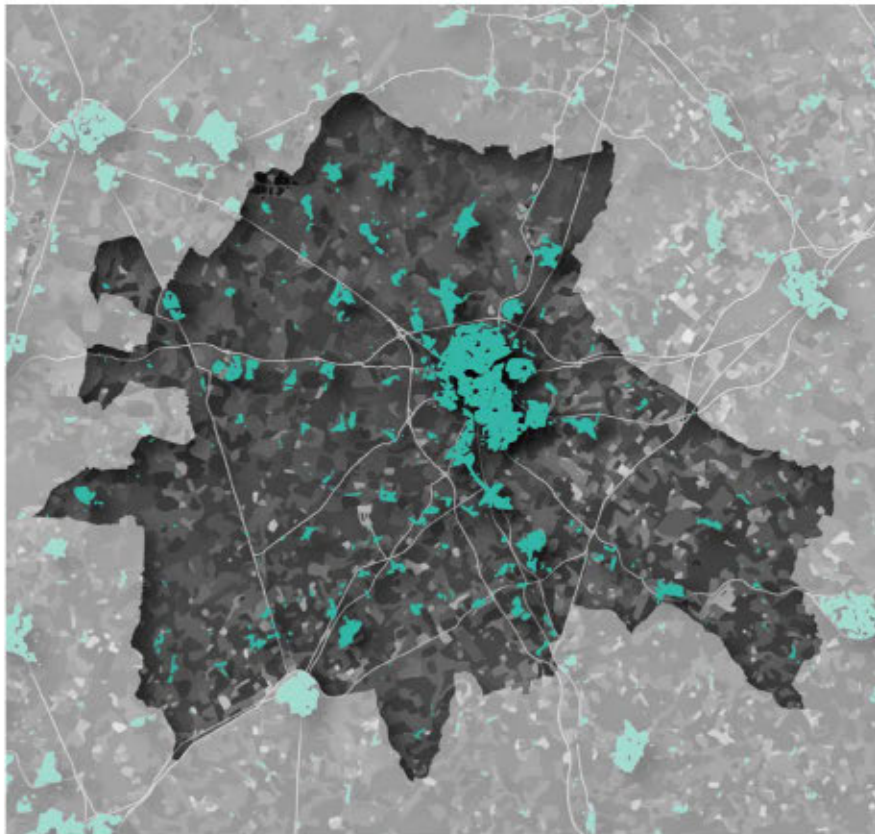


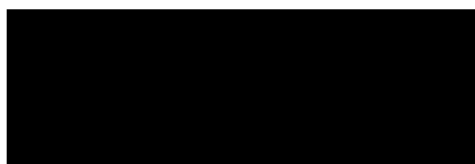
Greater Cambridge Shared Planning
Greater Cambridge
Landscape Sensitivity Assessment
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SUMMARY OF KEY FINDINGS

Wind Energy Development

The Landscape Sensitivity Assessments of the wind energy development scenarios by Landscape Character Type (LCT) within Greater Cambridge can be found in **Chapter 2.0**. The relative landscape sensitivity of the Landscape Character Types (LCTs), and their constituent Landscape Character Areas (LCAs), are summarised in the tables below and on the maps in **Section 2.11**.

Small single turbine (up to 30m in height to blade tip)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Low	None
LCT 2: Fen Edge Claylands	Low	None
LCT 3: Lowland Farmlands	Low	None
LCT 4: Wooded Claylands	Medium to low	None
LCT 5: Wooded Greensand Ridge	Medium to low	None
LCT 6: Fen Edge Chalklands	Low	None
LCT 7: Chalk Hills	Medium to low	None
LCT 8: Lowland Chalklands	Low	None
LCT 9: River Valleys	Medium	- LCA 9A: Cam River Valley – Cambridge - High - LCA 9B – Cam River Valley - High

Large single turbine (up to 120m in height to blade tip)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Medium to low	None
LCT 2: Fen Edge Claylands	Medium to low	None
LCT 3: Lowland Farmlands	Medium to low	None
LCT 4: Wooded Claylands	Medium	None
LCT 5: Wooded Greensand Ridge	Medium	None
LCT 6: Fen Edge Chalklands	Medium to low	None
LCT 7: Chalk Hills	Medium	LCA 7A: Eastern Chalk Hills – Medium to low
LCT 8: Lowland Chalklands	Medium to low	None
LCT 9: River Valleys	High	None

Small-scale wind farm (up to 5 turbines/up to 30m in height to blade tip)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Medium	None
LCT 2: Fen Edge Claylands	Medium to low	None
LCT 3: Lowland Farmlands	Medium to low	None
LCT 4: Wooded Claylands	Medium	None
LCT 5: Wooded Greensand Ridge	Medium	None
LCT 6: Fen Edge Chalklands	Medium to low	None
LCT 7: Chalk Hills	Medium	LCA 7A: Eastern Chalk Hills – Medium to low
LCT 8: Lowland Chalklands	Medium to low	None
LCT 9: River Valleys	High	None

Medium-scale wind farm (up to 20 turbines/up to 120m in height to blade tip)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	High	None
LCT 3: Lowland Farmlands	Medium to high	None
LCT 4: Wooded Claylands	Medium to high	• LCA 4D: West Wrattling Wooded Claylands - High • LCA 4E: West Wickham Wooded Claylands - High • LCA 4F: The Camps Wooded Claylands - High
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	Medium	None
LCT 7: Chalk Hills	Medium to high	• LCA 7A: Eastern Chalk Hills – Medium • LCA 7B: Gog Magog Chalk Hills - High
LCT 8: Lowland Chalklands	Medium to high	None
LCT 9: River Valleys	High	None

Large-scale wind farm (up to 40 turbines/up to 150m in height to blade tip)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	High	None
LCT 3: Lowland Farmlands	High	None
LCT 4: Wooded Claylands	High	None
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	High	None
LCT 7: Chalk Hills	High	None
LCT 8: Lowland Chalklands	High	None
LCT 9: River Valleys	High	None

Very large-scale wind farm (up to 60 turbines/up to 150m in height to blade tip)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	High	None
LCT 3: Lowland Farmlands	High	None
LCT 4: Wooded Claylands	High	None
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	High	None
LCT 7: Chalk Hills	High	None
LCT 8: Lowland Chalklands	High	None
LCT 9: River Valleys	High	None

Solar PV Energy Development

The Landscape Sensitivity Assessments of the solar PV energy development scenarios by Landscape Character Type (LCT) within Greater Cambridge can be found in **Chapter 3.0**. The relative landscape sensitivity of the Landscape Character Types (LCTs), and their constituent Landscape Character Areas (LCAs), are summarised in the tables below and on the maps in **Section 3.11**.

Small-scale solar farms (up to 20ha in extent)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Medium	
LCT 2: Fen Edge Claylands	Low	
LCT 3: Lowland Farmlands	Low	None
LCT 4: Wooded Claylands	Medium	• LCA 4D: West Wrattling Wooded Claylands - Medium to high • LCA 4E: West Wickham Wooded Claylands - Medium to high • LCA 4F: The Camps Wooded Claylands - Medium to high
LCT 5: Wooded Greensand Ridge	Medium to high	None
LCT 6: Fen Edge Chalklands	Low	None
LCT 7: Chalk Hills	Medium	• LCA 7A: Eastern Chalk Hills - Medium to low • LCA 7B: Gog Magog Chalk Hills - Medium to high
LCT 8: Lowland Chalklands	Low	None
LCT 9: River Valleys	Medium to high	None

Medium-scale solar farms (up to 50ha in extent)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Medium to high	None
LCT 2: Fen Edge Claylands	Medium to low	None
LCT 3: Lowland Farmlands	Medium to low	None
LCT 4: Wooded Claylands	Medium to high	• LCA 4D: West Wrattling Wooded Claylands - High • LCA 4E: West Wickham Wooded Claylands - High • LCA 4F: The Camps Wooded Claylands - High
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	Medium to low	None
LCT 7: Chalk Hills	High	• LCA 7A: Eastern Chalk Hills - Medium to high
LCT 8: Lowland Chalklands	Medium to low	None
LCT 9: River Valleys	High	None

Large-scale solar farms (up to 100ha in extent)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	Medium to high	None
LCT 3: Lowland Farmlands	Medium to high	None
LCT 4: Wooded Claylands	High	None
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	Medium to high	None
LCT 7: Chalk Hills	High	None
LCT 8: Lowland Chalklands	Medium	None
LCT 9: River Valleys	High	None

Very large-scale solar farms (up to 200ha in extent)

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	High	None
LCT 3: Lowland Farmlands	High	None
LCT 4: Wooded Claylands	High	None
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	High	None
LCT 7: Chalk Hills	High	None
LCT 8: Lowland Chalklands	Medium to high	None
LCT 9: River Valleys	High	None

Note

The overall findings in relation to small-scale wind and small-scale solar PV energy developments reflect two considerations:

- the potential for the magnitude of visual impacts from small-scale solar development typically sited on slopes within most of the landscape types to be no less greater than a small-scale single turbine development
- the potential for direct impacts on landscape features (such as hedgerows etc) from a small-scale solar development's footprint (up to 20ha in size) to be greater than a small-scale single turbine development scenario.

1.0 INTRODUCTION

1.1 Background

1.1.1 In April 2021, Greater Cambridge Shared Planning (GCSP) appointed Chris Blandford Associates (CBA) to prepare the Greater Cambridge Landscape Sensitivity Assessment (the 'study').

1.1.2 The study comprises two parts:

- Part 1 - Landscape Sensitivity Assessment of residential, commercial and mixed-use development
- Part 2 - Landscape Sensitivity Assessment of renewable energy development (this document)

1.1.3 The study draws on information within the Greater Cambridge Landscape Character Assessment (2021) prepared by CBA, and should be considered together.

1.2 Purpose & Scope

Purpose

1.2.1 In line with the requirements of the National Planning Policy Framework and Planning Practice Guidance, the purpose of the Landscape Sensitivity Assessment is to support and be a part of the evidence base for the Greater Cambridge Local Plan and Sustainability Appraisal.

1.2.2 Together with the 2021 Greater Cambridge Landscape Character Assessment, the Greater Cambridge Landscape Sensitivity Assessment provides a comprehensive understanding of the distinctive features and qualities of the Greater Cambridge landscape and its sensitivity to future development and land use change.

1.2.3 The Landscape Sensitivity Assessment will be used by the Greater Cambridge Shared Planning (GCSP) to:

- Help in developing an appropriate spatial strategy in the Greater Cambridge Local Plan
- Assist with decision-making in the location of site allocations and broad locations for infrastructure
- Inform the review and drafting of suitable Local Plan policies to protect and enhance sensitive and valued landscapes susceptible to particular types of development
- Assist in developing design, place-making and sustainable development/climate change policies in the Local Plan
- Inform development management/decision-making on planning applications in relation to the location/landscape context, design and mitigation of different types of development
- Help in identifying opportunities for landscape restoration, enhancement and management
- Provide a baseline assessment of the current landscape's sensitivities, qualities and values as a tool for monitoring and managing landscape change to inform future decision-making
- Support other studies/guidance that forms part of the evidence base for the Local Plan (particularly the Green Belt Assessment and Green Infrastructure Opportunity Mapping)

1.2.4 The Landscape Sensitivity Assessment can also be used by applicants to inform the production of Landscape and Visual Impact Assessments for planning applications.

1.2.5 The objective of Part 2 of the Landscape Sensitivity Assessment is to assess, at a strategic level, the relative landscape sensitivity of different Landscape Character Types to two specific types of renewable energy infrastructure – wind turbines and field-scale solar photovoltaics (PV).

Scope

1.2.6 The scope for Part 2 of the Landscape Sensitivity Assessment comprises the following Landscape Character Types (LCTs) outside of the Cambridge Urban Area defined by the 2021 Greater Cambridge Landscape Character Assessment as shown on **Figure 1.1**:

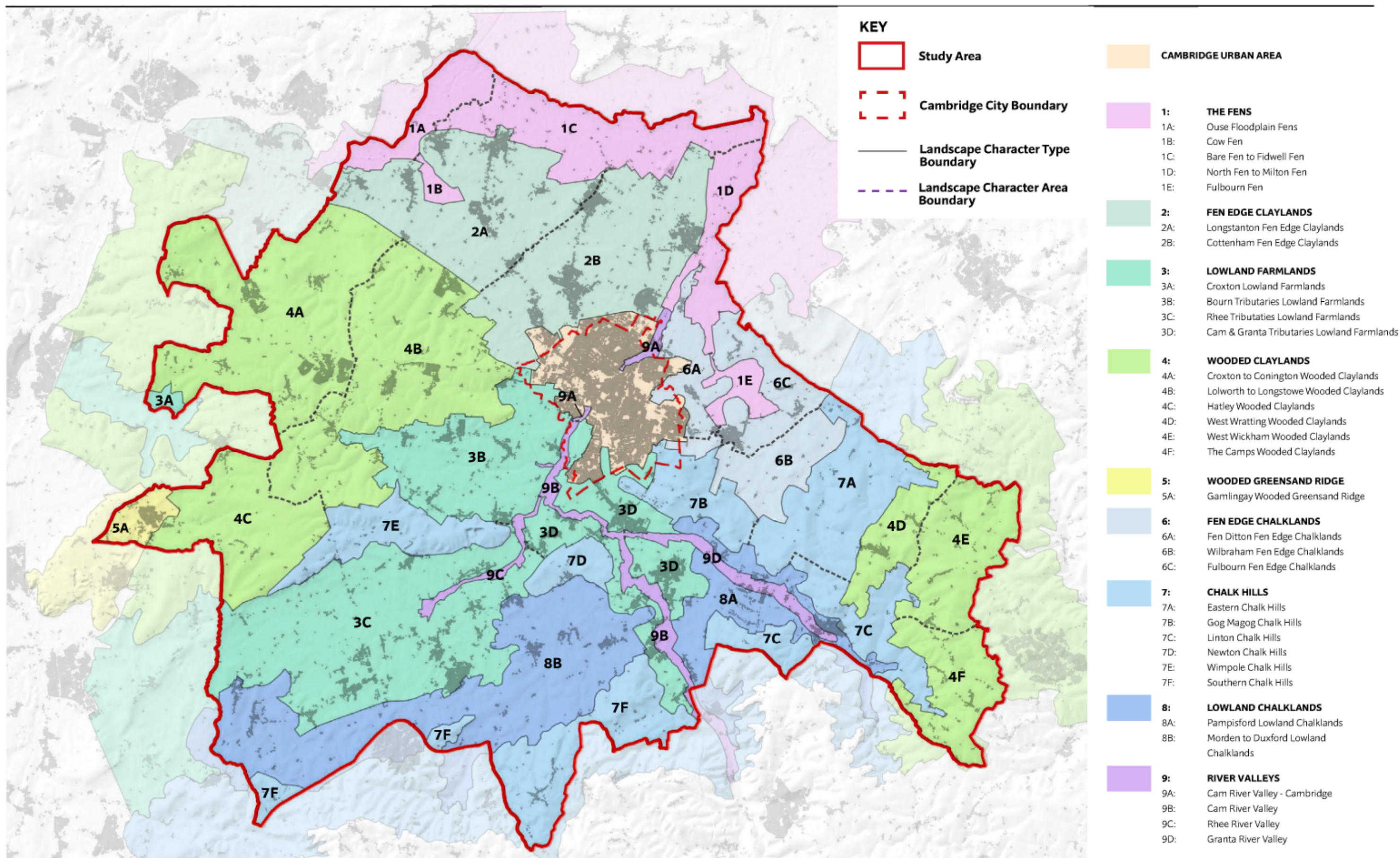
- LCT 1 - The Fens
- LCT 2 - Fen Edge Claylands
- LCT 3 - Lowland Farmlands
- LCT 4 - Wooded Claylands
- LCT 5 - Wooded Greensand Ridge
- LCT 6 - Fen Edge Chalklands
- LCT 7 - Chalk Hills
- LCT 8 - Lowland Chalklands
- LCT 9 - River Valleys

1.2.7 The study area for the wind energy development assessment assumes wind speeds are suitable across the whole of Greater Cambridge for all scales of wind turbines. See the [Cambridgeshire Renewables Infrastructure Framework](#) (2012) for details on the technical potential for wind turbines.

Limitations

1.2.8 This study provides a strategic assessment of the relative landscape sensitivity of different Landscape Character Types to particular scales of wind and solar PV energy development based on the testing of indicative development scenarios. Care should be taken not to interpret the results as a definitive statement on the suitability of a specific site for development.

1.2.9 As with all criteria-based assessments, which are to a greater or lesser extent subjective, a degree of caution is required in its interpretation to avoid the suggestion that certain landscape features or qualities can be absolutely associated with certain sensitivities. In reality, landscape sensitivity is the result of a complex interplay of often unequally weighted variables based on professional judgement.



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- 1.2.10 There may be some criteria which are more important to landscape character in a particular area when assessed at a strategic level. Where there are variations in relation to the sensitivity of individual landscape features within an overall assessment, these are highlighted in the assessment findings where appropriate.
- 1.2.11 This study does not provide an assessment of the landscape's capacity to accommodate a particular amount of wind or solar PV energy development. In line with Natural England's guidance, the Landscape Sensitivity Assessment can be used to influence where, and how much, wind or solar PV energy development might be located in areas of lower landscape sensitivity without undesirable impacts on landscape character and the visual resource. However, judgements on 'how much' development might be accommodated cannot be based on landscape sensitivity alone and the results of this study will need to be considered along with other constraints and wider policy considerations.
- 1.2.12 This study is not a substitute for detailed technical siting, design and landscape and visual impact assessments for specific developments, and all proposals will need to be assessed on their individual merits against suitable criteria based policies in the Local Plan addressing additional site-specific planning issues not covered by this study such as:
- Ecological issues
 - Cultural heritage/archaeological issues
 - Visual amenity issues
 - Technical design/feasibility issues
 - The impact of the associated infrastructure associated with wind energy and solar PV energy development sites i.e. connection to the grid

1.3 National Policy Context

National Planning Policy Framework

- 1.3.1 With regards to plan-making and landscape considerations, paragraph 20 of the National Planning Policy Framework (updated July 2021) states:

‘Strategic policies should set out an overall strategy for the pattern, scale and design quality of development, and make sufficient provision for conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation.’

- 1.3.2 Paragraph 174 requires that planning policies and decisions should contribute to protecting and enhancing valued landscapes, recognising the intrinsic character and beauty of the countryside and improving local environmental condition by remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

- 1.3.3 Paragraph 152 of the NPPF notes that the planning system should support the transition to a low carbon future in a changing climate by helping to support renewable and low carbon energy and associated infrastructure.

- 1.3.4 With regards to helping increase the use and supply of renewable and low carbon energy and heat, paragraph 155 states that plans should:

‘a) Provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (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...’

1.3.5 Paragraph 156 states that local planning authorities should also:

'...support community-led initiatives for renewable and low carbon energy, including developments outside areas identified in local plans or other strategic policies that are being taken forward through neighbourhood planning.'

1.3.6 Paragraph 158 states:

'When determining planning applications for renewable and low carbon development, local planning authorities should...b) approve the application if its impacts are (or can be made) acceptable⁵⁴. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.'

1.3.7 Footnote 54 to paragraph 158 states:

'Except for applications for the repowering of existing wind turbines, a proposed wind energy development involving one or more turbines should not be considered acceptable unless it is in an area identified as suitable for wind energy development in the development plan; and, following consultation, it can be demonstrated that the planning impacts identified by the affected local community have been fully addressed and the proposal has their backing.'

Planning Practice Guidance on the Natural Environment

1.3.8 With regards to guidance for local planning authorities on how planning policies can conserve and enhance landscapes, the Planning Practice Guidance on the Natural Environment (updated 21 July 2019) advises:

'The National Planning Policy Framework is clear that plans should recognise the intrinsic character and beauty of the countryside, and that strategic policies should provide for the conservation and enhancement of landscapes. This can

include nationally and locally-designated landscapes but also the wider countryside.

Where landscapes have a particular local value, it is important for policies to identify their special characteristics and be supported by proportionate evidence. Policies may set out criteria against which proposals for development affecting these areas will be assessed.

Plans can also include policies to avoid adverse impacts on landscapes and to set out necessary mitigation measures, such as appropriate design principles and visual screening, where necessary. The cumulative impacts of development on the landscape need to be considered carefully.'

- 1.3.9 With regards to guidance for local planning authorities on how the character of landscapes can be assessed, the PPG states:

'To help assess the type and scale of development that might be able to be accommodated without compromising landscape character, a Landscape Sensitivity and Capacity Assessment can be completed. To demonstrate the likely effects of a proposed development on the landscape, a Landscape and Visual Impact Assessment can be used'.

- 1.3.10 In accordance with the above, this Landscape Sensitivity Assessment will provide evidence to inform the development of the new Greater Cambridge Local Plan.

Planning Practice Guidance on Renewable & Low Carbon Energy

- 1.3.11 The Planning Practice Guidance (updated 18 June 2015) advises that:

'Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.'

1.3.12 With regards to developing a positive strategy to promote the delivery of renewable and low carbon energy, the PPG advises:

‘When drawing up a Local Plan local planning authorities should first consider what the local potential is for renewable and low carbon energy generation. In considering that potential, the matters local planning authorities should think about include:

- the range of technologies that could be accommodated and the policies needed to encourage their development in the right places;*
- the costs of many renewable energy technologies are falling, potentially increasing their attractiveness and the number of proposals;*
- different technologies have different impacts and impacts can vary by place;*
- the UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.’*

1.3.13 With regards to identifying suitable areas for renewable and low carbon energy, the PPG states:

‘...in considering locations, local planning authorities will need to ensure they take into account the requirements of the technology and, critically, the potential impacts on the local environment, including from cumulative impacts...’

‘When identifying suitable areas it is also important to set out the factors that will be taken into account when considering individual proposals in these areas. These factors may be dependent on the investigatory work underpinning the identified area.’

‘In considering impacts, assessments can use tools to identify where impacts are likely to be acceptable. For example, landscape character areas could form the basis for considering which technologies at which scale may be

appropriate in different types of location. Landscape Character Assessment is a process used to explain the type and characteristics of landscape in an area. Natural England has used Landscape Character Assessment to identify 159 National Character Areas in England which provide a national level database. Landscape Character Assessment carried out at a county or district level may provide a more appropriate scale for assessing the likely landscape and visual impacts of individual proposals...'

'Identifying areas suitable for renewable energy in plans gives greater certainty as to where such development will be permitted. For example, where councils have identified suitable areas for large scale solar farms, they should not have to give permission outside those areas for speculative applications involving the same type of development when they judge the impact to be unacceptable.'

'In the case of wind turbines, a planning application should not be approved unless the proposed development site is an area identified as suitable for wind energy development in a Local or Neighbourhood Plan.'

1.3.14 With regards to how 'suitable areas' should be defined, the PPG states:

'Suitable areas for wind energy development will need to have been allocated clearly in a Local or Neighbourhood Plan. Maps showing the wind resource as favourable to wind turbines or similar will not be sufficient.'

1.3.15 With regards to criteria based policies, the PPG states that:

'Policies based on clear criteria can be useful when they are expressed positively (i.e. that proposals will be accepted where the impact is or can be made acceptable). In thinking about criteria the National Policy Statements published by the Department of Energy and Climate Change provide a useful starting point. These set out the impacts particular technologies can give rise to and how these should be addressed.'

In shaping local criteria for inclusion in Local Plans and considering planning applications in the meantime, it is important to be clear that:

- the need for renewable or low carbon energy does not automatically override environmental protections;*
- cumulative impacts require particular attention, especially the increasing impact that wind turbines and large scale solar farms can have on landscape and local amenity as the number of turbines and solar arrays in an area increases;*
- local topography is an important factor in assessing whether wind turbines and large scale solar farms could have a damaging effect on landscape and recognise that the impact can be as great in predominately flat landscapes as in hilly or mountainous areas;*
- great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting;*
- proposals in National Parks and Areas of Outstanding Natural Beauty, and in areas close to them where there could be an adverse impact on the protected area, will need careful consideration;*
- protecting local amenity is an important consideration which should be given proper weight in planning decisions.'*

Developing a strategy for renewable and low energy carbon in Greater Cambridge

1.3.16 In line with the NPPF and PPG, the Greater Cambridge Local Plan: Net Zero Carbon Evidence Base (2021) supports the development of a positive strategy to promote the delivery of renewable and low energy carbon in Greater Cambridge. The evidence base provides proposed Carbon Reduction Targets and Policy Recommendations, which include consideration of the contribution from wind and solar PV energy.

1.3.17 In line with the NPPF and PPG, this Landscape Sensitivity Assessment also supports the development of the strategy by feeding into the identification of

'suitable areas' for the location of wind and solar PV energy in Greater Cambridge, in combination with evidence about other relevant environmental/technical constraints and other policy considerations.

1.4 Approach

1.4.1 The methodology for undertaking Part 2 of the Landscape Sensitivity Assessment for renewable energy development is set out below.

1.4.2 This Landscape Sensitivity Assessment is undertaken in line with the good practice principles of Natural England's technical guidance 'An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management' (June 2019), taking into account latest best practice approaches developed for assessments undertaken by CBA and others.

1.4.3 Natural England's guidance defines Landscape Sensitivity as follows:

*'Within the context of spatial planning and land management, landscape sensitivity is a term applied to landscape character and the associated visual resource, combining judgements of their **susceptibility** to the specific development type/development scenario or other change being considered together with the **value(s)** related to that landscape and visual resource. Landscape sensitivity may be regarded as a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types or land management practices, without undue negative effects on the landscape and visual baseline and their value.'*

1.4.4 Natural England's guidance defines Landscape Susceptibility as follows:

'Within the context of spatial planning and land management, landscape susceptibility is the degree to which a defined landscape and its associated visual qualities and attributes might respond to the specific development type/development scenario or other change without undue negative effects on landscape character and the visual resource.'

1.4.5 Natural England's guidance defines Landscape Value as follows:

'The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.'

1.4.6 The Landscape Sensitivity Assessment's key steps are:

- Step 1 – Define the Purpose and Scope of the Landscape Sensitivity Assessment
- Step 2 – Gather Information to inform the Landscape Sensitivity Assessment
- Step 3 – Assess Landscape Sensitivity of the Assessment Units
- Step 4 – Reporting

1.5 Guidance for Integrating Development into the Landscape

- 1.5.1 As detailed in the Methodology (**Appendix A**), mitigation of landscape and visual impacts is considered for each Landscape Character Type in terms of (i) the potential to integrate the type and scale of change associated with the development scenario and (ii) the scope for strategic landscape mitigation measures. Opportunities for landscape enhancement and restoration are also considered.
- 1.5.2 In all cases, the Landscape Sensitivity Assessment assumes that the guidance for integrating development into the landscape provided by the Greater Cambridge Landscape Character Assessment where applicable, and other relevant sources of guidance are followed to ensure that new development is carefully designed to be compatible with the characteristics of the wider landscape context.
- 1.5.3 In addition to the above, the Landscape Sensitivity Assessment of wind energy development assumes that the following guidance, developed by CBA based on best practice, for integrating this type of development into the landscape is followed:
- Locate wind energy development carefully to avoid undeveloped prominent hills, ridges and skylines, and use undulating topography and woodlands to reduce the visibility of wind turbines and aid their integration into the landscape
 - Locate wind energy development in large scale, simple, regular landscapes

- Locate wind energy development in sites with a strong sense of enclosure so that ancillary transformer buildings, security fencing and site access tracks are screened by existing trees and hedgerows
- Where located in urban areas, site single wind turbines so that they appear a part of and respond to the scale of other built development
- Avoid sites where there is a strong sense of tranquillity
- Avoid sites where wind turbines may detract from historic landscape features or historic landmarks
- Locate groups of turbines so they appear in views as a simple, visually balanced coherent group
- Ensure wind turbines do not become dominant within the landscape by carefully considering cumulative effects with existing wind energy developments
- Consider locating wind energy development within or close to developed sites, such as business parks, in order to minimise new infrastructure
- Use existing routes and existing site entrances where possible for site access tracks to minimise new tracks in the landscape
- Ensure views towards the site are considered, including from settlements, local PROW, cycle routes, and local viewpoints, and that these views will not be adversely affected by the development
- Reduce contrast with the sky by selecting turbines which are light grey in colour
- Ancillary transformer buildings should respond to the form, scale and proportions of existing vernacular buildings, and reflect traditional local building styles, height, materials, colours and textures, and security or perimeter fencing should be suitable for the location i.e. post and rail fencing in rural locations rather than palisade fencing
- Where possible, use infra-red lighting if lighting is required at night, particularly in areas where there is a strong sense of tranquillity
- Consider opportunities for delivering biodiversity net gains from wind energy developments through enhancement, restoration and/or creation of semi-natural habitats and valued natural features (such as woodland and hedgerows) on- and off-site

- Consider opportunities for strengthening the provision of ecosystem services in line with the Green Infrastructure Opportunity Mapping Study 2021 (e.g. carbon sequestration provided by areas of undisturbed peat within The Fens Landscape Character Type)

1.5.4 In addition to the above, the Landscape Sensitivity Assessment of solar PV energy development assumes that the following guidance, developed by CBA based on best practice, for integrating this type of development into the landscape is followed:

- Locate solar PV energy development carefully to avoid undeveloped prominent hills, ridges and skylines, and use undulating topography and woodlands to reduce the visibility of solar PV panels and aid their integration into the wider landscape.
- Locate solar PV energy development in sites with a strong sense of enclosure to ensure that the development is screened by existing trees and hedgerows
- Locate solar PV energy developments in sites that are in proportion with the development i.e. small scale developments in smaller scale fields
- Avoid sites where there is a strong sense of tranquillity
- Avoid sites where solar PV panels may detract from historic landscape features or historic landmarks
- Avoid sites where there is high natural value such as chalk grassland or deciduous woodland
- Ensure that field patterns remain intact, and that existing trees and hedgerows are retained
- Consider opportunities for re-planting hedgerows where they have been removed to enhance screening and aid landscape integration
- Ensure solar PV Energy developments do not become dominant within the landscape by carefully considering cumulative effects with existing solar PV energy developments
- Use existing routes and existing site entrances where possible for site access tracks to minimise new tracks in the landscape

- Ensure views towards the site are considered, including from settlements, local PROW, cycle routes, and local viewpoints, and that these views will not be adversely affected by the development
- Minimise security lighting where possible, and ensure that lighting design minimises light spill and glare into surrounding areas, particularly in areas where there is a strong sense of tranquillity
- Reduce contrast with the surrounding landscape by selecting appropriately coloured associated infrastructure such as lighting poles, CCTV cameras and inverter buildings
- Security fencing should be suitable for the location i.e. post and rail fencing or deer fencing in rural locations rather than palisade fencing
- Manage the site in a way that is appropriate for the character of the LCT, for example by grazing to prevent the site becoming overgrown
- Consider opportunities for delivering biodiversity net gains from solar PV energy developments through enhancement, restoration and/or creation of semi-natural habitats and valued natural features (such as woodland and hedgerows) on- and off-site
- Consider opportunities for strengthening the provision of ecosystem services in line with the Green Infrastructure Opportunity Mapping Study 2021 (e.g. carbon sequestration provided by areas of undisturbed peat within The Fens Landscape Character Type)

2.0 WIND ENERGY DEVELOPMENT

2.1 Introduction

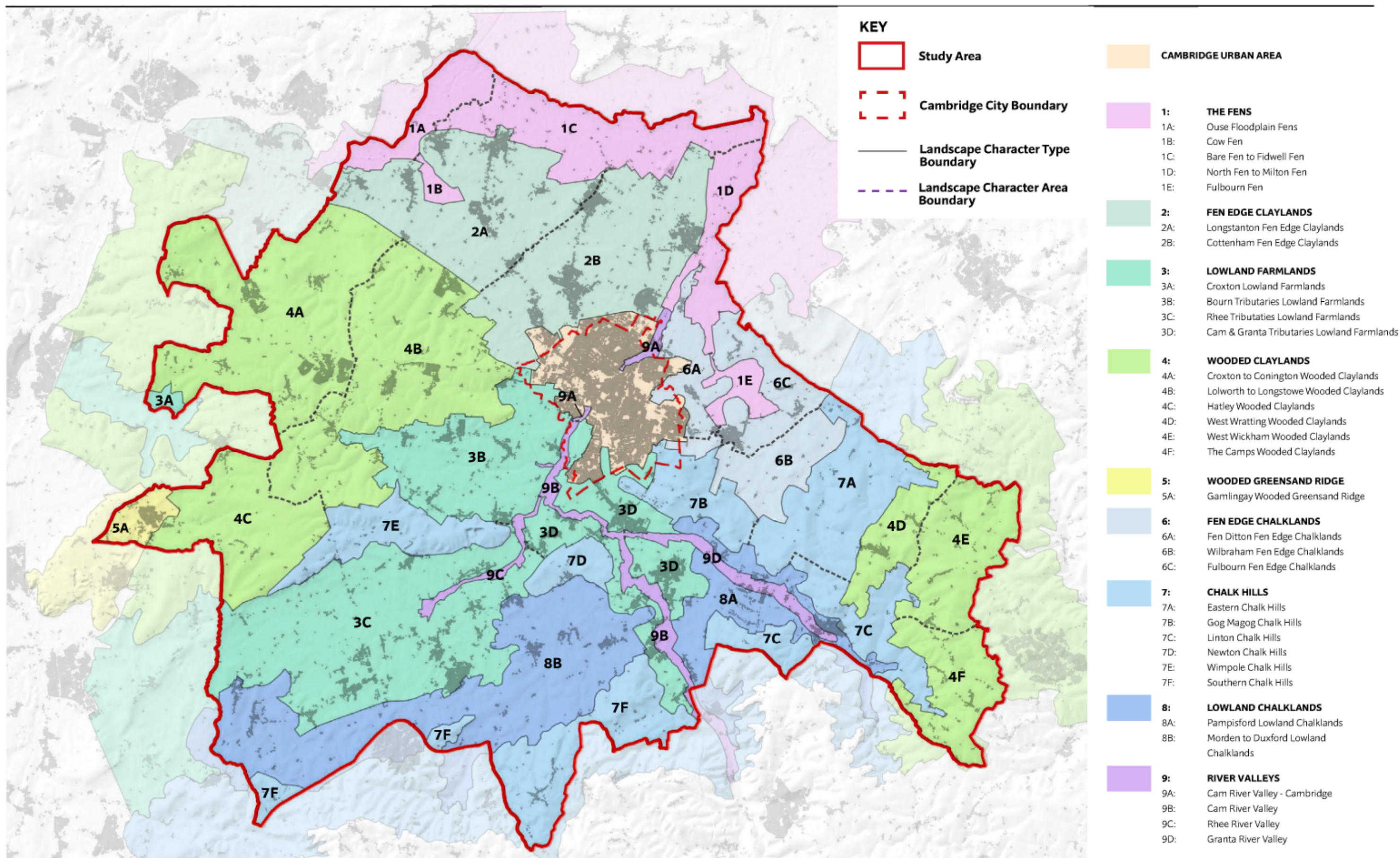
Assessment Units

- 2.1.1 The Assessment Units are provided by the Landscape Character Types (and their constituent Landscape Character Areas) defined by the 2021 Greater Cambridge Landscape Character Assessment¹ as shown on **Figure 2.1**.

Development Scenarios

- 2.1.2 The following development scenarios for wind energy development are considered by the Landscape Sensitivity Assessment:
- **Small single turbine** (up to 30m in height to blade tip)
 - **Large single turbine** (up to 120m in height to blade tip)
 - **Small-scale wind farm** (up to 5 turbines/up to 30m in height to blade tip)
 - **Medium-scale wind farm** (up to 20 turbines/up to 120m in height to blade tip)
 - **Large-scale wind farm** (up to 40 turbines/up to 150m in height to blade tip)
 - **Very large-scale wind farm** (up to 60 turbines/up to 150m in height to blade tip)

¹ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)



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2.2 LCT 1: The Fens Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.2.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment²:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
1: The Fens	1A: Ouse Floodplain Fens 1B: Cow Fen 1C: Bare Fen to Fildwell Fen 1D: North Fen to Milton Fen 1E: Fulbourn Fen

- 2.2.2 There are currently two operational wind energy developments within LCT 1:

- Meadow Road Willingham – 1 x 20KW turbine 27m to blade tip in height located within LCA 1C: Bare Fen to Fildwell Fen (a small single turbine for the purposes of this assessment)
- Fen End Farmhouse Cottenham – 1 x 6KW turbine 18m to blade tip in height located within LCA 1C: Bare Fen to Fildwell Fen (a small single turbine for the purposes of this assessment)

- 2.2.3 There are currently no operational wind energy developments in adjacent local authority areas that are likely to have significant inter-visibility with LCT 1: The Fens.

² See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

LCT 1: The Fens Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: • Flat, low lying fen landscape • Vertical features which are prominent in the flat landscape include telegraph poles, masts, two small single turbines in LCA 1C, and the pylon lines in LCA 1D: North Fen to Milton Fen • Simple pattern of regular, rectangular arable fields • Extensive, large scale landscape Natural factors that make the landscape more susceptible to the development scenario: • Fields are defined by a complex hierarchy of rivers, streams, lodes, drains and ditches, as well as tracks and droveways • Mosaic of wetland habitats including fens, reedbed, wet woodland and patches of grazing marsh • Distinctive pattern of lakes in LCA 1A: Ouse Floodplain Fens • Skylines in LCA 1A: Ouse Floodplain Fens, 1B: Cow Fen and 1C: Bare Fen to Fildwell Fen occasionally feature landmark human scale church spires within villages located in LCT 2: Fen Edge Claylands • Haphazard pattern of human scale features including scattered farms and agricultural buildings and occasional church spires
Cultural Factors	Cultural factors that make the landscape more susceptible to the development scenario: • Complex landscape of drained fenland, with lodes recognised as historic monuments and an elaborate system of drains, tracks and droveways which give time depth to the landscape • Common land in LCA 1E: Fulbourn Fen includes Great Wilbraham Common
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: • Strong sense of enclosure associated with restored wetlands in LCA 1A: Ouse Floodplain Fens • Ongoing mineral extraction in the north of LCA 1A: Ouse Floodplain Fens erodes the sense of tranquillity Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario:

Criteria	Susceptibility
	• Strong sense of openness due to generally sparse tree cover and limited hedgerows • Generally strong rural character and tranquillity associated with the expansive, low-lying landform and limited settlement
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • Strong landscape character associated with the distinctive hierarchy of drainage channels, regular field pattern and limited settlement with sparse tree cover • Lowland fens are generally limited to this LCT, and considered rare in Greater Cambridge • The hierarchy of rivers, lodes and drains are distinctive and valued as influencing the character of this LCT • Time depth associated with features such as historic droveways, lodes and drains • Natural value of Cam Washes SSSI, Stow-cum-Quy Fen SSSI, Wilbraham Fens SSSI, Wilbraham Common SSSI, the River Great Ouse County Wildlife Site (CWS), Fen Drayton Graven Pits CWS, Middle Fen CWS, River Cam CWS, Little Wilbraham River CWS, Chear Lode CWS and Engine Drain CWS, as well as a mosaic of wetland habitats • Recreational value of PROW including the Pathfinder long distance walk in LCA 1A: Ouse Floodplain Fens and 1B: Cow Fen, the Fen Rivers Way long distance walk and National Cycle Network Routes 11 and 51, the Harcamlow Way long distance walk in LCA 1E: Fulbourn Fen, Cow Hollow Wood in LCA 1D: North Fen to Milton Fen, commons in LCA 1E and a small number of nature reserves with public access including Fen Drayton Lakes Nature Reserve and Mare Fen Nature Reserve in LCA 1A: Ouse Floodplain Fens • Distinctive landscape with a generally strong rural character and sense of tranquillity • Locally valued expansive, open views across the flat landscape with large, dramatic skies, towards church spires within villages set on higher ground in LCT 2: Fen Edge Claylands • Valued views from the Fen Rivers Way and Pathfinder Long distance paths
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the

Criteria	Susceptibility
	Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This is an open landscape, which has potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 1: The Fens that may give rise to cumulative effects in combination with existing wind energy developments in this LCT. There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.2.4 In summary, this LCT is a distinctive fen landscape. Key characteristics which are more susceptible to the development scenario include the openness of the low lying fens, the strong rural character and sense of tranquillity, the network of watercourses and historic drainage channels that provide valuable networks of wetland habitat, and locally valued expansive, open views. Key characteristics which are less susceptible to the wind energy development scenarios are the large scale and generally simple arable field pattern. The overall landscape sensitivity of LCT 1: The Fens to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Low Key characteristics and valued attributes are less likely to be adversely affected by the particular type and scale of change being assessed. Change can potentially be accommodated without undue negative consequences.	None
Large single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Small-scale wind farm	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	None
Medium-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.3 LCT 2: Fen Edge Claylands Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.3.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment³:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
2: Fen Edge Claylands	2A: Longstanton Fen Edge Claylands 2B: Cottenham Fen Edge Claylands

- 2.3.2 There is currently one operational wind energy developments within LCT 2: Fen Edge Claylands:

- Denny Lodge Business Park – 3 x turbines 25m to blade tip in height located within LCA 2B: Cottenham Fen Edge Claylands (a small scale wind farm for the purposes of this assessment)

- 2.3.3 There are currently four operational wind energy developments in adjacent local authority areas (Huntingdonshire District) that are likely to have significant inter-visibility with LCT 2: Fen Edge Claylands:

- Cotton Farm Windfarm – 8 x turbines 125m to blade tip in height (a medium scale wind farm for the purposes of this assessment)
- Kingsbush Farm – 1 x turbine (height to blade tip unknown)
- Littlebury Farm – 1 x turbine 46.3m to blade tip in height (a large single turbine for the purposes of this assessment)

³ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

- Land east of Cardinal Business Park and North of Kings Bush Farm – 1 x turbine 100m to blade tip in height (a large single turbine for the purposes of this assessment)

LCT 2: Fen Edge Claylands Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: • Low lying, gently undulating landform with historic villages on 'islands' of higher ground that gradually rises to the south from the edge of LCT 1: The Fens, and is drained by small, generally indistinct streams • Predominantly simple, arable landscape with little vegetation cover, limited to dispersed fragments of deciduous woodland, scattered traditional orchards and gappy hedgerows • Large scale, open field system defined by a hierarchy of drains, ditches and lodes • Skylines are broken by pylons, poles and wires associated by the telecommunications network in addition to several wind turbines including the eight x 125m in height to blade tip turbines at Cotton Farm Windfarm in the west of LCA 2A: Longstanton Fen Edge Claylands, the three single turbines north of the A14 which read as a cluster in also in the west of LCA 2A: Longstanton Fen Edge Claylands, and the three x 25m to blade tip turbines in the small scale wind farm at Denny Lodge Business Park, in LCA 2B: Cottenham Fen Edge Claylands Natural factors that make the landscape more susceptible to the development scenario: • Small scale pastoral field patterns around villages, with distinctive localised patterns of hedgerows, shelterbelts, orchards and small clumps of trees • Frequent human scale features including church spires, buildings, trees and gappy hedgerows • Occasional church spires within well treed historic villages are landmarks on the skyline
Cultural Factors	Cultural factors that make the landscape more susceptible to the development scenario: • Time depth associated with the network of historic ditches and doveways and occasional pockets of remnant parkland in LCA 2B: Cottenham Fen Edge Claylands
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario:

Criteria	Susceptibility
	- Limited sense of tranquillity in the well settled landscape north of Cambridge which includes the A14, A10, commuter settlements commercial/industrial sites and former RAF bases including landing strips and former buildings Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario: - Strong sense of openness in the large scale arable landscape with sparse vegetation, with localised visual enclosure generally close to villages - Whilst the sense of tranquillity is generally limited, there are pockets in the north where there is a strong sense of tranquillity
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape less susceptible to the development scenario: - Commonplace arable landscape with few distinguishing features and moderate strength of character - Limited geological, topographical or geomorphological value Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: - Contribution made by the southern section of LCA 2B: Cottenham Fen Edge Claylands to the rural setting of Cambridge, part of the defining character of the city - Historic landscape patterns of drains and droveways are valued - Generally not an ecologically rich area, however natural value associated with several dispersed, generally small sites including Fen Drayton Gravel Pits County Wildlife Site (CWS), Swavesey Meadows CWS, Ashley Farm Orchard CWS, Landbeach Pits Willow Wood CWS, Beach Ditch and Engine Drain CWS, Cambridge Road Willow Pollards CWS and Madingley Brickpits CWS - Recreational value of PROW, including the Pathfinder Long Distance Walk and the National Cycle Network Route 51 which follows the route of the Cambridgeshire Guided Busway in LCA 2A: Longstanton Fen Edge Claylands, National Cycle Network Route 11 east of Milton, National Cycle Network Route 24 north of Girton and Milton Country Park - Strong open, rural character - Locally valued long, open views across arable farmland towards church spires within Fen Edge villages against large, dramatic skies

Criteria	Susceptibility
	Locally valued views from the Pathfinder Long Distance Walk
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This is an open landscape, which has potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 2: Fen Edge Claylands that may give rise to cumulative effects in combination with existing wind energy developments in this LCT. There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.3.4 In summary, this is a large scale, arable landscape with a dispersed pattern of historic villages, farms and cottages on higher ground. Key characteristics which are more susceptible to the wind energy development scenarios include the small scale, pastoral field systems around villages and pattern of traditional orchards, occasional church spire landmarks on the skyline, pockets in the north where there is a strong sense of tranquillity and strong sense of openness. There is localised higher susceptibility in the southern section of LCA 2B: Cottenham Fen Edge Claylands which contributes to the rural setting of Cambridge, part of the defining character of the city. Key characteristics

which are less susceptible to the wind energy development scenarios include the gently undulating landform, existing vertical features on the skyline, the simple, arable landcover pattern, and generally limited sense of tranquillity. The landscape sensitivity of the Fen Edge Claylands to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Low Key characteristics and valued attributes are less likely to be adversely affected by the particular type and scale of change being assessed. Change can potentially be accommodated without undue negative consequences.	None
Large single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Small-scale wind farm	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Medium-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.4 LCT 3: Lowland Farmlands Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.4.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment⁴:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
3: Lowland Farmlands	3A: Croxton Lowland Farmlands 3B: Bourn Tributaries Lowland Farmlands 3C: Rhee Tributaries Lowland Farmlands 3D: Cam & Granta Tributaries Lowland Farmlands

- 2.4.2 There are currently three operational wind energy developments within LCT 3: Lowland Farmlands:

- Bassingbourn Community Primary School – 1 x 5KW turbine 18m in height to blade tip located within LCA 3C: Rhee Tributaries Lowland Farmlands (a small single turbine for the purposes of this assessment)
- Brook Barn, Barrington – 1 x 330KW turbine 8.5m in height to blade tip located within LCA 3C: Rhee Tributaries Lowland Farmlands (a small single turbine for the purposes of this assessment)
- Dales Manor Business Park, Sawston – 1 x turbine 14m in height to hub located within LCA 3D: Cam & Granta Tributaries Lowland Farmlands (a small single turbine for the purposes of this assessment)

- 2.4.3 There are currently no operational wind energy developments in adjacent local authority areas that are likely to have significant inter-visibility with LCT 3: Lowland Farmlands.

⁴ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

LCT 3: Lowland Farmlands Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: • Low-lying, gently rolling topography crossed by river corridors and drained by small streams which are often visually indistinct • Intensively farmed, predominantly arable landcover pattern with some large and very large fields, sparse woodland and a fragmented network of hedgerows • Large scale landscape Natural factors that make the landscape more susceptible to the development scenario: • Skylines are generally undeveloped, often including landmark church spires within wooded villages, and in LCTs 3B: Bourn Tributaries Lowland Farmlands, 3C: Rhee Tributaries Lowland Farmlands and 3D the distinctive rising landform of the Chalk Hills • Radio telescopes are distinctive landmarks on the skyline in LCA 3B: Bourn Tributaries Lowland Farmlands • Tree cover is provided by distinctive treed watercourses and around settlements and farmsteads, including scattered woodland and occasional orchards • Human scale features include historic villages, farms and trees and occasional fragmented hedgerows • Landcover pattern in proximity to rivers and streams is diverse and includes pasture, wet woodland and grassland
Cultural Factors	Cultural factors that make the landscape less susceptible to the development scenario: • Generally an intensively farmed arable landscape with limited time depth Cultural factors that make the landscape more susceptible to the development scenario: • Time depth associated with occasional parkland, Ermine Street Roman Road, and medieval agricultural systems visible in the landscape through the survival of ridge and furrow in places

Criteria	Susceptibility
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: • Localised, more intimate landscape at settlement edges due to woodland and tree cover, particularly in LCA 3D: Cam & Granta Tributaries Lowland Farmlands where settlement is denser, and the character is more visually enclosed than elsewhere in the LCT • Generally eroded sense of tranquillity due to this being a well settled landscape with a relatively dense rural settlement pattern of large and small villages, solar farms in LCAs 3B: Bourn Tributaries Lowland Farmlands and 3C: Rhee Tributaries Lowland Farmlands, and major transport routes including the M11, A10 and A1198 along the line of Ermine Street Roman Road Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario: • Generally open character and extensive views
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape less susceptible to the development scenario: • Moderate strength of character associated with the intensively farmed, often busy rural landscape with few distinguishing features • Generally limited geological, topographical and geomorphological value Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • Historic landscape value associated with occasional parklands • The eastern part of LCA 3B: Bourn Tributaries Lowland Farmlands and the northern part of LCA 3D: Cam & Granta Tributaries contribute to the rural setting of Cambridge, part of the defining character of the city • Natural value associated with a handful of SSSI including Fowlmere Watercress Beds, and County Wildlife Sites, including the courses of the River Cam/Rhee and Bourn Brook and several tributary streams • Recreational value of a large number of PROW, including the Harcamlow Way long distance path, which link settlements, through parklands and across river valleys and National Cycle Network Route 11 • Recreational value of a small number of visitor sites and attractions within this LCT, including Coton Countryside Reserve in LCA 3B: Bourn Tributaries Lowland

Criteria	Susceptibility
	Farmlands, Fowlmere Nature Reserve in LCA 3C: Rhee Tributaries Lowland Farmlands and Trumpington Meadows Country Park on the southwest edge of Cambridge in LCA 3D: Cam & Granta Tributaries Lowland Farmlands • Recreational value of University sports grounds in LCA 3B: Bourn Tributaries Lowland Farmlands • Generally limited scenic value associated with the large scale arable farmlands, and solar farms in LCAs 3B: Bourn Tributaries Lowland Farmlands and 3C: Rhee Tributaries Lowland Farmlands • Generally locally valued open and expansive views across large arable fields, including into Huntingdonshire from LCA 3A: Croxton Lowland Farmlands, and towards the rising landform of the Chalk Hills from LCAs 3B: Bourn Tributaries Lowland Farmlands, 3C: Rhee Tributaries Lowland Farmlands and 3D: Cam & Granta Tributaries Lowland Farmlands • Locally valued views towards the distinctive radio telescopes on the skyline in LCA 3B: Bourn Tributaries Lowland Farmlands
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This is a generally open landscape, which has potential for a greater likelihood of cumulative effects between solar PV energy developments. There are currently no proposed wind energy developments within LCT 3: Lowland Farmlands that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

Criteria	Susceptibility
	There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.4.4 In summary, this is an intensively farmed, low lying, gently rolling rural landscape. Key characteristics which are more susceptible to the wind energy development scenarios include the generally open character and landmark skyline features including church towers and the distinctive radio telescopes in LCA 3B: Bourn Tributaries Lowland Farmlands. There is recreational value associated with the PROW network, including the Harcamlow Way, several Nature Reserves, and Trumpington Country Park. Finally, there is natural value associated with several SSSI, CWS, and small woodlands often focussed on the edges of village settlements and in proximity to watercourses. There is localised higher susceptibility to the development scenario in the western part of LCA 3B: Bourn Tributaries Lowland Farmlands and in the northern part of LCA 3D: Cam & Granta Tributaries Lowland Farmlands, due to the contribution they make to the rural setting of Cambridge, part of the defining character of the city. Key characteristics which are less susceptible to the wind energy development scenarios include the gently rolling landform, the large scale, arable farmland and eroded sense of tranquillity within the well settled landscape. The landscape sensitivity of the Lowland Farmlands to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Low Key characteristics and valued attributes are less likely to be adversely affected by the particular type and scale of change being assessed. Change can potentially be accommodated without undue negative consequences.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Large single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Small-scale wind farm	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Medium-scale wind farm	Medium to high Key characteristics and valued attributes of the landscape are susceptible to the particular type and scale of change being assessed. Considerable care would be needed in locating and designing change within the landscape.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.5 LCT 4: Wooded Claylands Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.5.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment⁵:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
4: Wooded Claylands	4A: Croxton to Conington Wooded Claylands 4B: Lolworth to Longstowe Wooded Claylands 4C: Hatley Wooded Claylands 4D: West Wrating Wooded Claylands 4E: West Wickham Wooded Claylands 4F: The Camps Wooded Claylands

- 2.5.2 There are currently four operational wind energy developments within LCT 4: Wooded Claylands:

- Back Lane, Cambourne – 1 x 15kW turbine 20m in height to blade tip located within LCA 4A: Croxton to Conington Wooded Claylands (a small single turbine for the purposes of this assessment)
- High Street Graveley – 1 x turbine (height to blade tip unknown) located within LCA 4A : Croxton to Conington Wooded Claylands
- Castle Farm, Gamlingay – 1 x 330kW turbine 53.5m in height to blade tip located within LCA 4C: Hatley Wooded Claylands (a large single turbine for the purposes of this assessment)

⁵ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

- Hill Farm, Castle Camps – 3 x 5kW turbines 20.5m in height to blade tip located within LCA 4F: The Camps Wooded Claylands (a small scale wind farm for the purposes of this assessment)

2.5.3 There are currently four operational wind energy developments in adjacent local authority areas (Huntingdonshire District) that are likely to have significant inter-visibility with LCT 4: Wooded Claylands:

- Cotton Farm Windfarm – 8 x turbines 125m to blade tip in height (a medium scale wind farm for the purposes of this assessment)
- Kingsbush Farm – 1 x turbine (height to blade tip unknown)
- Littlebury Farm – 1 x turbine 46.3m to blade tip in height (a large single turbine for the purposes of this assessment)
- Land east of Cardinal Business Park and North of Kings Bush Farm – 1 x turbine 100m to blade tip in height (a large single turbine for the purposes of this assessment)

LCT 4: Wooded Claylands Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: - Occasional vertical features interrupting the skyline include telegraph poles, pylons, lines of poplar trees and wind turbines at Wadlow Windfarm in LCA 7A: Eastern Chalk Hills which are visible on the skyline in LCAs 4D: West Wrating Wooded Claylands, 4E: West Wickham Wooded Claylands and 4F: The Camps Wooded Claylands - Intensively managed productive rural landscape that is predominantly arable farmland Natural factors that make the landscape more susceptible to the development scenario: - Generally gently rolling, elevated landscape - Minor streams that create shallow depressions or valleys that contribute to the undulating character of the landform - Skylines feature occasional human scale landmark features including windmills and church spires - Areas of naturalistic landcover including grassland, a number of parklands and substantial areas of deciduous and mixed woodland across the plateau - Varying scale and complexity with field sizes varying from small scale, sub-regular and sinuous fields to areas of planned geometric fields, with small scale field patterns being particularly noticeable in LCAs 4D: West Wrating Wooded Claylands, 4E: West Wickham Wooded Claylands and 4F: The Camps Wooded Claylands - Village edges tend to have small scale fields, paddocks, orchards, woodlands and human scale clumps of trees at their edges
Cultural Factors	Cultural factors that make the landscape more susceptible to the development scenario: - Strong sense of time depth provided by the evidence of medieval settlement, moated sites and several designated sites including a number of historic parks and gardens - An historic, irregular field pattern, which is particularly distinctive in LCAs 4D: West Wrating Wooded Claylands, 4E: West Wickham Wooded Claylands and 4F: The Camps Wooded Claylands, and the distinctive earth bank features associated with remnant hedge and field boundaries in LCA 4F: The Camps Wooded Claylands

Criteria	Susceptibility
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: • Localised sense of enclosure provided by hedgerows and woodlands • Sense of tranquillity is weakened in places by the presence of dual carriageways, the planned settlement of Cambourne and occasional large agricultural buildings Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario: • A relatively open landscape, with wooded horizons • Sense of openness created by removal of hedgerow boundaries have been removed and heavily trimmed in places, and fields are often open or bound by ditches and roadside verges contribute to the LCT feeling open • Settlement pattern of small vernacular villages and dispersed farms contributes to a generally strong sense of tranquillity away from major roads, which is particularly strong in LCAs 4D: West Wrating Wooded Claylands, 4E: West Wickham Wooded Claylands and 4F: The Camps Wooded Claylands
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape less susceptible to the development scenario: • Occasional dual carriageways locally erode perceptions of tranquillity Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • Strong character associated with the undulating, elevated landform and woodland blocks including ancient woodland in generally good condition • Semi natural and ancient woodland and the presence of medieval settlement are relatively rare within Greater Cambridge • Topographical and geomorphological value of the gently undulating, elevated landform • Time depth associated with medieval settlements, particularly in the west, including earthworks, green lanes and moated sites, as well as a number of historic parks and gardens and an historic, irregular field pattern • Natural value associated with woodland cover and occasional hedgerow boundaries providing continuity of vegetation within the predominantly arable LCT • Natural value is indicated by a small number of woodlands which are designated Sites of Special Scientific Interest (SSSI), and a number of grass verges,

Criteria	Susceptibility
	woods and parkland designated as County Wildlife Sites (CWS) • Recreational value of several publicly accessible woodlands and nature reserves connected by the PROW network which includes the Harcamlow Way, Wimpole Way, Clopton Way and Pathfinder Long distance paths • Generally strong sense of tranquillity away from the highway network • Valued views towards the historic skyline of Cambridge from a high point at Coton Countryside Reserve in LCA 4B: Lolworth to Longstowe Wooded Claylands and from Madingley Wood in LCA 4A: Croxton to Conington Wooded Claylands are marked on OS mapping • Valued views from the American Cemetery in LCA 4A: Croxton to Conington Wooded Claylands into the gently undulating arable countryside • Valued long distance views towards Ely from LCA 4D: Hatley Wooded Claylands • Views occasionally feature historic church spires within a rural context, and there are views from the Harcamlow Way, Wimpole Way Clopton Way and Pathfinder Long distance paths
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands/hedgerows to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This is a relatively open landscape, which has potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 4: Wooded Claylands that may give rise to

Criteria	Susceptibility
	cumulative effects in combination with existing wind energy developments in this LCT. There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.5.4 Overall, the openness of the undulating rural landscape, the strong sense of time depth, natural value and recreational value make LCT 4: Wooded Claylands more susceptible in landscape and visual terms to wind energy development scenarios. Less susceptible to the wind energy development scenarios are the large scale, simple arable farmland, the localised sense of visual enclosure due to woodland, and the eroded sense of tranquillity in proximity to major roads. The strong sense of tranquillity and distinctive, small scale historic field pattern in LCAs 4D: West Wrattling Wooded Claylands, 4E: West Wickham Wooded Claylands, 4F: The Camps Wooded Claylands increases the sensitivity in these areas to some development scenarios. The landscape sensitivity of the Wooded Claylands to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Large single turbine	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	None
Small-scale wind farm	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	None
Medium-scale wind farm	Medium to high Key characteristics and valued attributes of the landscape are susceptible to the particular type and scale of change being assessed. Considerable care would be needed in locating and designing change within the landscape.	LCA 4D: West Wratting Wooded Claylands, 4E: West Wickham Wooded Claylands and 4F: The Camps Wooded Claylands High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.6 LCT 5: Wooded Greensand Ridge Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.6.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment⁶:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
5: Wooded Greensand Ridge	5A: Gamlingay Wooded Greensand Ridge

- 2.6.2 There are currently no operational wind energy developments within LCT 5: Wooded Greensand Ridge.
- 2.6.3 There are currently no operational wind energy developments in adjacent local authority areas that are likely to have significant inter-visibility with LCT 5 : Wooded Greensand Ridge.

⁶ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

LCT 5: Wooded Greensand Ridge Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: • Skylines are often wooded, but include occasional masts and poles associated with the communications network, and a wind turbine that is 37m in height to blade tip located at Castle Farm, Gamlingay within LCA 4C: Hatley Wooded Claylands to the south east Natural factors that make the landscape more susceptible to the development scenario: • Prominent, narrow sandstone ridge rising from c. 35m AOD to c. 60m AOD that is drained by small streams • Prominent wooded ridgeline creating a distinctive skyline to the lower lying Wooded Claylands to the east • Diverse landcover pattern comprising woodland, including ancient woodland, meadow, mixed farmland and heathland • Small scale landscape, particularly in the west, where there are scattered human scale features associated with the village of Gamlingay including trees, hedgerows and buildings, and a strong sense of enclosure due to woodland and parkland
Cultural Factors	Cultural factors that make the landscape more susceptible to the development scenario: • Historic landscape character associated with remnant estate parkland landscapes including earthworks, woodland and parkland west of Gamlingay, linking west to Woodbury Park
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: • The landscape is more open and larger scale in the northeast, with large fields and limited hedgerows Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario: • Generally strong sense of enclosure due to woodland and parkland • Generally limited sense of tranquillity due to the presence of the village of Gamlingay, a number of hamlets, small clusters of properties and individual farms

Criteria	Susceptibility
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • Strong landscape character as a result of its distinct and recognisable settled, wooded ridgeline and strong sense of enclosure • The distinctive wooded ridgeline and strong sense of enclosure are rare in Greater Cambridge • High topographical value associated with the shape and scale of the distinctive ridgeline • Historic landscape value associated with remnant parkland and significant areas of ancient woodland • Recreational value of part of the Clopton Way long distance route, which links between Gamlingay and Wimpole Hall, as well as Gamlingay Cinques and Gamlingay Wood which are publicly accessibly, and a small number of PROW • High natural value associated with heathland, ancient woodland including Gamlingay Wood SSSI and County Wildlife Sites including Gamlingay Cinques, Gamlingay Heath Plantation and New Barn Grassland
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This a landscape which generally has a strong sense of enclosure, with limited potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 5: Wooded Greensand Ridge that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

Criteria	Susceptibility
	There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.6.4 In summary, this LCT is a settled wooded ridgeline with a distinctive, wooded character. It is a relatively small area, which extends west into Central Bedfordshire. Key characteristics which are susceptible to the wind energy development scenarios include the distinctive wooded ridgeline visible from LCT 4: Wooded Claylands, the diverse landcover pattern, historic landscape value associated with remnant parkland and high natural value associated with ancient woodland including at Gamlingay Woods and several County Wildlife Sites. Less susceptible to the development scenarios are the intimate landscape with a strong sense of enclosure due to woodland, and the limited sense of tranquillity in the well settled LCT. The landscape sensitivity of the Wooded Greensand Ridge to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Large single turbine	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	None
Small-scale wind farm	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	None
Medium-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.7 LCT 6: Fen Edge Chalklands Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.7.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment⁷:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
6: Fen Edge Chalklands	6A: Fen Ditton Fen Edge Chalklands 6B: Wilbraham Fen Edge Chalklands 6C: Fulbourn Fen Edge Chalklands

- 2.7.2 There are currently no operational wind energy developments within LCT 6: Fen Edge Chalklands.
- 2.7.3 There are currently no operational wind energy developments in adjacent local authority areas that are likely to have significant inter-visibility with LCT 6: Fen Edge Chalklands.

⁷ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

LCT 6: Fen Edge Chalklands Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: • Low lying, gently undulating landform dissected by small streams • Simple, predominantly arable landcover pattern dominated by late enclosures interspersed with small woodlands and shelterbelts on higher land and low hedge or ditch boundaries • Vertical features on the skyline include pylon lines to the northeast and east of the city, the wind turbines at Wadlow Windfarm, telegraph poles and masts which are very prominent in the gently undulating landscape • Large scale landscape Natural factors that make the landscape more susceptible to the development scenario: • Generally limited woodland cover, however vegetation comprises orchards, scattered copses and shelterbelts across higher landform, and a concentration of woodland around settlements forming part of remnant parkland landscape • Human scale features include small villages, trees and hedges
Cultural Factors	Cultural factors that make the landscape more susceptible to the development scenario: • Generally limited time depth in the intensively managed arable land however there is historic landscape value associated with parkland landscapes in proximity to the historic villages, and Fleam Dyke Anglo-Saxon earthwork
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: • Eroded sense of tranquillity in LCA 6A: Fen Ditton Fen Edge Chalklands in proximity to highways including the A14 and A1303, the large village of Fulbourn, Cambridge and Cambridge Airport Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario: • Generally open landscape with long views across large fields • Generally strong sense of tranquillity in the rural landscape with small villages

Criteria	Susceptibility
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape less susceptible to the development scenario: • Moderate strength of character associated with the commonplace rural arable landscape with few distinguishing features • Generally limited geological, topographical and geomorphological value Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • Generally limited time depth in the intensively managed arable land however there is historic landscape value of parkland and the Fleam Dyke earthwork • The western parts of LCA 6A: Fen Ditton Fen Edge Chalklands and LCA 6C: Fulbourn Fen Edge Chalklands contribute to the rural setting of Cambridge, part of the defining character of the city • Generally limited ecological value, however there is natural value associated with scattered features including Fleam Dyke SSSI, Fulbourn Fen SSSI and a small number of County Wildlife Sites including grassland and hedges at Low Fen Drove, roadside verges along Airport Way in Teversham and Fleam Dyke Pumping Station • Recreational value of Fulbourn Fen Nature Reserve, PROW including the Harcamlow Way long distance path and National Cycle Network Route 51 • Locally valued long views across the open, arable landscape, including views towards Cambridge and panoramic views encompass the rising Chalk Hills to the south from LCA 6B: Wilbraham Fen Edge Chalklands • Valued views from the Harcamlow Way, which passes along Fleam Dyke
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and

Criteria	Susceptibility
	link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This is a generally open landscape, which has potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 6: Fen Edge Chalklands that may give rise to cumulative effects in combination with existing wind energy developments in this LCT. There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.7.4 In summary, this is an intensively managed, gently undulating landscape. Key characteristics more susceptible to the wind energy development scenarios include the sense of tranquillity, strong rural character and openness of the landscape, long open views, including views towards Cambridge, scattered features of historic and natural value including Fleam Dyke and small historic villages with parkland estates. There is localised higher susceptibility to the development scenario in the western parts of LCA 6A: Fen Ditton Fen Edge Chalklands and LCA 6C: Fulbourn Fen Edge Chalklands due to the contribution they make to the rural setting of Cambridge, part of the defining character of the city. Less susceptible is the undulating landform, the largely simple, large scale arable landcover pattern and locally eroded sense of tranquillity in proximity to settlement and highways. The landscape sensitivity of LCT 6: Fen Edge Chalklands to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Low Key characteristics and valued attributes are less likely to be adversely affected by the particular type and scale of change being assessed. Change can potentially be accommodated without undue negative consequences.	None
Large single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Small-scale wind farm	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Medium-scale wind farm	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.8 LCT 7: Chalk Hills Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.8.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment⁸:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
7: Chalk Hills	7A: Eastern Chalk Hills 7B: Gog Magog Chalk Hills 7C: Linton Chalk Hills 7D: Newton Chalk Hills 7E: Wimpole Chalk Hills 7F: Southern Chalk Hills

- 2.8.2 There is currently one operational wind energy development within LCT 7: Chalk Hills:

- Wadlow Windfarm - 13 x 2MW turbines 120m to blade tip in height located within LCA 7A: Eastern Chalk Hills (a medium-scale wind farm for the purposes of this assessment)

- 2.8.3 There are currently no operational wind energy developments in adjacent local authority areas that are likely to have significant inter-visibility with LCT 7: Chalk Hills.

⁸ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

LCT 7: Chalk Hills Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: - Occasional vertical features breaking the skyline including pylons, poles, communication masts, and wind turbines at Wadlow Windfarm in LCA 7A: Eastern Chalk Hills - Largely simple, large scale arable landcover pattern Natural factors that make the landscape more susceptible to the development scenario: - Locally distinctive hills, slopes and ridgelines with frequent dry valleys - Generally undeveloped skylines broken up by scattered blocks of woodland - Arable fields are supplemented by more complex landcover elements including broadly intact permanent pasture and woodland, including ancient semi natural woodland on steeper slopes - The varying scale and complexity of the landscape which encompasses varying field sizes from small scale, sub-regular and sinuous fields to areas of planned geometric fields - Scattered human scale features include buildings, trees and hedgerows - Small scale fields, paddocks, orchards, woodlands and at village edges
Cultural Factors	Cultural factors that make the landscape more susceptible to the development scenario: Time depth associated with tracks, hillforts, distinctive linear dykes and the registered historic park and garden at Wimpole Hall in LCA 7E: Wimpole Chalk Hills
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: - The A11, M11, a solar farm and Wadlow Windfarm both in LCA 7A: Eastern Chalk Hills locally reduce the sense of tranquillity - A combination of shelterbelts and rolling landform generally contain views within LCA 7A: Eastern Chalk Hills resulting in a less open landscape than elsewhere in the LCT Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario:

Criteria	Susceptibility
	• A relatively open landscape with a medium to large scale, regular field pattern defined by hedgerows in places • Sparsely settled landscape with a generally strong sense of tranquillity away from the A11 and M11
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • A landscape of strong character and generally in good condition • The northern part of LCA 7B: Gog Magog Chalk Hills contributes to the rural setting of Cambridge, part of the defining character of the city • Locally prominent and distinctive landform is considered rare • Strong time depth • Natural value associated with pasture, woodland, including ancient semi natural beech, remnants chalk grassland, well defined hedgerow and tree boundaries, several Sites of Special Scientific Interest associated with linear Roman features, at former pits/quarries and significant areas of Chalk Grassland and several County Wildlife Sites • Recreational value of a clusters of Public Rights of Way (PROW) associated with settlements and historic features including the E2 European Long Distance Route, the Icknield Way, Harcamlow Way, Clopton Way, Wimpole Way and Mare Way long distance paths • Recreational value of Wimpole Hall and Magog Down and Wandlebury Country Park within 7B: Gog Magog Chalk Hills • Distinctive landform and strong rural character combine to create scenic quality, alongside a strong sense of tranquillity away from the A11, M11 and Wadlow Windfarm • Valued views include long distance, panoramic views including views of significance to and from Cambridge from LCA 7B: Gog Magog Chalk Hills and more distant views from LCA 7D: Newton Chalk Hills, views towards Ely from LCA 7A: Eastern Chalk Hills, a view identified on the OS explorer map from Wandlebury Country Park towards Ely, also in LCA 7B: Gog Magog Chalk Hills and views from the Icknield Way and Harcamlow Way long distance path. • Locally valued long, open views across the Granta River Valley from LCAs 7C: Linton Chalk Hills and 7D: Newton

Criteria	Susceptibility
	Chalk Hills, and long, expansive views north from LCA 7F: Southern Chalk Hills
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This is a relatively open landscape, which has potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 7: Chalk Hills that may give rise to cumulative effects in combination with existing wind energy developments in this LCT. There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.8.4 Overall, this is a distinctive locally prominent, elevated landscape. Key characteristics which are more susceptible to the wind energy development scenarios include the strong rural character associated with the locally distinctive landform, the strong sense of time depth, the generally strong sense of relative tranquillity away from the A11 and M11, and valued long distance, panoramic views. Less susceptible are the large scale, simple arable field pattern, vertical features interrupting the skyline and eroding the sense of tranquillity including Wadlow Windfarm in LCA 7A: Eastern Chalk Hills. LCA 7B: Gog Magog Chalk Hills is more susceptible than elsewhere in the LCT due

to its high recreational, natural and historic landscape value, combined with its visual relationship with Cambridge and the contribution it makes to the rural setting of the city, part of the defining character of Cambridge. Shelterbelts and rolling landform combine to make LCA 7A: Eastern Chalk Hills more enclosed and thus less susceptible than elsewhere in the LCT. The landscape sensitivity of LCT 7: Chalk Hills to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Large single turbine	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	LCA 7A: Eastern Chalk Hills Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.
Small-scale wind farm	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing	LCA 7A: Eastern Chalk Hills Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
	change within the landscape.	still be needed in location and designing such change within the landscape.
Medium-scale wind farm	Medium to high Key characteristics and valued attributes of the landscape are susceptible to the particular type and scale of change being assessed. Considerable care would be needed in locating and designing change within the landscape.	LCA 7A: Eastern Chalk Hills Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape. LCA 7B: Gog Magog Chalk Hills High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.9 LCT 8: Lowland Chalklands Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.9.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment⁹:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
8: Lowland Chalklands	8A: Pampisford Lowland Chalklands 8B: Morden to Duxford Lowland Chalklands

- 2.9.2 There are currently no operational wind energy developments within LCT 8: Lowland Chalklands.
- 2.9.3 There are currently no operational wind energy developments in adjacent local authority areas that are likely to have significant inter-visibility with LCT 8: Lowland Chalklands.

⁹ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

LCT 8: Lowland Chalklands Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: • Low lying, gently rolling foothills of the Chalk Hills with a number of streams that cut shallow valleys into the landscape • Simple landcover pattern of intensively farmed medium to large arable fields with sparse woodland linked by hedges • Settled rural landscape with occasional interruptions to the skyline including monumental aircraft hangars at Duxford Airfield, large farm buildings, telegraph poles and pylons Natural factors that make the landscape more susceptible to the development scenario: • Human scale features include dispersed historic villages, church spires which are prominent landmarks on the horizon in LCA 8B: Morden to Duxford Lowland Chalklands, scattered copses and shelterbelts • Mixture of horticultural enterprises, glasshouses and grazing southwest of Great Abington in LCA 8A: Pampisford Lowland Chalklands has a distinctive, small scale field pattern
Cultural Factors	Cultural factors that make the landscape less susceptible to the development scenario: • Late enclosure, intensively farmed arable fields Cultural factors that make the landscape more susceptible to the development scenario: • Time depth associated with ancient routes, earthworks such as Brent Ditch and Roman sites/features including Ermine Street Roman Road and Worstead Street Roman Road, as well as parkland in LCA 8A: Pampisford Lowland Chalklands
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: • Generally strong sense of visual enclosure in LCA 8A due to trees and woodland associated with the Cam and Granta River Valleys in LCAs 9B: Cam River Valley and 9D: Granta River Valley • Tranquillity locally eroded by major roads including the M11, A11, A505 and A1307, and a dense settlement pattern alongside science and technology parks in LCA

Criteria	Susceptibility
	8A: Pampisford Lowland Chalklands along key routes into Cambridge Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario: • Strong sense of openness in LCA 8B: Morden to Duxford Lowland Chalklands • Generally strong rural character and tranquil, often remote rural landscape away from major roadways and extended villages in LCA 8B: Morden to Duxford Lowland Chalklands
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape less susceptible to the development scenario: • Moderate strength of character associated with the settled rural landscape comprising dispersed historic villages separated by open countryside and little tree cover • Commonplace, arable landcover • Limited geological topographical and geomorphological value Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • Historic landscape value associated with tracks, and green lanes, including the historic route of the Icknield Way • Natural value is generally limited, but does include a small number of SSSI including pockets of wet woodland, meadow and hummocky fields containing nationally rare species, as well as a small number of County Wildlife Sites including chalk pit, stretches of disused railway and intact hedgerow boundaries • Recreational value of PROW including the parts of the Icknield Way and Harcamlow Way long distance paths and National Cycle Network Route 11 • Recreational value of the Imperial War Museum at Duxford • Strong rural character and sense of tranquillity in LCA 8B: Morden to Duxford Lowland Chalklands, but this is eroded close to major roads and where the settlement pattern is denser in LCA 8A: Pampisford Lowland Chalklands • Locally valued open, expansive views across arable fields towards the rising chalk hills to the north-east and

Criteria	Susceptibility
	south in LCA 8B: Morden to Duxford Lowland Chalklands, including from the Icknield Way
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	LCA 8A generally has a strong sense of enclosure, with limited potential for a greater likelihood of cumulative effects between wind energy developments LCA 8B is a generally open landscape, which has potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 8: Lowland Chalklands that may give rise to cumulative effects in combination with existing wind energy developments in this LCT. There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.9.4 In summary, this is a low-lying, gently rolling LCT with a landcover pattern of medium to large sized intensively managed arable fields. Key characteristics which are more susceptible to the wind energy development scenarios include the strong sense of openness in LCA 8B: Morden to Duxford Lowland Chalklands, strong sense of tranquillity and rural character, strong time depth associated with parkland, visible historic earthworks and routes. Key

characteristics which are less susceptible to the wind energy development scenarios include the large scale, simple arable landcover pattern, generally limited natural value, the generally strong sense of visual enclosure in LCA 8A: Pampisford Lowland Chalklands. The landscape sensitivity of LCT 8: Lowland Chalklands to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Low Key characteristics and valued attributes are less likely to be adversely affected by the particular type and scale of change being assessed. Change can potentially be accommodated without undue negative consequences.	None
Large single turbine	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None
Small-scale wind farm	Medium to low Key characteristics and valued attributes have limited susceptibility to the particular type and scale of change being assessed. Although change can potentially be accommodated, care would still be needed in location and designing such change within the landscape.	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Medium-scale wind farm	Medium to high Key characteristics and valued attributes of the landscape are susceptible to the particular type and scale of change being assessed. Considerable care would be needed in locating and designing change within the landscape.	None
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

2.10 LCT 9: River Valleys Landscape Sensitivity Assessment

Landscape Character Baseline

- 2.10.1 The current landscape character baseline is provided by the descriptions of the following Landscape Character Type and its constituent Landscape Character Areas defined by the 2021 Greater Cambridge Landscape Character Assessment¹⁰:

Landscape Character Type (LCT)	Landscape Character Areas (LCA)
9: River Valleys	9A: Cam River Valley – Cambridge 9B: Cam River Valley 9C: Rhee River Valley 9D: Granta River Valley

- 2.10.2 There are currently no operational wind energy developments within LCT 9.
- 2.10.3 There are currently no operational wind energy developments in adjacent local authority areas that are likely to have significant inter-visibility with LCT 9.

¹⁰ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)

LCT 9: River Valleys Landscape Sensitivity Assessment

Criteria	Susceptibility
Natural Factors	Natural factors that make the landscape less susceptible to the development scenario: • Flat, low lying valley floors • Occasional vertical elements interrupting the flat skyline include chimneys, pylons, poles and masts, notably in LCAs 9A: Cam River Valley – Cambridge and 9D: Granta River Valley Natural factors that make the landscape more susceptible to the development scenario: • Generally undeveloped, wooded skylines, with occasional landmark church spires, and the Rivey Hill Water tower a landmark feature which can be seen on the skyline from LCA 9D: Granta River Valley • Complex and intricate mosaic landcover pattern including riparian trees, parkland, woodland, meadows, semi improved grasslands, rivers and waterbodies, notably Byron's Pool in LCA 9B: Cam River Valley • Frequent human scale features including buildings, church spires, trees and hedgerows • Small scale, historic landscape pattern, influenced by the rivers, and enclosed over time into a mosaic of riverine meadows
Cultural Factors	Cultural factors that make the landscape more susceptible to the development scenario: • Generally strong time depth associated with small scale meadows, historic parklands, notably in LCA 9D: Granta River Valley and commons in LCA 9A : Cam River Valley – Cambridge
Perceptual & Aesthetic Factors	Perceptual & aesthetic factors that make the landscape less susceptible to the development scenario: • Generally a strong sense of enclosure by trees and woodland Perceptual & aesthetic factors that make the landscape more susceptible to the development scenario: • Generally a tranquil, rural landscape, crated by the presence of water through the unsettled meadowlands, however this is eroded by major roads including the M11, A11 and A14

Criteria	Susceptibility
Landscape Value	Characteristics, features and qualities of landscape value that make the landscape less susceptible to the development scenario: • Generally limited number of PROW within the River Valleys away from the River Cam in LCAs 9A: Cam River Valley – Cambridge and 9B: Cam River Valley • Trunk roads and some suburban edges of large settlements occasionally, locally detract from the rural, peaceful, small-scale landscape Characteristics, features and qualities of landscape value that make the landscape more susceptible to the development scenario: • Strong and positive character associated with the rivers, meadows and wooded river valley floors • Wooded and river valley landscapes are rare in Greater Cambridge • The River Cam, Granta and Rhee are valued geomorphological features which have influenced the distinctive character of this LCT • Time depth associated with parkland, small scale historic meadow enclosure patterns, and the River Granta's past (LCA 9D: Granta River Valley) as an historic route into Cambridge scattered with small, historic villages • The River Cam, river banks and towpath in LCA 9A: Cam River Valley – Cambridge have strong historical and cultural associations with University life • Significant literary importance associated with Byron, Rupert Brook, other poets and more recently Pink Floyd, who were inspired by the Cam Valley around Grantchester Meadows in LCA 9B: Cam River Valley • Natural value associated with a variety of habitats including floodplain grazing marsh, deciduous woodland, semi-improved grassland, pockets of lowland fens and lowland meadows • Natural value associated with the river channels of the River Rhee, River Cam and River Granta, and some of the tributary streams that feed into them which are all designated as County Wildlife Sites • High recreational value in LCAs 9A: Cam River Valley – Cambridge and 9B: Cam River Valley where the River Cam is a valued feature in town and University life, used for rowing and punting, and as the setting for walks including along the E2 European Long Distance Route, the Fen Rivers Way and Harcamlow Way long distance paths, and for cycling along National Cycle Route 11 – all of which follow the River Cam north east towards LCT 1: The Fens

Criteria	Susceptibility
	• Recreational value of the River Cam in LCA 9A: Cam River Valley – Cambridge and 9B: Cam River Valley as well as common land such as Stourbridge Common and several small Local Nature Reserves (LNR) including Byron's Pool LNR and Sheep's Green and Coe Fen LNR • Recreational value of Grantchester Meadows, and the footpath to the west of the River Cam in LCA 9B: Cam River Valley which is well used for picnicking, informal punting and bathing • High scenic value associated with the intimate river valley • Valued contribution to the setting of Cambridge through the historic relationship between the city and its river and visual relationship with the city, particularly in LCA 9A: Cam River Valley – Cambridge and the north of LCA 9B: Cam River Valley, including long, framed views towards landmark towers and spires within the city • Valued views from Grantchester Meadow which are particularly special and evocative of Cambridge, and are part of the defining character of the city
Mitigation Potential	There is potential to mitigate the type and scale of change associated with the development scenario in this area by following the relevant landscape guidelines set out in the Greater Cambridge Landscape Character Assessment (2021) where appropriate. There may be scope for strategic landscape mitigation measures to help integrate development into the landscape (such as careful location of wind turbines to avoid undeveloped prominent hills, ridges and skylines by using undulating topography and woodlands/hedgerows to reduce visibility). The management and enhancement of existing hedgerows, re-planting hedgerows where these have been lost/become fragmented and consideration of opportunities to expand and link woodland, hedgerows and other semi-natural habitats to benefit biodiversity and manage key views across the rural landscape would be beneficial for strengthening local landscape character.
Potential Cumulative Effects	This a landscape which generally has a strong sense of enclosure, with limited potential for a greater likelihood of cumulative effects between wind energy developments. There are currently no proposed wind energy developments within LCT 9: River Valleys that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

Criteria	Susceptibility
	There are currently no proposed wind energy developments in adjacent local authority areas that may give rise to cumulative effects in combination with existing wind energy developments in this LCT.

2.10.4 Overall, this LCT is a small scale, enclosed landscape with a rich mosaic of woodland, parkland, meadow and riparian trees. Key characteristics which are more susceptible to the wind energy development scenarios include time depth associated with parkland and the historic field pattern and the strong, generally tranquil rural character. High recreational value associated with long distance paths along the River Cam in LCAs 9A: Cam River Valley – Cambridge and 9B: Cam River Valley, and highly valued views towards Cambridge from Grantchester Meadows in LCA 9B: Cam River Valley make these LCA's more susceptible than elsewhere in the LCT. Less susceptible are the flat topography, occasional vertical features interrupting the skyline and strong sense of enclosure. The landscape sensitivity of LCT 9: River Valleys to wind energy development scenarios is assessed as follows:

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
Small single turbine	Medium Key characteristics and valued attributes of the landscape have some susceptibility to the particular type and scale of change being assessed. Considerable care may be needed in locating and designing change within the landscape.	LCA 9A: Cam River Valley – Cambridge & 9B: Cam River Valley High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.
Large single turbine	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being	None

Development Scenario	Overall Landscape Sensitivity	Spatial Variations in Landscape Sensitivity
	assessed. Such change is likely to result in a significant change to character.	
Small-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Medium-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None
Very large-scale wind farm	High Key characteristics and valued attributes of the landscape are highly susceptible to the particular type and scale of change being assessed. Such change is likely to result in a significant change to character.	None

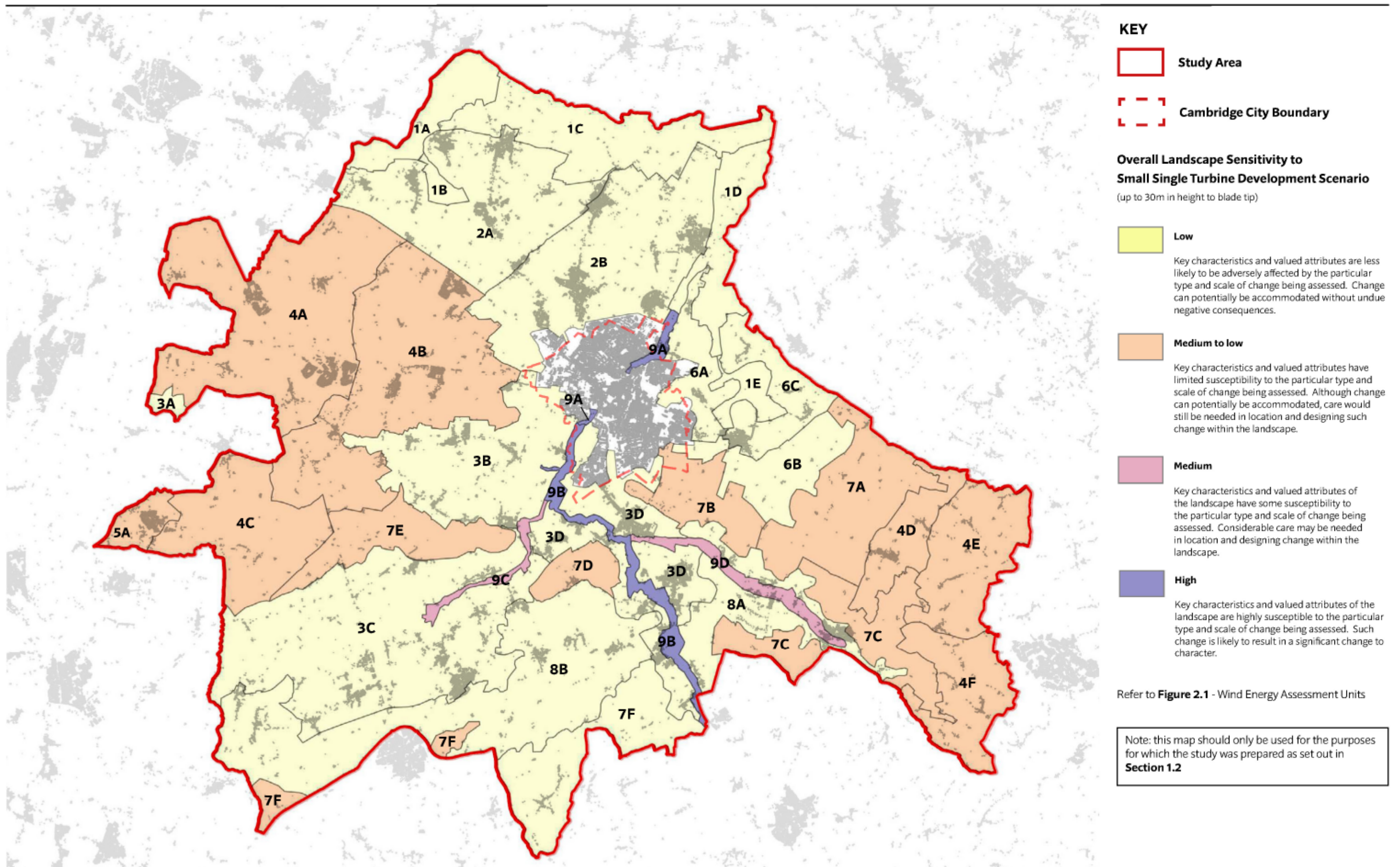
2.11 Summary of Key Findings

2.11.1 The key findings with respect to the relative landscape sensitivity of the Landscape Character Types in Greater Cambridge (as shown on **Figure 2.1**) to the wind energy development scenarios are summarised below on **Figures 2.2-2.7**.

Small Single Turbine (up to 30m in height to blade tip)

See **Figure 2.2**

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Low	None
LCT 2: Fen Edge Claylands	Low	None
LCT 3: Lowland Farmlands	Low	None
LCT 4: Wooded Claylands	Medium to low	None
LCT 5: Wooded Greensand Ridge	Medium to low	None
LCT 6: Fen Edge Chalklands	Low	None
LCT 7: Chalk Hills	Medium to low	None
LCT 8: Lowland Chalklands	Low	None
LCT 9: River Valleys	Medium	• LCA 9A: Cam River Valley – Cambridge - High • LCA 9B – Cam River Valley - High

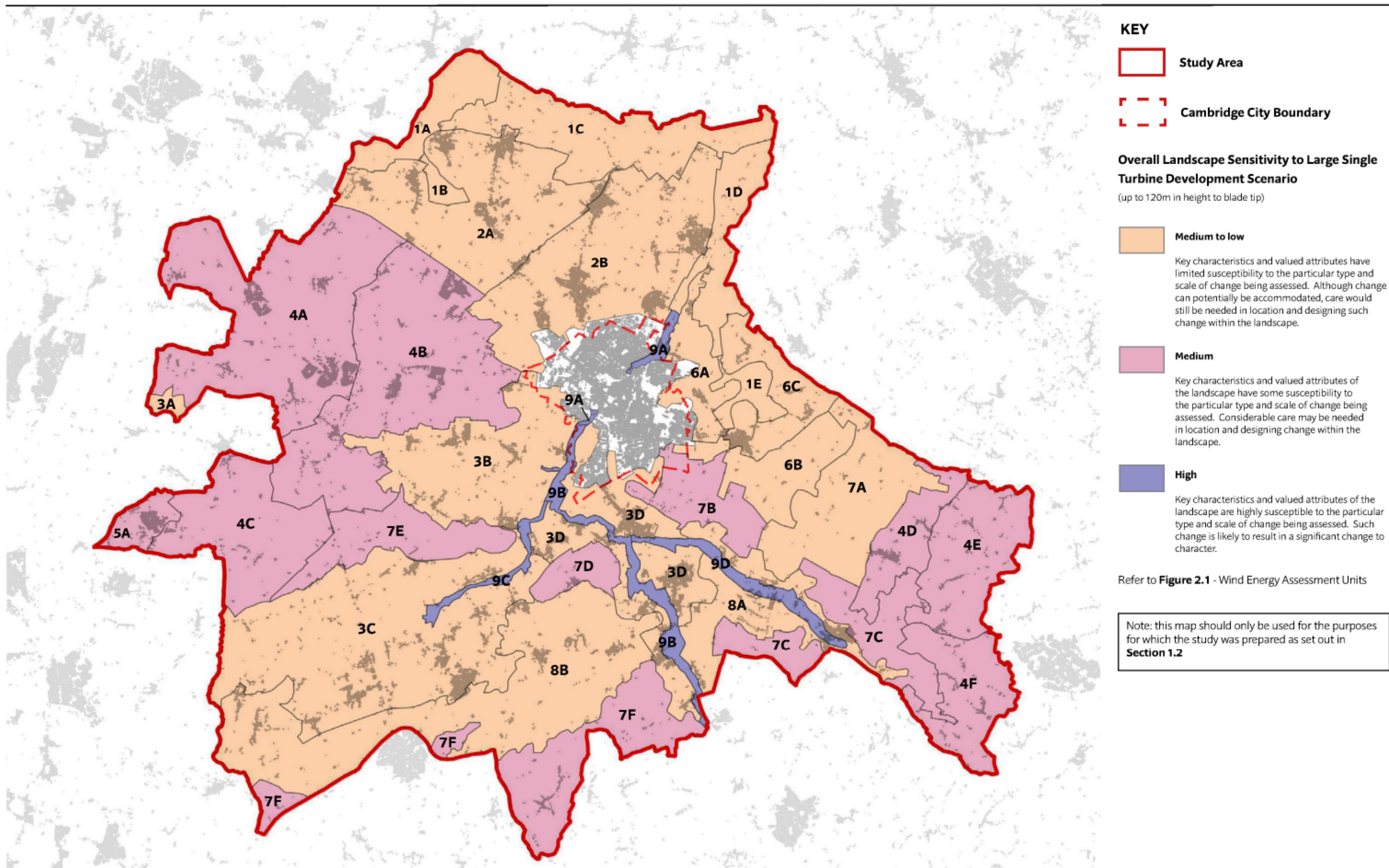


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Large Single Turbine (up to 120m in height to blade tip)

See **Figure 2.3**

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Medium to low	None
LCT 2: Fen Edge Claylands	Medium to low	None
LCT 3: Lowland Farmlands	Medium to low	None
LCT 4: Wooded Claylands	Medium	None
LCT 5: Wooded Greensand Ridge	Medium	None
LCT 6: Fen Edge Chalklands	Medium to low	None
LCT 7: Chalk Hills	Medium	• LCA 7A: Eastern Chalk Hills – Medium to low
LCT 8: Lowland Chalklands	Medium to low	None
LCT 9: River Valleys	High	None

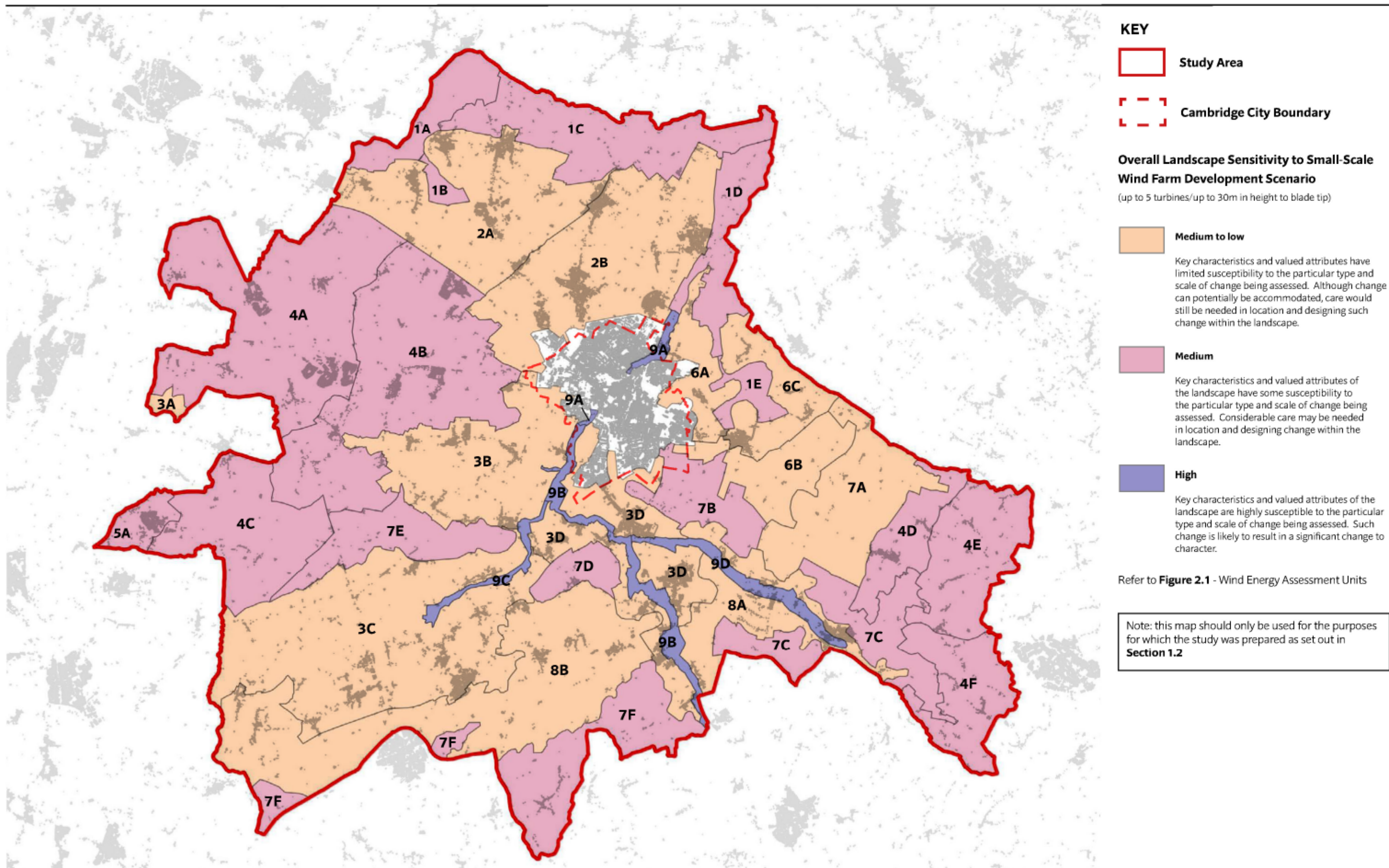


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Small-scale wind farm (up to 5 turbines/up to 30m in height to blade tip)

See **Figure 2.4**

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	Medium	None
LCT 2: Fen Edge Claylands	Medium to low	None
LCT 3: Lowland Farmlands	Medium to low	None
LCT 4: Wooded Claylands	Medium	None
LCT 5: Wooded Greensand Ridge	Medium	None
LCT 6: Fen Edge Chalklands	Medium to low	None
LCT 7: Chalk Hills	Medium	• LCA 7A: Eastern Chalk Hills – Medium to low
LCT 8: Lowland Chalklands	Medium to low	None
LCT 9: River Valleys	High	None

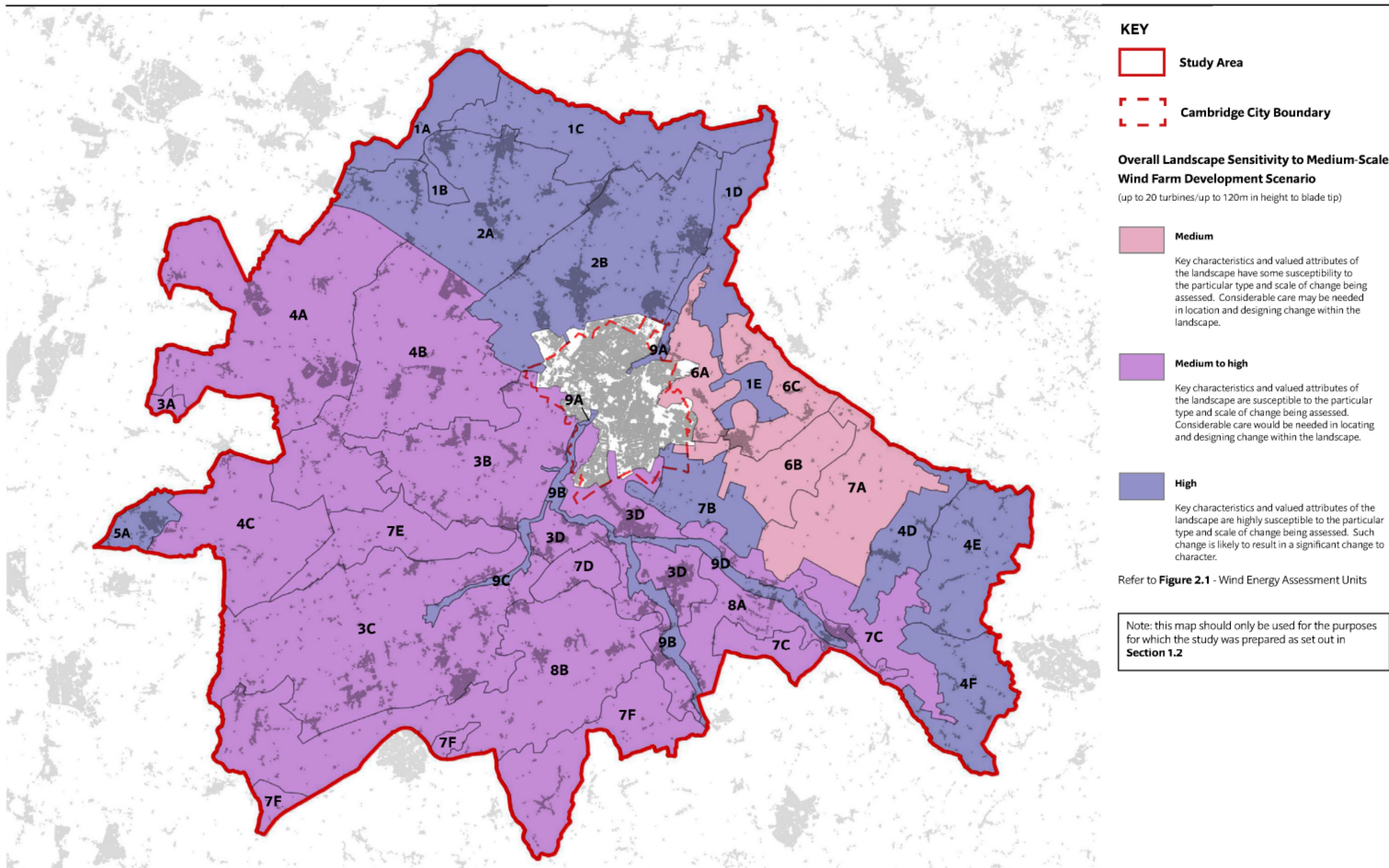


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Medium-scale wind farm (up to 20 turbines/up to 120m in height to blade tip)

See **Figure 2.5**

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	High	None
LCT 3: Lowland Farmlands	Medium to high	None
LCT 4: Wooded Claylands	Medium to high	• LCA 4D: West Wratting Wooded Claylands - High • LCA 4E: West Wickham Wooded Claylands - High • LCA 4F: The Camps Wooded Claylands - High
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	Medium	None
LCT 7: Chalk Hills	Medium to high	• LCA 7A: Eastern Chalk Hills – Medium • LCA 7B: Gog Magog Chalk Hills - High
LCT 8: Lowland Chalklands	Medium to high	None
LCT 9: River Valleys	High	None

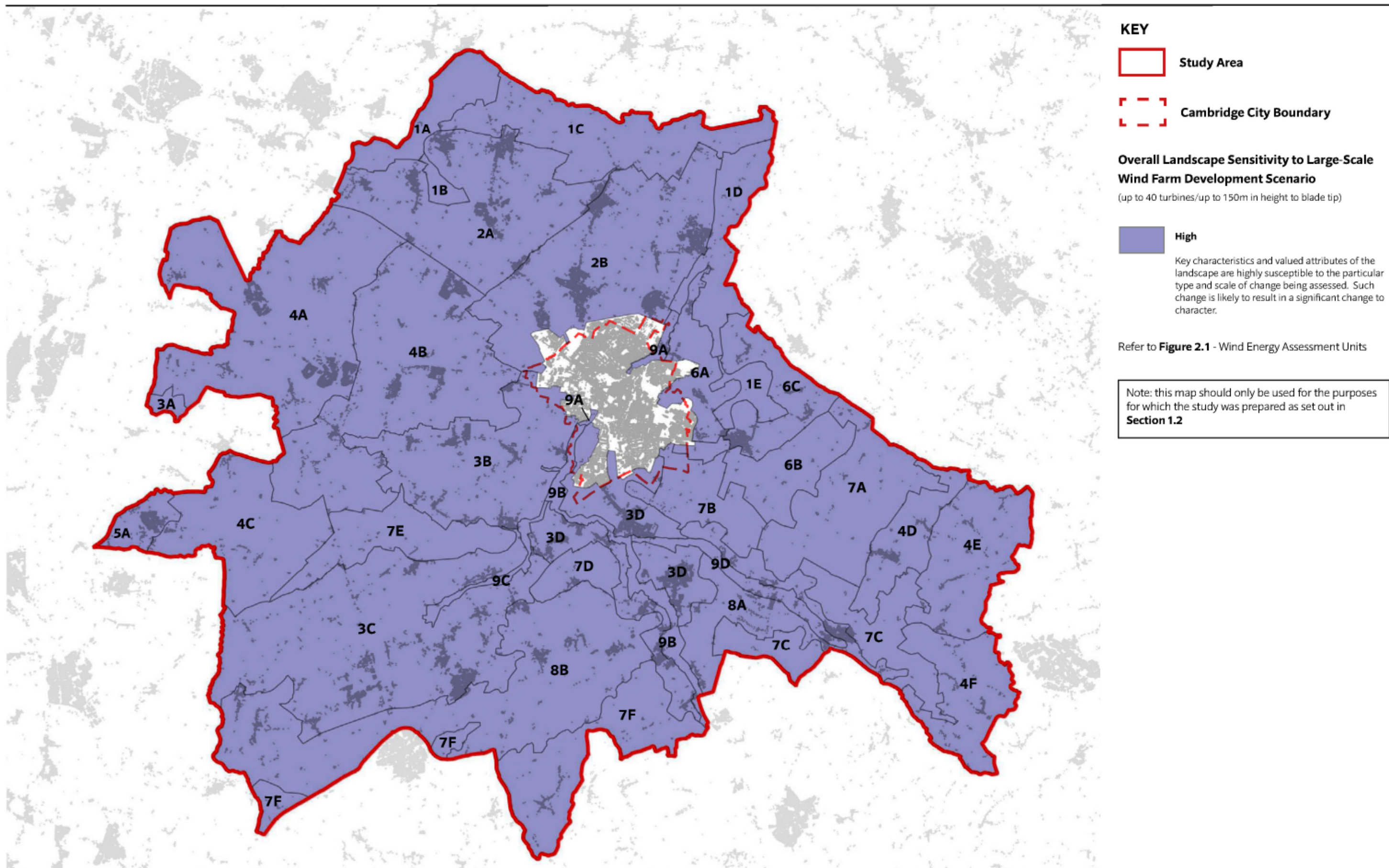


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Large-scale wind farm (up to 40 turbines/up to 150m in height to blade tip)

See **Figure 2.6**

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	High	None
LCT 3: Lowland Farmlands	High	None
LCT 4: Wooded Claylands	High	None
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	High	None
LCT 7: Chalk Hills	High	None
LCT 8: Lowland Chalklands	High	None
LCT 9: River Valleys	High	None

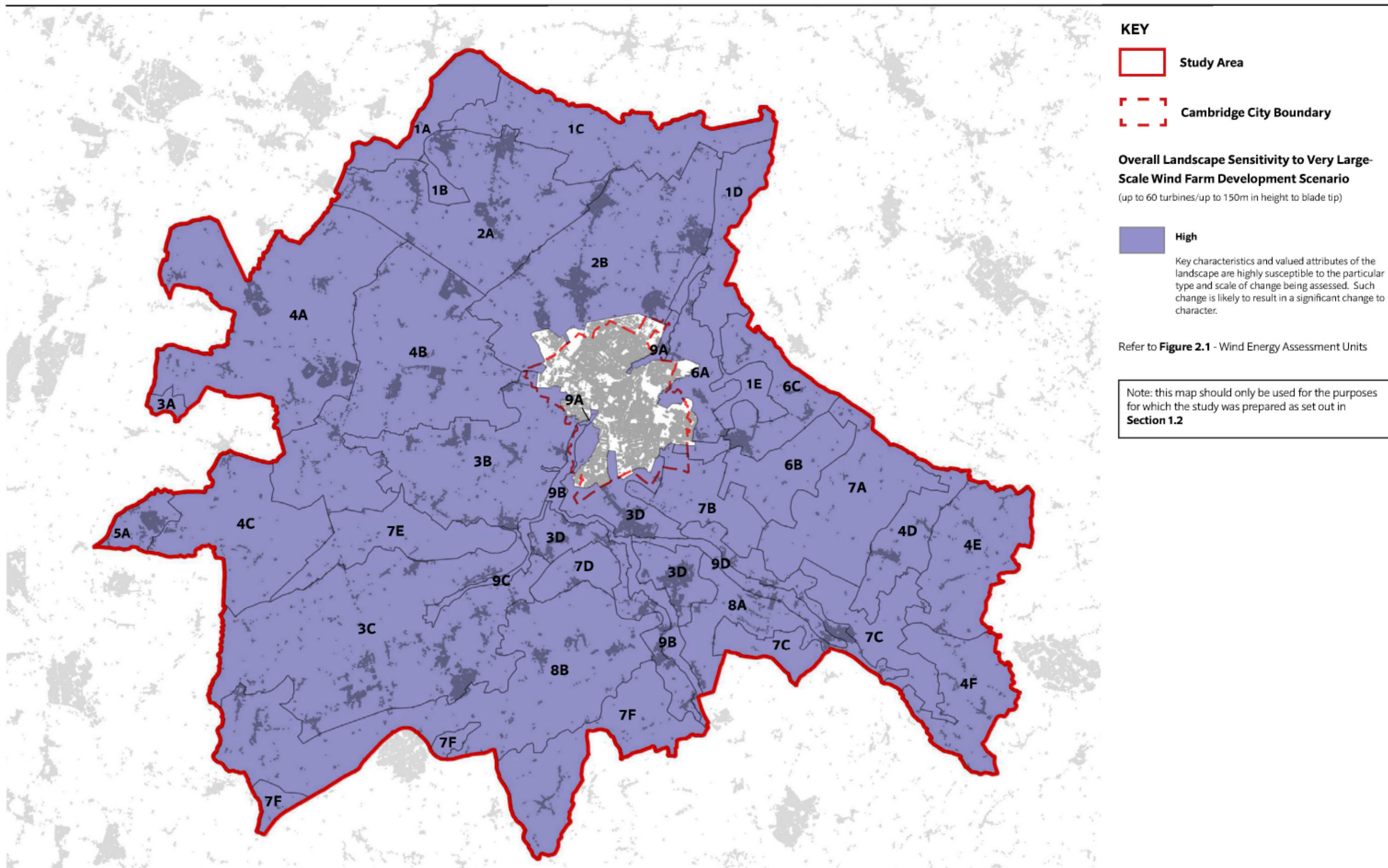


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Very large-scale wind farm (up to 60 turbines/up to 150m in height to blade tip)

See **Figure 2.7**

LCT	Sensitivity	Spatial Variation
LCT 1: The Fens	High	None
LCT 2: Fen Edge Claylands	High	None
LCT 3: Lowland Farmlands	High	None
LCT 4: Wooded Claylands	High	None
LCT 5: Wooded Greensand Ridge	High	None
LCT 6: Fen Edge Chalklands	High	None
LCT 7: Chalk Hills	High	None
LCT 8: Lowland Chalklands	High	None
LCT 9: River Valleys	High	None



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3.0 SOLAR PV ENERGY DEVELOPMENT

3.1 Introduction

3.1.1 The Assessment Units are provided by the Landscape Character Types (and their constituent Landscape Character Areas) defined by the 2021 Greater Cambridge Landscape Character Assessment¹¹ as shown on **Figure 3.1**.

Development Scenarios

3.1.2 The following development scenarios for solar PV energy development are considered by the Landscape Sensitivity Assessment:

- **Small-scale solar farm** (up to 20ha in extent)
- **Medium-scale solar farm** (up to 50ha)
- **Large-scale solar farm** (up to 100ha)
- **Very large-scale solar farm** (up to 200ha)

¹¹ See Figure 4.1 in Greater Cambridge Landscape Character Assessment (2021)