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North Norfolk Landscape Sensitivity Assessment

with particular reference to renewable energy and low carbon development

Supplementary Planning Document
January 2021

Prepared by LUC for North Norfolk District Council

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North Norfolk Landscape Sensitivity Assessment

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Supplementary Planning Document

Final Report
Prepared by LUC for North Norfolk District Council

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Executive Summary

North Norfolk's landscape has a significant economic, social and community value, contributing to a strong tourism industry. The District has good conditions to produce renewable energy, but also has high environmental value for its wildlife, history and natural beauty. This is reflected in the extensive stretches of the coast, together with rare chalk rivers, that are the subject of international and national designations for their landscape and wildlife value.

The Council recognises the need to maximise renewable energy generation, but this needs to be managed carefully to achieve the greatest contribution towards our energy needs, while ensuring landscape character and values are respected. This includes consideration of the impact of renewable energy development within the District on the adjacent Broads designated landscape e.g. visual impact of wind turbines.

This study has assessed the sensitivity of North Norfolk's landscape to various types of renewable and low carbon development, using a methodology which is consistent with best practice. Its outputs provide an indication at a strategic scale of the relative sensitivities of different landscape areas to different types of renewable energy related development.

The assessment has defined and applied criteria relating to the susceptibility to change and the value of different landscape areas. The Landscape Character Types (LCTs) defined in the District's Landscape Character Assessment (2018) provide the spatial framework for the assessment, and the Landscape Character Assessment also provides an evidence base for the sensitivity study. In addition, specific assessment of six former RAF airfields has been carried out.

The North Norfolk Landscape Character Assessment (2018) identified that the District has a strongly rural character with agriculture, in particular arable farmland, comprising by far the largest component of land use. The Landscape Sensitivity Assessment found that the majority of the District's landscape has relatively high levels of sensitivity to most forms of development under consideration. The areas of more expansive and homogeneous arable farmland generally have a lower sensitivity to most forms of development than the more naturalistic landscapes such as the coastal marshes and river valleys, although the high degree of visual openness within the District means that the tallest developments, such as larger wind turbines, can be visible across several LCTs.

Typical sensitivity to all development types is high within the Norfolk Coast AONB, and larger developments such as wind turbines outside the AONB can also affect the special qualities of the land within the AONB, due to the visual openness of the landscape.

Airfield sensitivity is typically lower than sensitivity of the Landscape Type in which each site is located, although there is generally less difference in relation to wind turbines, which have a greater impact on surrounding landscapes than the lower-level development types.

The study does not make judgements about particular localised areas where sensitivity may be different from that which is typical, but it provides guidelines to assist with the identification of locations in which adverse landscape impact may be reduced, either by avoiding the more sensitive elements of the landscape or by applying mitigating measures to reduce any harm.

Introduction

1 Introduction

Background & Purpose of the Landscape Sensitivity Assessment

1.1 North Norfolk District is faced with a wide range of challenges arising from a changing climate. Balancing the need to make a meaningful contribution towards reducing harmful emissions from our energy use (through cleaner energy production) with appropriate management of North Norfolk's unique landscape is one of these challenges.

1.2 The landscape of North Norfolk has significant economic, social and community value. It is vitally important for agriculture and tourism which are the mainstays of the local economy. High productivity from the land, a strong sense of identity, well-being and inspiration are all features derived from the landscape.

1.3 The coastal landscape is highly valued for its special geological and biodiversity features and is protected through international and national designations. The natural beauty of 25% of the District is recognised through designation of the Norfolk Coast Area of Outstanding Natural Beauty (AONB). Part of the coast also has Heritage Coast status. The eastern section of the District lies within the Broads, a national landscape designation equivalent to a National Park, where the Broads Executive Authority has planning jurisdiction.

1.4 The Council recognises the need to maximise renewable energy generation (which can have environmental, economic, social and other benefits) alongside the duty to accommodate this requirement without detriment to the recognised high environmental value of the area.

1.5 North Norfolk District Council commissioned LUC in February 2018 to review and update the existing landscape character evidence base, and produce an updated Landscape Character Assessment together with a landscape sensitivity assessment focused around types of renewable energy development.

1.6 These studies are intended to provide context for policies and proposals within the emerging Local Plan, to ensure consistency with the National Planning Policy Framework (see below), to inform the determination of planning applications, and inform the management of future change.

1.7 Landscape Sensitivity Assessment has become an important tool for informing the management of landscape change, by assessing and mapping the relative sensitivity of different landscapes to different types of change, based on an understanding of susceptibility and value.

Policy Context

National Planning Policy Framework (NPPF), 2018[1]

1.8 The NPPF 2018 has a commitment to conserving and enhancing the natural environment, including protecting and enhancing valued landscapes (including – but not limited to - designated landscapes such as AONBs and National Parks) and recognising the intrinsic character and beauty of the countryside.

1.9 The following extracts from the NPPF are those most relevant to landscape sensitivity and renewable energy. Words in bold are emphasised for the purposes of this report.

Key NPPF policies in relation to landscape sensitivity and renewable energy

1.10 Paragraph 180 of the NPPF contains one reference to sensitivity as follows [emphasis added]:

[1]The NPPF was updated in 2019, but this does not change the wording set out here.

*"**Planning policies and decisions should also ensure that new development is appropriate for its location taking into account** the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as **the potential sensitivity of the site or the wider area** to impacts that could arise from the development…"*

1.11 Landscape sensitivity can inform appropriate locations for development, and can also be one of the considerations to be taken into account when making decisions on planning applications.

1.12 Paragraph 151 of the NPPF relates to planning for renewable energy and states [emphasis added]:

"*To help increase the use and supply of renewable and low carbon energy and heat, plans should:*

*a) **provide a positive strategy for energy from these sources**, that maximises the potential for suitable development, **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; and*

c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers."

1.13 And Paragraph 154 b)*:*

*"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**".*

1.14 The landscape sensitivity study can be used to provide a strategy for renewable energy, including identifying 'suitable areas', but it cannot be used in isolation. Other considerations such as other physical constraints, other environmental constraints (e.g. biodiversity and heritage) and policy constraints (such as Green Belt or Undeveloped Coast) will also influence the strategy.

Using this Study

1.15 This study is intended to be used by the Council and by developers in identifying suitable locations for renewable and low carbon energy as well as assessing and appraising applications as shown in the table below.

Table 1.1: Potential uses of the Landscape Sensitivity Assessment

Potential uses of study	How NNDC might use the study	How developers might use the study
Identifying suitable locations for renewable and low carbon energy	The relative ratings of sensitivity could feed into identifying 'suitable areas for renewable and low carbon energy', as required by NPPF, in combination with other policy requirements.	This study can be used to inform appropriate siting of renewable energy related developments by using the sensitivity levels in combination with the generic guidance to identify the most appropriate locations, and avoid the most sensitive locations.
Assessing and appraising planning applications	The sensitivity levels in combination with the generic guidance can be used to consider whether a development is in an appropriate location and whether it is likely to have an adverse effect on the landscape, either as a result of its	The sensitivity levels in combination with the generic guidance can be used by developers to ensure their assessment considers all relevant

	location or its design[2]. In addition, the flowchart on page 3 of the North Norfolk Landscape Character Assessment (2018) should be used to shape proposals and assist in planning decisions.	points[3]. In addition, the flowchart on page 3 of the North Norfolk Landscape Character Assessment (2018) should be used to inform assessments of proposals.
To develop policy in relation to renewable and low carbon energy and impacts on landscape	This study can help with informing criteria based policies as part of the Local Plan.	The study could be used to inform developers' own strategies and site searches.

1.16 In relation to the second of these uses (assessing and appraising planning applications), the following flow chart should assist in using available information to shape proposals / assist in planning decisions:

What **type of change** is proposed?

↓

To which **Landscape Character Type (LCT)** or **airfield** does the proposal relate [***refer to Figure 2.4***], and is the site within the Norfolk Coast **AONB**? *NB if a proposal is close to the edge of two or more LCTs all relevant profiles will need to be consulted*

↓

With reference to the relevant **Landscape Sensitivity Assessment Profile(s)** in Appendix 1 (LCTs) or Appendix 2 (airfields), what is the assessed **overall level of sensitivity** for the location and type of development?

↓

To what degree does the site reflect the typical sensitivities identified in the **sensitivity criteria** and **value criteria** for the LCT or airfield in question? Does the assessment text identify any areas of higher or lower sensitivity that may be applicable to the proposal?

↓

Will any of the **key sensitivities** or **valued features and qualities** [*as set out in the relevant Appendix 1 or Appendix 2 profile, and described in more detail in the North Norfolk Landscape Character Assessment 2018*] be affected by the proposal?
If so, which ones and how?

↓

With reference to the **guidance for minimising harm to the landscape** [*set out by development type in Appendix 3*], are there any **specific site location factors** or opportunities for **mitigation** which could reduce the level of harm suggested by the Landscape Sensitivity Assessment Profile?

[2] It should be noted that development may impact on a neighbouring LCT that may have different sensitivities, and more than one LCT sensitivity appraisal may therefore need to be taken into account.

[3] It should be noted that development may impact on a neighbouring LCT that may have different sensitivities, and more than one LCT sensitivity appraisal may therefore need to be taken into account.

Limitations of the landscape sensitivity assessment

1.17 This Landscape Sensitivity Assessment provides an assessment of the relative landscape sensitivities of different landscape areas to different types of renewable energy related development at a strategic scale, without knowing the exact location, layout, design or mitigation proposed.

1.18 It therefore should not be interpreted as a definitive statement on the suitability of a certain location for a particular development. It is not a replacement for detailed studies for specific siting and design and all developments will need to be assessed on their individual merits. It is also unrelated to any studies of technical potential.

1.19 This Landscape Sensitivity Assessment is based on an assessment of landscape character using carefully defined criteria. As with all analyses based upon data and information which is to a greater or lesser extent subjective, some caution is required in its interpretation. The reality is that landscape sensitivity is the result of a complex interplay of often unequally weighted variables (or 'criteria'). We have sought to address this issue in our summary of overall landscape sensitivity given for each LCT – which considers how the criteria based assessments combine to give an overall sensitivity result for different development types within an LCT. Because of the complexity of the criteria, and their subtle interrelationships with each other, we have purposefully not used a numeric scoring system in expressing sensitivity. The assessments are based on professional judgement, taking account of the interplay between criteria, as well as those which might be more important [to landscape character] in a particular LCT.

1.20 It is also worth noting that the assessment does not cover the following:

- Specific ecological issues associated with nature conservation designations or, in the case of wind turbines, bird flight paths;
- Specific cultural heritage/archaeological issues associated with individual designated heritage assets and their settings;
- Visual amenity issues; or
- Technical issues relating to the feasibility of a particular type of development (e.g. constraints relating to continued aviation use of an airfield).

1.21 These are all issues that will need to be taken into account in site selection and impacts will need to be reported at the time when individual proposals are being put forward – e.g. through the Environmental Impact Assessment (EIA) process.

1.22 This report does not address capacity because it is not readily possible to assess capacity on landscape sensitivity judgements alone. Capacity is a further stage of assessment that requires consideration of cumulative development, landscape objectives, and thresholds of acceptable change. Capacity should therefore be judged in the round, taking into account current national and local policy and need as well as landscape sensitivity and other constraints.

1.23 This sensitivity assessment is not an impact assessment and cannot therefore conclude what the exact impacts of a development on the landscape would be. **Table 1.2** below shows how Landscape Character Assessment (LCA), Landscape Sensitivity Assessment (LSA) and Landscape and Visual Impact Assessment (LVIA) relate to each other and where this assessment sits in relation to these other types of study.

Table 1.2: Types of Landscape Study/ Assessment

	SCALE OF STUDY AREA				
SPECIFICITY OF PROPOSAL		**Strategic level (regional)**	**District/ borough level**	**Sub-district level/ settlement edge**	**Specific site**
	Inherent sensitivity (no proposal)	LCA[4] (identify key sensitivities/ valued attributes of LCAs)	LCA (identify key sensitivities/ valued attributes of LCAs)	LCA/LSA[5] (identify key sensitivities/ valued attributes of parcels)	LSA (identify key sensitivities/ valued attributes of a site)
	Sensitivity to the principal of a type of development (e.g. housing, wind energy, roads)	LSA (identify sensitivity of regional scale character areas to a type of development)	LSA (identify sensitivity of district/ borough level character areas to a type of development)	LSA (identify sensitivity of sub-LCA land parcels to a type of development)	LSA / baseline assessment for an LVIA (identify sensitivity of a site to a type of development)
	Sensitivity to a range of options associated with a development type (e.g. 500 houses, 1000 houses, 1500 houses)	LSA (identify sensitivity of regional scale character areas to different development options)	LSA (identify sensitivity of district scale character areas to different development options)	LSA (identify sensitivity of sub-LCA land parcels to different development options)	LSA/option appraisal (identify sensitivity of a site to different development options or identify potential effects of options)
	Sensitivity to a specific proposal (e.g. 250 houses in a defined area including known layout and supporting infrastructure)	LSA/ comparative site assessment (identify potential effects on different sites, perhaps for comparison purposes)	LSA/ comparative site assessment (identify potential effects on different sites, perhaps for comparison purposes)	LSA/ comparative site assessment (identify potential effects on different sites, perhaps for comparison purposes)	LVIA[6] (Identify potential effects)

[4] Landscape Character Assessment
[5] Landscape Sensitivity Assessment
[6] Landscape and Visual Impact Assessment

Structure of this report

1.24 This report is set out as follows:

- **Section 1** presents an introduction and policy context.
- **Section 2** presents the landscape character baseline which forms a spatial framework for the study, and highlighted areas of particular landscape value.
- **Section 3** presents the characteristics of the renewable energy related development that forms the focus on this study.
- **Section 4** presents the methodology and approach to the landscape sensitivity assessment, including the assessment criteria.
- **Section 5** summarises the results of the landscape sensitivity assessment.

1.25 The report is supported by the following appendices:

- **Appendix 1** presents the landscape sensitivity assessment 'profiles' by landscape type.
- **Appendix 2** presents the landscape sensitivity assessment 'profiles' for specific former airfield sites within the District.
- **Appendix 3** presents guidance for using the study and minimising harm to the landscape.

Understanding the Baseline Landscape

2 Understanding the Baseline Landscape

The Landscape of North Norfolk District

2.1 North Norfolk District covers an area of 87,040 hectares (340 square miles) (excluding the Broads Authority Executive Area), with a 73km (45 mile) North Sea coastline. The location of the District in the context of the East of England region and neighbouring authorities is shown in **Figure 2.1**.

2.2 The main settlements in the District comprise seven towns (Cromer, Fakenham, Holt, North Walsham, Sheringham, Stalham and Wells-next-the-Sea) and three large villages (Briston / Melton Constable, Hoveton & Mundesley), which accommodate approximately half of the District's population (101,149 at the 2011 Census).

2.3 The District has a strongly rural character with agriculture, in particular arable farmland, comprising by far the largest component of land use. Much of the District is Grade 3 agricultural land, with large areas of Grade 1 and 2 land in the east.

2.4 The importance and value of the area's landscape has been recognised through national designations such as Area of Outstanding Natural Beauty and Heritage Coast. The eastern end of the District lies within the Broads, which has the status equivalent to a National Park, and where the Broads Executive Authority are the planning body. For the purposes of this assessment, only areas of the District where NNDC is the Local Planning Authority have been included.

2.5 The inter-tidal coastal area is of international importance for its biodiversity and geological features. The area also has a rich cultural heritage which is reflected in the high number of cultural heritage designations, along with inland areas that are particularly important for their habitats, flora or fauna and geodiversity, reflected through nature conservation designations.

2.6 The District's landscape character is defined in many areas by a strong sense of openness and rurality, which gives rise to long uninterrupted and expansive views over undeveloped skylines. At present, there is only one commercial scale on-shore wind turbine (i.e. larger than domestic turbines used for microgeneration[7]) within North Norfolk, at East Ruston (34.2m high, falling within the small-scale category – see Chapter 3). However, the long and open views also allow intervisibility with turbines in neighbouring districts such as King's Lynn and West Norfolk, where existing clusters of large scale turbines are present as skyline features in many longer range views.

2.7 Other existing renewable and low carbon developments within the North Norfolk landscape include a number of field-scale solar PV developments and anaerobic digestion plants, spread relatively evenly across the District, the characteristics of which are described in Chapter 3.

2.8 Offshore wind farms (e.g. Sheringham Shoal and Dudgeon) are also frequently present as features in coastal views along the majority of the District's coastline and have on-shore connections and cable routes transgressing the District.

2.9 Future additional large scale off shore wind farms (Vanguard and Orsted) are currently in the detailed planning stages, with North Norfolk District facilitating on-shore connections and cable routes.

[7] The Government's Microgeneration Certification Scheme (MCS) covers systems up to 200m^2 swept area, or 45m blade tip height, although permitted development rights are limited to single turbines below 11.1m tip height (and which also meet other locational criteria, including not being within an AONB)

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 2.1: Location of District within the Region

- North Norfolk District
- Surrounding Local Authority boundary
- The Broads Authority area
- North Norfolk Heritage Coast
- Norfolk Coast AONB

King's Lynn and West Norfolk District

Breckland District

Broadland District

Great Yarmouth District

Norwich District

South Norfolk District

0 4 8 km

Map Scale @A3: 1:220,000

LUC

NORTH NORFOLK DISTRICT COUNCIL

CB:MNi EB:Nicholson_M LUC 10274_FIG2-1_ooddpThemedMaps_A3L_Landscape 05/10/2018

Source: BGS, Natural England, Environment Agency, NNDC

Landscape Character Baseline

2.10 Landscape Character Types (LCTs) and Landscape Character Areas (LCAs) form the spatial framework and evidence base for this Landscape Sensitivity Assessment (see **Figure 2.2**).

North Norfolk Landscape Character Assessment (2018)

2.11 There are 11 Landscape Character Types (LCTs) falling within North Norfolk District, as identified in the recent Landscape Character Assessment (2018), listed in **Table 2.1** below. The district-level Landscape Character Assessment provides descriptive information for each of these LCTs, forming the primary evidence base for the assessments provided in Parts 2 and 3.

Table 2.1: Landscape Character Types and Areas in North Norfolk District

Ref	Type	Area (s)
CP	Coastal Plain	CP1 Bacton to Waxham
CS	Coastal Shelf	CS1 Weybourne to Mundesley
DCM	Drained Coastal Marshes	DCM1 Holkham Drained Marshes
		DCM2 Blakeney, Wiveton, Cley and Salthouse Drained Marshes
LPF	Low Plains Farmland	LP1 North Norfolk Low Plains Farmland
OCM	Open Coastal Marshes	OCM1 North Norfolk Open Coastal Marshes
RHA	Rolling Heath and Arable	RHA1 Blakeney, Salthouse & Kelling
ROF	Rolling Open Farmland	ROF1 Holkham to Raynham
RV	River Valleys	RV1 River Wensum and tributaries
		RV2 River Bure and tributaries
		RV3 River Ant and tributaries
		RV4 River Stiffkey and tributaries
		RV5 River Glaven and tributaries
		RV6 Mundesley Beck
SF	Settled Farmland	SF1 Stalham, Ludham and Potter Heigham
TF	Tributary Farmland	TF1 North Norfolk Tributary Farmland
WGR	Wooded Glacial Ridge	WGR1 Wooded Glacial Cromer Ridge

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 2.2: North Norfolk Landscape Classification

North Norfolk District

Surrounding Local Authority boundary

Landscape Character Types & Areas

- The Broads Authority area
- Coastal Plain
  - CP1: Bacton to Waxham
- Drained Coastal Marshes
  - DCM1: Holkham Drained Marshes
  - DCM2: Blakeney, Wiveton, Cley and Salthouse Drained Marshes
- Coastal Shelf
  - CS1: Weybourne to Mundesley Coastal Shelf
- Low Plains Farmland
  - LPF1: North Norfolk Low Plains Farmland
- Open Coastal Marshes
  - OCM1: North Norfolk Open Coastal Marshes
- River Valleys
  - RV1: River Wensum and tributaries
  - RV2: River Bure and tributaries
  - RV3: River Ant and tributaries
  - RV4: River Stiffkey and tributaries
  - RV5: River Glaven and tributaries
  - RV6: Mundesley Beck
- Rolling Open Farmland
  - ROF1: Holkham to Raynham
- Settled Farmland
  - SF1: Stalham, Ludham and Potter Heigham
- Tributary Farmland
  - TF1: North Norfolk Tributary Farmland
- Rolling Heath and Arable
  - RHA1: Blakeney, Salthouse & Kelling
- Wooded Glacial Ridge
  - WGR1: Wooded Glacial Cromer Ridge

Map Scale @A3: 1:220,000

0 4 8 km

CB:MNi EB:Beetham_m LUC 10274_r2_FIG2-2_ThemedMap_NorfolkLCT_only_A3L_2 13/08/2020

Source: NNDC

Historic Landscape Characterisation for Norfolk

2.12 The Norfolk Historic Landscape Characterisation (HLC) project (2004-2008) identified and grouped historic and other environmental attributes to form historic landscape types of distinct and recognisable common character, the distribution of which was then mapped and supported by written descriptions of the individual landscape types and the historical processes that they represent.

2.13 **Figure 2.3** shows the distribution of HLC landscape types within the District. The main patterns of historic character include areas of historically large field sizes of a largely geometric shape in the western part of the District (18th – 19th Century Enclosure), which have generally translated into modern intensive agriculture with relatively few hedgerow field boundary removals. This contrasts with a large central and eastern swathe of the District where open fields were enclosed at a much earlier date to create small, irregular fields which then experienced extensive hedgerow field boundary loss due to 20th Century agricultural intensification.

Landscape Value: Designations

2.14 Landscape value can be recognised through landscape designations, and the level of importance that they signify.

2.15 A significant proportion of the District (25%) is included within the nationally designated Norfolk Coast Area of Outstanding Natural Beauty (AONB) and the North Norfolk Heritage Coast. The eastern end of the District lies within The Broads, which has the status of a National Park. The location of these protected landscapes in the context of the District is shown in **Figure 2.1,** and a description of each is included below. NNDC is the Local Planning Authority for much of the AONB, but not for the Broads. This Landscape Sensitivity Assessment is a tool to guide development within the NNDC planning area.

Norfolk Coast Area of Outstanding Natural Beauty (AONB)

2.16 The key statutory purpose of the designation of an area as an AONB is to conserve and enhance the natural beauty of a defined area. This duty is upheld in paragraph 172 of the NPPF, which requires that "*great weight is given to conserving landscape and scenic beauty in an AONB/National Park/Broads*".

2.17 A summary of the key qualities of natural beauty of the Norfolk coast (the special qualities), which underpin the AONB designation, as set out within the current AONB Management Plan (2014-2019), is provided below:

- **Dynamic character and geomorphology of the coast**

  Movement and interchange of internationally recognised geomorphological features and habitats.

- **Strong and distinctive links between land and sea**

  The area's distinctive and unique character is based on the visual, ecological, socio-economic and functional links between land and sea.

- **Diversity and integrity of landscape, seascape and settlement character**

  Key quality is based on maintaining diversity of character types rather than uniformity across the area, including landscapes and seascapes, settlement pattern, building materials and styles.

- **Exceptionally important, varied and distinctive biodiversity, based on locally distinctive habitats**

  Recognised by a range of national and international designations. Coastal habitats are particularly important and most famous for birds, supporting iconic species. Inland habitats and species are also important, particularly lowland heath.

- **Nationally and internationally important geology**

Mainly based on past glaciation and current coastal processes. Includes landforms and landscape scale features as well as individual sites.

- **Sense of remoteness, tranquillity and wildness**

  A low level of development and population density for lowland coastal England, leading to dark night skies and a general sense of remoteness and tranquillity away from busier roads and settlements and, particularly for undeveloped parts of the coast, of wildness.

- **Richness of archaeological heritage and historic environment, particularly that relating to the coast and its character**

  Evidence and features of human use of the area since prehistoric times and links to current uses and features.

The Broads

2.18 The Broads Authority was established by the Norfolk and Suffolk Broads Act 1998, which gave the area the equivalent status in law as a National Park. The Authority has planning jurisdiction and has a special duty to manage the Broads for the purposes of:

- Conserving and enhancing the natural beauty, wildlife and cultural heritage of the Broads;
- Promoting opportunities for the understanding and enjoyment of the special qualities of the Broads by the public; and
- Protecting the interests of navigation.

2.19 The Broads is considered the UK's premier wetland, and contains a mosaic of habitats that gives the area a high conservation value, recognised through the designation of eight National Nature Reserves, 28 Sites of Special Scientific Interest and 18 Special Areas of Conservation.

2.20 The key qualities of natural beauty of the Broads (the special qualities), which underpin its equivalent designation status as a National Park, as set out within the current Broads Local Plan (2015-2036), are provided below:

- **Rivers and open water bodies ('broads')**
- **Fens, reed beds and wet woodlands**
- **Grazing marshes and dyke networks**
- **Flood plains, estuary and coast**
- **Navigable, lock-free waterways**
- **Special wildlife**
- **Countryside access on land and water**
- **Views, remoteness, tranquillity, wildness and 'big skies'**
- **The people, the visitors, the activities**
- **History: Earth heritage, heritage assets, archaeology, historic structures**
- **Cultural assets, skills and traditions**
- **People's interactions with the landscape**
- **The settlements**
- **Variety of patterns and textures of the landscape North Norfolk Heritage Coast**

2.21 The North Norfolk Heritage Coast was defined in 1975 in order to conserve one of the best stretches of undeveloped coast in England. The purpose of establishing Heritage Coasts (of which North Norfolk is one of 32 in England) is to conserve, protect and enhance:

- the natural beauty of the coastline;
- their terrestrial, coastal and marine flora and fauna;
- their heritage features;

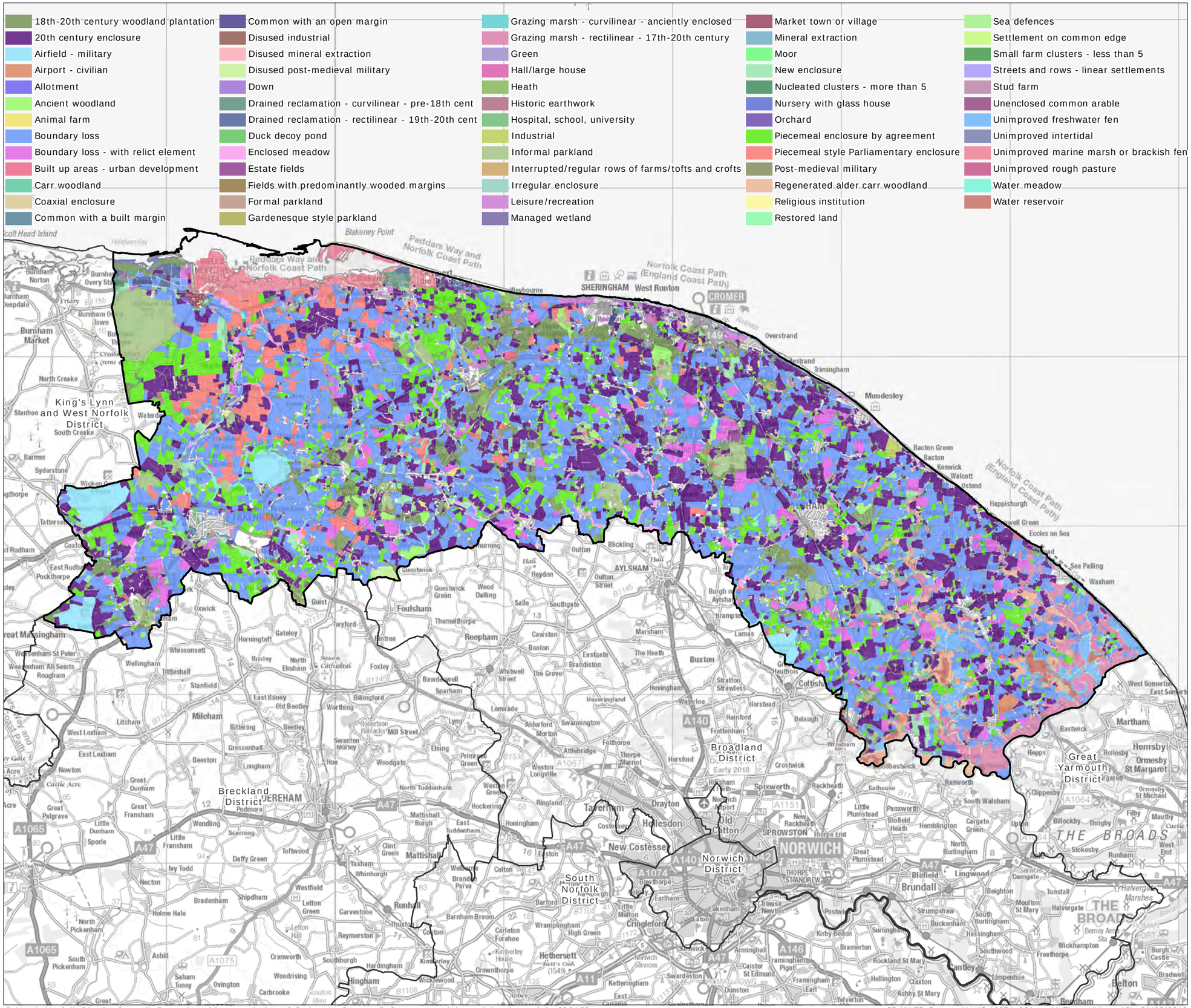
- encourage and help the public to enjoy, understand and appreciate these areas;
- maintain and improve the health of inshore waters affecting heritage coasts and their beaches through appropriate environmental management measures;
- take account of the needs of agriculture, forestry and fishing and the economic and social needs of the small communities on these coasts

Undeveloped Coast

2.22 The whole of the coast has a special undeveloped character and appeal which is critical to North Norfolk's distinctiveness and tourism economy. The purpose of the Undeveloped Coast designation as defined within the North Norfolk Local Plan is to protect the distinctive landscape, biodiversity and recreational features of this part of the District. This defined area is one of the data sources that has informed the assessment criterion relating to "Sense of tranquillity, remoteness and rurality and current level of human influence/development".

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure **2.3**: Historic Landscape Character Types



Map Scale @A3: 1:220,000

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Source: BGS, Natural England, Environment Agency, NNDC

Other indicators of landscape value

2.23 The Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA 3) indicate that there should not be over-reliance on designations as the sole indicator of value, and it is widely accepted that an absence of designation does not mean an absence of landscape value. Indicators of landscape value can include landscape quality (condition), scenic quality, rarity, representativeness, conservation interests, recreation value, perceptual aspects and artistic/ literary associations. It is therefore worth considering how these are represented in North Norfolk.

Landscape quality (condition, or intactness)

2.24 Landscape quality varies throughout the District. Although areas of highest intactness tend to be within the existing designated landscapes, there are pockets of high quality landscape throughout the District, including outside of the designated areas, that are valued.

Scenic quality

2.25 Scenic quality is best represented through the designated areas, and particularly the AONB and Heritage Coast which are designated for their natural beauty. However, outside these designations there are areas of scenic quality where combinations of landscape elements appeal to the visual senses.

Rarity

2.26 Rarity relates to the presence of rare elements or features in the landscape, or a rare landscape character / historic landscape character type. In North Norfolk District this includes the rare arable plants thriving in pockets of North Norfolk farmland, the many designated sites and nature reserves, home to many rare and protected species (such as the extensive natural and semi-natural habitats including coastal saltmarsh, coastal sand dunes, mud flats and ancient woodland), and rare pre-18th century co-axial agricultural enclosures.

Representativeness

2.27 Representativeness relates to whether the landscape contains a particular character and / or features which are considered particularly important examples. In North Norfolk District there are many coastal habitats that are important examples of that type of landscape.

Nature conservation & cultural heritage interests

2.28 The presence of features of wildlife, earth science, archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right.

2.29 The high wildlife value of much of the District's coastal and inland habitats is recognised by a range of statutory international and national designations, including Special Protection Areas, Special Areas of Conservation, Ramsar sites, Sites of Special Scientific Interest and National Nature Reserves.

2.30 A number of geological SSSIs are also present, reflecting the value of the District's geodiversity, notably along extensive stretches of coastal cliffs and shoreline, and some inland quarry sites.

2.31 North Norfolk contains a rich diversity of cultural heritage features and designations, including a number of historic parks and gardens on Historic England's register, relatively evenly spread across the District, which make important and distinctive contributions to the value of the landscape. Examples include the Grade I registered park of Holkham Hall, which is one of the principal designed landscape parks in England. The extensive historic landholdings of the wider Holkham Estate have had a significant influence on the development and character of the surrounding landscape. The Grade II* parklands of Sheringham Hall, Felbrigg Hall, Melton Constable Hall and Honing Hall, along with other registered landscapes all add significance to the landscape of the District. Many scheduled monuments, 81 conservation areas and 2200 statutorily listed buildings are also present throughout the area.

Recreational value

2.32 This relates to evidence that the landscape is valued for recreational activity where experience of the landscape is important. North Norfolk's coastline in particular is a focus for recreational activity as a result of the natural beauty of the landscape and biodiversity of the varied habitats. The Norfolk Coast Path National Trail follows the entirety of the District's coastline, linking with the Peddars Way in the west and is valued by recreational users. Many coastal areas also have open access. However, it is not just the coastline that is valued for recreation. Areas of heathland and woodland also have open access and a well-used network of Rights of Way traverses the whole District.

Literary / artistic associations

2.33 The North Norfolk landscape has inspired poetry by the likes of John Betjeman: 'Norfolk' (1954) which references the River Bure; and 'Lord Cozens Hardy' which references Letheringsett.

2.34 First published in 1815, Jane Austen's famous novel, Emma, makes mention of one of North Norfolk's coastal towns when Emma's father, Mr Woodhouse advises his daughter on sea-bathing in chapter 12 "You should have gone to Cromer my dear, if you went anywhere. Perry was a week at Cromer once, and he holds it to be the best of all the sea-bathing places."

2.35 In 1901 Sir Arthur Conan Doyle took a trip to Cromer Hall which is believed to have been the inspiration for Baskerville Hall in his famous Sherlock Holmes novel, The Hound of the Baskervilles,

2.36 W H Auden was educated at Gresham's School near Holt. He described his time at Gresham's in a compilation of Graham Greene, entitled The Old School (1934) "No dogs barked in the street below, the churchyard where they dug his grave, the day wore nothing strange to show, the earth took back the dust she gave, and the cuckoos they were calling still when had left him in the hill."

2.37 Agatha Christie spent time at the Beechwood Hotel in North Walsham between 1936 and 1939 and this may be the setting for some of her writing.

2.38 Oscar Wilde stayed in Cromer at the Hotel de Paris in 1892 for a period of time, advised by his doctor to take in the 'pure air'. He also rented a farmhouse nearby where he supposedly wrote A Woman of No Importance.

2.39 The District's landscape, including its coastline, churches and heaths, has been depicted by many renowned artists, including John Sell Cotman (1782-1842) and John Crome (1768-1821), founding members of the Norwich School of artists, and Sheringham fisherman, John Craske (1881-1943).

2.40 The District's historic estates also have strong associations with eminent 18th & 19th Century landscape designers Lancelot 'Capability' Brown and Humphry Repton, who influenced and designed many parklands such as Holkham Hall, Sheringham Hall, Barningham Hall, Melton Constable Hall, Honing Hall, Hoveton Hall and Felbrigg Hall.

Airfields

2.41 The District contains a large number of former RAF airfields, which typically occupy flatter areas of elevated land and include a range of associated infrastructure and built form such as runways, hangars, control towers, housing and extensive hard-standings; some of which still survive.

2.42 Whilst typically sited in rural and relatively remote locations, parts could be considered as previously developed land where built form and infrastructure remains and the land has not reverted back to agriculture.

2.43 A number of these airfields contain operational large-scale solar PV developments, including West Raynham (96.5ha), Coltishall (122.8ha) and North Creake (42ha).

2.44 This study includes an assessment of the landscape sensitivity of six former airfield sites to a range of renewable energy developments. The location of the airfields is shown in **Figure 2.4**.

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 2.4: Airfield Locations

North Norfolk District

Surrounding Local Authority boundary

Airfield

Langham Airfield

North Creake Airfield

Little Snoring Airfield

Sculthorpe Airfield

West Raynham Airfield

Coltishall Airfield

King's Lynn and West Norfolk District (B)

Breckland District

South Norfolk District

Broadland District

Norwich District (B)

Great Yarmouth District (B)

Landscape Character Types & Areas

The Broads Authority area

Coastal Plain

CP1: Bacton to Waxham

Drained Coastal Marshes

DCM1: Holkham Drained Marshes

DCM2: Blakeney, Wiveton, Cley and Salthouse Drained Marshes

Coastal Shelf

CS1: Weybourne to Mundesley Coastal Shelf

Low Plains Farmland

LPF1: North Norfolk Low Plains Farmland

Open Coastal Marshes

OCM1: North Norfolk Open Coastal Marshes

River Valleys

RV1: River Wensum and tributaries

RV2: River Bure and tributaries

RV3: River Ant and tributaries

RV4: River Stiffkey and tributaries

RV5: River Glaven and tributaries

RV6: Mundesley Beck

Rolling Open Farmland

ROF1: Holkham to Raynham

Settled Farmland

SF1: Stalham, Ludham and Potter Heigham

Tributary Farmland

TF1: North Norfolk Tributary Farmland

Rolling Heath and Arable

RHA1: Blakeney, Salthouse & Kelling

Wooded Ridge

WGR1: Wooded Glacial Cromer Ridge

0 4 8 km

Map Scale @A3: 1:220,000

CB:XX EB:Beetham_m LUC 10274_r2_FIG2-4_ThemedMap_Aierfield_Locations_A3L 13/08/2020

Source: NNDC

LUC

NORTH NORFOLK DISTRICT COUNCIL

Characteristics of Development Types and Potential Impact on Landscape

3 Characteristics of Development Types and Potential Impact on Landscape

3.1 In order to develop a method for assessing landscape sensitivity to renewable energy related development and infrastructure it is important to understand the characteristics of these developments and how they may affect the landscape.

Wind energy development

3.2 The key components of wind energy development are the wind turbines, which may be grouped together into a 'wind farm'. The majority of wind turbines consist of horizontal axis three-bladed turbines on a steel tower (as shown in the photo below).

Figure 3.1: A cluster of large-scale wind turbines (hub height 80m) at the Jacks Lane windfarm in King's Lynn and West Norfolk District, viewed from near Great Snoring (approximately 10km distant)

3.3 Other turbines are available including two bladed turbines and vertical axis turbines. All forms of turbine are usually given planning permission for 25 years, although re-powering may take place after this period has elapsed.

3.4 The main visible components of a wind turbine consist of the tower, nacelle and rotor blade system. Depending on the scale and design of the turbine, the transformer may be located inside or outside the tower. The tower itself sits on a buried concrete foundation. Access tracks are also required to get the turbines to site. The size of these tracks will vary with the size of turbine and will remain during the operation of the wind farm, although they can be narrowed during operation.

3.5 Some turbines may need to be lit at night for aviation safety reasons, although it is possible to use infra-red lighting in sensitive areas so the assumption can be that they are unlit.

3.6 For the purposes of this study, the following sizes of wind turbines have been considered as these are typical size categories that have, or are likely to, come forward based on planning applications and sizes of turbine that are being manufactured:

- Small scale wind turbines with a hub height of up to 30m, which translates to a height to the tip of the blade of up to approximately 45m.
- Medium scale wind turbines with a hub height of between 30-60m, which translates to a height to the tip of the blade of up to approximately 100m.
- Large scale turbines with a hub height of between 60-80m, which translates to a height to the tip of the blade of up to approximately 130m.

Figure 3.2: Small scale wind turbine (overall height to blade tip approximately 34.2m) within the North Norfolk landscape at East Ruston

3.7 All of these wind turbines are substantial vertical structures that may be highly visible within the landscape. The movement of the blades is a unique feature of wind energy developments, setting them apart from other stationary tall structures in the landscape. Wind energy development may affect the landscape in the following ways:

- Construction of turbines and associated infrastructure may result in direct loss of landscape features, e.g. trees and hedgerows;
- Movement of rotor blades is a unique feature of wind energy development and may affect characteristics of stillness, remoteness and solitude - larger models have slower rotor speeds than smaller models;
- The presence of turbines may increase the influence of built development on the landscape – this may be the case for scattered single turbines as well as for wind farms;
- Turbines (particularly larger models) may be perceived as out of scale in relation to human scale features in the landscape, e.g. farmsteads, rural lanes, walls, fences and hedgerows;
- Turbines on skylines may compete with existing landmark features (e.g. church towers) for prominence where prominent undeveloped skylines or landmark features are characteristic of the landscape (particularly larger scale turbines).
- Access tracks may be highly visible, particularly in open upland landscapes or undeveloped landscapes that currently may not contain tracks.

- Ancillary buildings and security requirements (such as fencing) may introduce new features into the landscape.
- Road upgrades on access routes may alter the character of rural roads.

3.8 'Shadow flicker' only theoretically occurs within ten rotor diameters of a turbine5 under specific conditions and is therefore a specific residential amenity issue rather than a landscape character issue, and so falls outside the remit of this study.

Cumulative issues

3.9 As larger numbers of wind turbines are built, it is increasingly necessary to consider their cumulative effects. Key considerations are: how different developments relate to each other, their frequency as one moves through the landscape, and their visual separation.

Field-scale solar PV development

3.10 Field-scale solar PV developments comprise arrays of photovoltaic panels, mounted on linear racks up to 3m high. These are usually positioned at a fixed angle of 20-40 degrees from the horizontal, facing south, and sited in parallel rows with gaps between the rows for access and to prevent shading of adjacent rows. The actual arrangement of the arrays within the landscape varies from scheme-to-scheme (i.e. regular layouts versus more varied and irregular, depending on the site situation). Generally though, layouts of the solar arrays tend to be in regular patterns.

Figure 3.3: Very large scale solar PV development at West Raynham airfield, North Norfolk

3.11 The solar arrays are often accompanied by on-site inverter buildings, security fencing and CCTV cameras. They tend not to be lit at night.

3.12 This study considers field-scale solar PV developments above 5MW capacity. Within the majority of the North Norfolk landscape, solar PV development above 5MW capacity is unlikely to be contained within a single field, and will therefore translate to a multi-field system.

3.13 As a guide, a 5MW capacity solar PV development would typically occupy a site area of 10 – 15 hectares (25 – 37 acres) while a 10MW PV development would occupy an area of 20 – 30 hectares, and a 20MW development 40 – 60 hectares. At the extreme upper end of the

spectrum, very large solar PV developments on former airfields could occupy a site area of up to or exceeding 100 hectares[8] (capacity approximately 50MW).

Figure 3.4: A 10MW solar PV development occupying a 27 ha site in Northrepps, North Norfolk

3.14 Panels can appear dark in colour as a result of their non-reflective coating and absorption of light. Some have been likened to poly tunnels when viewed from certain angles while other have been likened to areas of standing water (i.e. reservoirs or lakes) when viewed from certain angles and from a distance. The panels may also be seen from behind (back of the panels) or from the side (down the rows of frames) which will also influence how they are perceived.

3.15 Apart from the panels, other features of these developments can include inverters to convert the electricity from DC to AC – which may be housed within new or existing buildings, transformer and underground power cables to transfer the electricity to the National Grid, an on-site power house (usually a Portacabin with a concrete base), security fencing up to 2.5 metres in height required for insurance purposes and possibly CCTV for security reasons.

3.16 Solar PV developments, although not prominent in terms of height, can occupy substantial areas of ground which may be visible, particularly if located on slopes. Landscape effects may include the following:

- As extensive developments, field-scale solar PV developments may be particularly visible in open landscapes or on upper slopes of hillsides or where overlooked, especially where covering significant areas.
- On a sunny day they can appear blue while on a cloudy day they can appear a dark grey, both of which contrast with surrounding green areas.
- The presence of PV panels and associated infrastructure may increase the perceived human influence on the landscape and change land cover patterns of rural landscapes.
- Solar PV developments will change the land use and appearance of a field or fields, affecting land cover patterns.

[8] These figures are based on existing operational solar PV developments within North Norfolk – Source: North Norfolk District Council

- The regular edges of solar PV developments may be conspicuous in more irregular landscapes (particularly where they do not follow contours or where field boundaries are irregular in form).
- The height of racks (up to 3m) means that they may overtop typical hedgerow / hedgebank field boundaries.
- Screen planting around solar PV development can change the sense of enclosure of a landscape (NB some changes in management, such as allowing hedges to grow out, may enhance diversity and local landscape character resulting in positive change – as long as native species appropriate to the area are used).
- Construction of the solar PV development may result in damage to landscape features such as hedgerow field boundaries and alter the landscape scale.
- Conversely, mitigation for a PV development can include large scale planting schemes which can enhance the biodiversity of a field and diversify the local habitats.
- Structures may appear out of place in particularly wild or undeveloped landscapes which are valued for their qualities of remoteness.
- Ancillary buildings and security requirements (such as fencing and/or CCTV) may introduce new and unfamiliar features into the landscape, increasing the perceived human influence on the landscape and erode the intrinsically rural character.
- Field-scale solar PV schemes can take fertile agricultural land out of production for many years.

Cumulative issues

3.17 As larger numbers of solar farms are built, it is increasingly necessary to consider their cumulative effects. Key considerations are: how different developments relate to each other, their frequency as one moves through the landscape, and their visual separation.

Onshore cable routes (for offshore wind farms)

3.18 These are underground cable routes between the point at which offshore wind farm electricity cables make landfall on the coast, and an inland location where this power can be transferred to the national grid via a substation. Due to the linear nature of cable routes, running between the coast and the inland substation location, they typically traverse more than one, or even several, landscape character types/areas (e.g. the onshore cable corridor for the proposed Vanguard offshore wind farm, which would traverse four landscape character areas within North Norfolk District).

3.19 Two types of cable are available: those carrying high voltage alternating current (HVAC), and those carrying high voltage direct current (HVDC). HVDC systems are a newer technology which becomes more viable over longer transmission distances.

3.20 Underground cable corridors can be installed via either open cut trenching or horizontal directional drilling (HDD) for shorter distances, which does not require a trench. HDD is typically used for only the most sensitive areas, such as woodland and watercourses.

3.21 Depending on the size of the windfarm, either several trenches or a single, larger trench may be required, which could typically be up to 2m deep and 2m wide, containing the electricity cables within HDPE plastic ducts. The total cable corridor width (cable trench(es) plus wider temporary construction/access/maintenance zone) for installing HVAC cables is typically greater than for HVDC, but the width of land that would need to be cleared of vegetation to facilitate construction will typically fall within a range of 30-100m.

3.22 Following completion of trenching and laying of cable routes, permanent residual effects on the landscape include inspection chambers for cable jointing bays and marker posts indicating the location of the cable routes.

3.23 Cable trenches may affect the landscape in the following ways:

- Laying of the cable can result in direct loss of landscape features along the route (such as introducing gaps into hedgerows) and disturbance to ground over long distances;
- The temporary trench can be visible over long distances, particularly if it is located in an elevated position or on steep slopes;
- The construction activities can affect characteristics of stillness, remoteness and solitude – although this is temporary;
- Post-construction the recovering vegetation can produce scarring of the landscape – the time taken for vegetation to recover will depend on the type of landcover and standards of post-construction maintenance. Soil compaction on clay soils can result in long term drainage issues potentially affecting productivity.

Figure 3.5: Cable trench for the Dudgeon offshore wind farm near Stanfield, Norfolk

Cumulative issues

3.24 Cumulative issues are not considered to be as relevant to this development type as the impacts tend to be temporary. However, in areas of sensitive landcover (naturalistic areas) where recovery takes long, multiple trenches could have an adverse cumulative effect.

Substations and cable relay stations (for offshore wind farms)

3.25 Onshore infrastructure required to connect offshore windfarms to the electricity grid network includes substations (required for both HVAC and HVDC systems) and cable relay stations (not required for HVDC but often required for HVAC systems, depending on the length of the cable route).

3.26 Typical components of an electrical substation, where the onshore underground cable route connects to the national grid, include a secure outdoor compound containing switch gear and control room buildings and outdoor electrical equipment including shunt reactors and harmonic filters. The substation for the Sheringham Shoal offshore windfarm, pictured below, includes a building approximately 8m in height and electrical equipment approximately 7m in height, and occupies a site area (excluding access road) of approximately 0.7 hectares.

3.27 Cable relay stations are required in order to increase the power transfer capability of HVAC cables. They are similar to substations, comprising an outdoor compound containing reactors and switchgear. For the larger windfarms they can be large scale developments, occupying up to 10 hectares with several buildings and structures up to 18 m in height.

3.28 Landscape effects may include the following:

- Direct loss of landscape features in areas to be developed;
- The bulky industrial style structures can increase human influence and industrial character which may be particularly at odds in naturalistic or wild landscapes;
- Vehicle movements, ancillary activities/storage, and flood lighting associated with these developments can also increase human influence in naturalistic or rural landscapes.

Figure 3.6: Substation for the Sheringham Shoal offshore windfarm near Salle, Broadland District

Cumulative issues

3.29 As larger numbers of substations and cable relay stations are built, it is increasingly necessary to consider their cumulative effects.

Commercial battery storage

3.30 Commercial battery storage developments comprise individual battery units (which may be free-standing units or stored within steel shipping containers) and associated inverters (which convert DC battery power to AC grid power), transformers (transferring power between the grid and the batteries) and switchgear/control room building/cabin (up to 5m in height), all within a fenced compound which may require ground levelling.

3.31 They are increasingly being proposed in conjunction with solar PV developments and commercial wind turbines / farms, as they enable excess power generated to be stored and transferred back to the grid, improving the economic viability of solar farms in the absence of Government subsidies.

3.32 Battery storage can also help National Grid maintain frequency levels and stability/reliability of electricity supply on the UK transmission network, as excess electricity generated from a variety of renewable and conventional power sources can be stored in the batteries during times of low demand, and then fed back into the grid at times of peak demand.

3.33 The scale of commercial battery storage schemes is highly variable, depending on the required storage capacity, as the individual battery packs are relatively small and therefore flexible in terms of siting. A typical site area for a 50MW capacity system is likely to be around 1 hectare, depending on the battery technology used.

3.34 Landscape effects may include the following:

- Direct loss of landscape features in areas to be developed;
- The bulky industrial style structures can increase human influence and industrial character;
- Vehicle movements, ancillary activities/storage, and flood lighting associated with these developments can also increase human influence in naturalistic or rural landscapes.

Figure 3.7: A view of the recently constructed Glassenbury battery storage compound in Kent (centre, background of image), which occupies a site area of 0.9 ha and features buildings/equipment up to 5m in height

Cumulative issues

3.35 As larger numbers of battery storage facilities are built, it is increasingly necessary to consider their cumulative effects. The storage facilities may also result in cumulative effects in combination with solar farms.

Anaerobic digestion (AD) plants

3.36 Anaerobic digestion (AD) plants can be classified into two general categories: those that process predominantly agricultural feedstock (such as manures, slurries, crops and crop residues); and those that use predominantly municipal, commercial and industrial waste streams as feedstock. The biogas produced can either be burned on-site to generate heat and/or power (Combined Heat and Power – CHP); or upgraded to biomethane for injection into the national gas grid.

3.37 The built form relating to AD plants generally comprises a series of circular fermentation tanks, which can be inflatable, and associated buildings / ancillary structures including gas to grid processing units, CHP units, control buildings and feedstock storage. The scale of these structures can vary, with the example above (at Egmere) featuring tanks up to 12.8m in height.

3.38 The total site area of AD plants currently operational within North Norfolk varies from around 2.5 hectares to approximately 8 hectares.

3.39 Landscape effects may include the following:

- Direct loss of landscape features in areas to be developed;
- The bulky industrial style structures can increase human influence and industrial character;
- Vehicle movements, ancillary activities/storage, and flood lighting associated with these developments can also increase human influence in naturalistic or rural landscapes.

Figure 3.8: Existing AD plant at Egmere, with feedstock storage mound in right of image.

Cumulative issues

3.40 As larger numbers of AD plants are built, it is increasingly necessary to consider their cumulative effects.

Reservoirs

3.41 There are a number of existing agricultural water storage reservoirs for irrigation within the North Norfolk landscape. These are typically off-stream structures that receive no natural water inflow apart from rainfall. With the exception of sites with clay sub-soil (very limited in North Norfolk), these reservoirs require butyl rubber linings.

3.42 Surrounding the water body are earth embankments, constructed from the excavated material removed to create the reservoir, which can be several metres in height above the prevailing ground level. Depending on the existing landform, embankments may not be needed on all sides of a reservoir. The profile of the embankments can vary, with shallow outside profiles potentially creating a lesser visual impact by integrating more gently into the surrounding land, but requiring a greater land area. A typical bank may have a gradient of around 1(high):3(wide), with a typical height above the existing ground level of between 2 – 4 metres. Variation in slope profile has the potential to diversify the surrounding habitat.

3.43 Existing irrigation reservoirs in North Norfolk typically occupy a site area (including embankments) of between 2 – 5 hectares.

Figure 3.9: Reservoir at Holkham (total area approx 5 ha), showing grassed embankments and rubber lining.

3.44 Landscape effects may include the following:

- Development of reservoirs could result in direct loss of landscape features within the development footprint;
- Reservoirs, especially those with engineered steep banks, introduce man-made elements to the landscape and can affect naturalistic and undeveloped qualities of more remote landscapes;
- This type of development may be particularly visible in open landscapes, or where overlooked from higher ground;
- On a sunny day reflected light from water can enhance visibility of these features and affect patterns of land cover.

Cumulative issues

3.45 As larger numbers of reservoirs are built, it is increasingly necessary to consider their cumulative effects.

Methodology for the

Landscape Sensitivity Assessment

4 Methodology for the Landscape Sensitivity Assessment

Spatial Framework

4.1 As explained in Chapter 2, North Norfolk's Landscape Character Types (LCTs) form the spatial framework and evidence base for this Landscape Sensitivity Assessment. Six individual airfields have also been selected to assess separately.

Developments assessed

4.2 Landscape sensitivity is assessed for all the types of development set out in Chapter 3. In the case of wind turbines the assessment considers sensitivity to the presence of that general size of turbine without being specific about numbers of turbines. Any information about cumulative impact is given as part of the guidance in Section 6.

Approach to assessing sensitivity

4.3 At the time of undertaking the assessment in 2018 there was no published method for evaluating the sensitivity of different types of landscape to development. The approach taken in this study therefore builds on LUC's considerable experience from studies of a similar nature as well as the guidance set out in the following documents, which were current at the time:

- Landscape Character Assessment Guidance for England and Scotland Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity (2004) Scottish Natural Heritage, Countryside Agency [9];
- Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA 3), (2013) The Landscape Institute, Institute for Environmental Management and Assessment (IEMA);
- An Approach to Landscape Character Assessment, (2014) Natural England.

4.4 Topic Paper 6, GLVIA 3 and Natural England's approach to landscape sensitivity assessment advocate the use of professional judgement and an understanding of landscape character to understand what makes one landscape more or less sensitive than another to particular forms of development. Key to this is an understanding of which aspects of the landscape are particularly susceptible to the type of development proposed. These include both physical and perceptual characteristics.

4.5 Paragraph 4.2 of Topic Paper 6 states that:

'Judging landscape character sensitivity requires professional judgement about the degree to which the landscape in question is robust, in that it is able to accommodate change without adverse impacts on character. This involves making decisions about whether or not significant characteristic elements of the landscape will be liable to loss... and whether important aesthetic aspects of character will be liable to change'.

4.6 GLVIA 3 suggests that sensitivity combines judgements of the susceptibility of a receptor to change and the value related to that receptor. Although GLVIA 3 is focussed on individual development proposals, the same principle can be applied to identifying landscape sensitivity as part of strategic landscape planning studies, as confirmed in Natural England's 'Approach to landscape sensitivity assessment' (2019).

[9] This study was undertaken before the publication of Natural England's 'An approach to landscape sensitivity assessment – to inform spatial planning and land management', June 2019, which now replaces Topic Paper 6. A review of the methodology was undertaken in October 2021 and it is in line with NE's new guidance.

4.7 In this study **landscape sensitivity** is a judgement based on:

- **Landscape susceptibility** – the extent to which the landscape can accommodate change of a particular type or nature without undue negative consequences;
- **Landscape value** – the relative value that is attached to different landscapes by society[10].

4.8 In this study the following definition of sensitivity has been used:

Landscape sensitivity is the extent to which the character of the landscape is susceptible to change as a result of introducing a particular type of development type into a landscape character area, in principle, and the value attached to that landscape.

4.9 It should be noted that the sensitivity evaluation cannot be used as a definitive statement on the suitability of a certain location for a particular development. All applications for development will need to be assessed on their individual merits through the planning process, including LVA/LVIA which are required for detailed planning and design.

Assessment Criteria

4.10 This landscape sensitivity assessment is based on an assessment of landscape character using carefully defined criteria which reflect different attributes of the landscape that can potentially be affected by each development type. Reflecting the two core components of landscape sensitivity, the assessment criteria are subdivided into those relating to **susceptibility** and those relating to **value**, and are set out in **Tables 4.1 – 4.5** below.

Susceptibility criteria

4.11 The susceptibility criteria are focussed on those aspects of the landscape that have a bearing on sensitivity to renewable energy types. Information about landscape character has been drawn from the updated North Norfolk Landscape Character Assessment, and checked in the field.

4.12 The tables below set out assessment criteria for each renewable energy type, and indicate attributes that suggest higher or lower sensitivity.

Value criteria

4.13 GLVIA 3 states that the value of landscape receptors will to some degree reflect landscape designations and the level of importance that they signify, although there should not be over-reliance on designations as the sole indicator of value. Box 5.1 on Page 84 of GLVIA 3 sets out the range of factors that can help in the identification of relative landscape value and these have been used, alongside landscape designations, to help define the value criteria for the sensitivity assessment. The Valued Features and Qualities identified in the North Norfolk Landscape Character Assessment have provided the essential information to inform judgements for each of the value criteria.

[10] These definitions are taken from the Glossary in the 3rd Edition Guidelines for Landscape and Visual Impact Assessment (GLVIA3).

Wind Energy Development

Table 4.1: Sensitivity assessment criteria and definitions in relation to Wind Energy Development

Criteria	Indications of relatively higher or lower landscape sensitivity	
Susceptibility Criteria		
Topography and skylines	Flat and uniform landscapes, smooth, gently undulating lowland landscapes or larger plateau areas are likely to be less sensitive to wind energy development than a landscape with a dramatic or complex landform or distinct landform features, such as ridges or valleys, that contribute more strongly to landscape character, and which may be obscured by or require more extensive modification to accommodate new development. Prominent and distinctive and/or undeveloped skylines, or skylines with important landmark features, are likely to be more sensitive to wind energy development because turbines may compete with/detract from these skylines as features in the landscape. Important landmark features on the skyline might include historic features or monuments, such as church towers/spires or vernacular villages.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; OS mapping showing contours.	
	Some indicators of lower sensitivity • Flat and uniform landform • Plateau areas (of sufficient size to allow turbines to be sited without significant skyline impact on surrounding landscapes) • Simple, featureless landform • Non-prominent skylines	**Some indicators of higher sensitivity** • Irregular or complex landform • Narrow valleys with pronounced slopes • Distinct landform features, e.g. ridges, plateau edges or distinctive glacial features such as eskers • Landmark (historic) skyline features
Landcover	Landscapes containing extensive and consistent landcover patterns are likely to have a lower sensitivity to wind energy development, compared to landscapes with complex landcover patterns. Man-made surfaces or brownfield sites are likely to have lower sensitivity while naturalistic landcover elements such as woodlands, rivers/streams/water bodies, salt marsh, reedbeds, orchards, meadows, heathland, unimproved or semi-improved grasslands, parkland and wood pasture, will increase sensitivity to wind energy development. The modern arable landcover common across much of North Norfolk is likely to fall somewhere between the above two in terms of its sensitivity to wind energy development, depending on the interplay of other criteria, e.g. scale. NB The consideration of potential impact on higher quality agricultural land (defined through the Agricultural Land Classification) is specifically excluded from this assessment, although it is recognised that this may form a material planning consideration during the planning process.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; OS mapping; aerial imagery (Google Earth); mapped habitat / nature conservation designation data	
	Some indicators of lower sensitivity • Brownfield land • Extensive and uniform/regular landcover (non-naturalistic) • Commercial forestry plantations	**Some indicators of higher sensitivity** • Naturalistic landcover • Complex/irregular field pattern • Mosaics of landcover features

<table>
<tr><td rowspan="4">Sense of openness/ enclosure</td><td colspan="2">Landscapes of open and exposed character would have a higher sensitivity to wind energy development due to the lack of visual screening, both of the turbines themselves and lesser opportunities for screening of associated elements such as tracks and fencing. This means turbines are likely to be visible over very long distances with no break from their presence in views. An open landscape is also likely to result in a greater likelihood of cumulative interactions between developments.

Conversely, landscapes with a higher degree of visual containment (e.g. due to landform or vegetation such as high hedges) are likely to have higher potential to visually absorb the turbines and their associated structures.</td></tr>
<tr><td colspan="2">Data Sources:

North Norfolk Landscape Character Assessment; Field survey; OS mapping data.</td></tr>
<tr><td>Some indicators of lower sensitivity

• Enclosure provided by vegetation</td><td>Some indicators of higher sensitivity

• Exposed landscapes with no sense of enclosure</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td rowspan="4">Scale (landform and component landscape features) and landscape pattern/ complexity</td><td colspan="2">Developments that fit the scale of the landscape, both in terms of overall landscape pattern and individual features, will result in lower levels of impact (landscape sensitivity to developments of an appropriate size and scale will be lower).

Larger scale landscapes and those that lack human scale features (such as farmsteads, rural lanes, walls, fences and hedgerows) are likely to be less sensitive to the large scale features such as wind turbines while existing human scale features in the landscape in the form of existing buildings or trees, or small scale intricate landscape patterns (e.g. smaller and/or irregular field sizes) will increase sensitivity to these larger scale developments.</td></tr>
<tr><td colspan="2">Data Sources:

North Norfolk Landscape Character Assessment; Field survey; OS mapping data; Aerial imagery (Google Earth)</td></tr>
<tr><td>Some indicators of lower sensitivity

• Large scale, uniform landscapes
• Absence of human scale features</td><td>Some indicators of higher sensitivity

• Intimate and small-scale landscapes
• Small-scale field systems – e.g. traditional pastoral landscapes
• Human scale features – e.g. church towers</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td rowspan="4">Sense of tranquillity, remoteness and rurality; current level of human influence/ development</td><td colspan="2">Landscapes that are relatively tranquil (due to freedom from human activity and disturbance and having a perceived naturalness), or that have a strong feel of remoteness or traditional rurality with few modern human influences tend to increase levels of sensitivity to wind energy development, compared to landscapes that have a busier character, sources of human noise and activity or visible signs of built form or other development; particularly larger-scale modern infrastructure, industry or housing, or commercial forestry. In areas with existing built development/vertical structures, cluttering of skylines may become an issue, depending on the siting and design of structures but this needs to be assessed on a case by case basis.</td></tr>
<tr><td colspan="2">Data Sources:

North Norfolk Landscape Character Assessment; Field survey; OS mapped data; tranquillity and dark skies data; Undeveloped Coast Local Plan policy area; AONB Integrated Landscape Character Guidance</td></tr>
<tr><td>Some indicators of lower sensitivity

• Presence of larger-scale modern infrastructure, industry or housing
• Commercial forestry plantations</td><td>Some indicators of higher sensitivity

• Strongly rural, tranquil areas with little or no existing settlement/built form/human activity
• Historic buildings/settlements</td></tr>
<tr><td colspan="2"></td></tr>
</table>

<table>
<tr><td rowspan="4">Time depth / historical continuity</td><td colspan="2">Historic landscape types (HLTs) such as commons, unimproved intertidal or marine marsh, informal parklands and pre-18th century enclosure will have a higher sensitivity to the introduction of modern built form such as wind turbines, due to their strong historic qualities and the time depth they give to the landscape, plus the potential for preserved archaeological evidence.</td></tr>
<tr><td colspan="2">Data Sources:
Norfolk Historic Landscape Characterisation Report and dataset (2009); OS mapping; Aerial imagery (Google Earth)</td></tr>
<tr><td>Some indicators of lower sensitivity
Absence of historic landscape types / dominance of modern land uses such as 20th Century intensive agriculture , urban or industrial development</td><td>Some indicators of higher sensitivity
Presence / dominance of historic landscape types</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="3">Value criteria</td></tr>
<tr><td rowspan="4">Presence of landscape designations and extent to which their defined special qualities could be affected</td><td colspan="2">Landscapes that are formally designated for their scenic quality indicate areas of higher landscape value. The degree of sensitivity depends on the extent to which the special qualities of the designated landscape could be affected by the development type. Areas that are designated as an AONB or Heritage Coast and whose special qualities are likely to be adversely affected by wind turbines will have a higher sensitivity than areas outside a designated landscape or whose defined special qualities are not likely to be negatively impacted.</td></tr>
<tr><td colspan="2">Data Sources:
Designated area boundaries; ‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment</td></tr>
<tr><td>Some indicators of lower sensitivity
Outside a landscape designation
Defined special qualities unlikely to be adversely affected by wind energy development</td><td>Some indicators of higher sensitivity
Inside a landscape designation
Defined special qualities likely to be adversely affected by wind energy development</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td rowspan="4">Other indicators of value not captured through other criteria: scenic quality, rarity, intactness, representativeness, nature conservation and cultural heritage interests, recreational value, and associations with artists or writers.

[N.B. Above indicators relate to those outlined in Box 5.1 of GLVIA3]</td><td colspan="2">Undesignated landscapes that have a high scenic quality (i.e. in aesthetic terms), and/or exhibit a strong character or sense of place, will be more sensitive than landscapes of low scenic quality or with a weak sense of place.
Landscapes that contain rare elements or features or a rare Landscape Character Type will be more sensitive than landscapes that are commonplace or not particularly notable examples of a type.
Landscapes that are highly intact (i.e. key characteristic elements of the landscape are in good condition) are likely to be more sensitive than landscapes that are less intact.
Landscapes of a particular character and/or features or elements which are considered particularly important examples are likely to be more sensitive than landscapes that are less representative of their type.
Landscapes that have natural or heritage conservation interest (indicated by the presence of wildlife, earth science or cultural designations) are likely to be more sensitive than landscapes without such interests.
Landscapes that are valued for leisure and recreation are likely to be more sensitive to development than landscapes that are not.
Landscapes that have strong associations with writers or artists may have a higher sensitivity than areas that are lacking in these links.</td></tr>
<tr><td colspan="2">Data Sources:
‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment; Field survey; OS mapping; designated area boundaries; footpaths; Aerial imagery (Google Earth)</td></tr>
<tr><td>Some indicators of lower sensitivity
Absence of other indicators of value across much of the landscape</td><td>Some indicators of higher sensitivity
Presence / concentration of other indicators of value</td></tr>
<tr><td colspan="2"></td></tr>
</table>

Field-scale Solar PV Energy Development

Table 4.2: Sensitivity assessment criteria and definitions in relation to Field-scale Solar PV energy development

<table>
<tr><th>Criteria</th><th colspan="2">Indications of relatively higher or lower landscape sensitivity</th></tr>
<tr><td colspan="3">Susceptibility Criteria</td></tr>
<tr><td rowspan="4">Topography and skylines</td><td colspan="2">Low-lying developments such as field-scale solar PV development will typically be less easily perceived in flat landscapes than on slopes, especially higher slopes, or where overlooked by higher vantage points. Therefore, flat and uniform landscapes, smooth, gently undulating lowland landscapes or larger plateau areas are likely to be less sensitive to field-scale solar PV development than a landscape with a dramatic or complex landform or distinct landform features, such as ridges or valleys, or a prominent rolling landform with highly visible / pronounced slopes, that contribute more strongly to landscape character.

Due to the limited height of solar PV panels (typically 3m), they are unlikely to form prominent features on the skyline, except where sited on an otherwise featureless ridgeline and subject to longer distance views.</td></tr>
<tr><td colspan="2">Data Sources:

North Norfolk Landscape Character Assessment; Field survey; OS contours</td></tr>
<tr><td>Some indicators of lower sensitivity
Flat, uniform landform, e.g. expansive lowland landscapes
Plateau areas</td><td>Some indicators of higher sensitivity
Pronounced slopes
Irregular or complex landform
Narrow valleys
Distinctive landform/skyline features, e.g. ridges and glacial eskers or historic features on skylines</td></tr>
<tr><td rowspan="4">Landcover</td><td colspan="2">Landscapes containing existing hard surfacing or built elements (e.g. previously developed land/brownfield sites or large-scale horticulture) are likely to be less sensitive to industrial type developments such as field-scale solar PV development, which also has a perceived urban/industrial quality, compared to highly rural (particularly pastoral) or naturalistic landcover.

Naturalistic landcover elements such as woodlands, rivers/streams/water bodies, salt marsh, reedbeds, orchards, meadows, heathland, unimproved or semi-improved grasslands, parkland and wood pasture, will increase sensitivity to solar PV development.

The modern arable landcover common across much of North Norfolk is likely to fall somewhere between the above two in terms of its sensitivity to field-scale solar PV development, depending on the interplay of other criteria, e.g. scale.

NB The consideration of potential impact on higher quality agricultural land (defined through the Agricultural Land Classification) is specifically excluded from this assessment, although it is recognised that this may form a material planning consideration during the planning process.</td></tr>
<tr><td colspan="2">Data Sources:

North Norfolk Landscape Character Assessment; Field survey; OS mapping; Priority Habitat data; Aerial imagery</td></tr>
<tr><td>Some indicators of lower sensitivity
Previously developed/brownfield land
Extensive and uniform/regular landcover (non-naturalistic)</td><td>Some indicators of higher sensitivity
Naturalistic landcover such as woodlands, rivers/streams/water bodies, salt marsh, reedbeds, orchards, meadows, heathland, unimproved or semi-improved grasslands, parkland and wood pasture</td></tr>
</table>

<table>
<tr><td rowspan="4">Sense of openness/ enclosure</td><td colspan="2">Landscapes of open and exposed character would have a higher sensitivity to field-scale solar PV development due to the lack of visual screening, and lesser opportunities for screening mitigation without changing character. Conversely, landscapes with a higher degree of visual containment (e.g. due to landform or vegetation such as high hedges) are likely to have higher potential to visually absorb such development.</td></tr>
<tr><td colspan="2">Data Sources:
North Norfolk Landscape Character Assessment; Field survey</td></tr>
<tr><td>Some indicators of lower sensitivity
Fields bounded by higher hedgerows / shelter belts / woodland</td><td>Some indicators of higher sensitivity
Unenclosed landscapes
Fields bounded by low managed hedgerows, walls and fences</td></tr>
<tr><td></td></tr>
<tr><td rowspan="4">Scale (landform and component landscape features) and landscape pattern/ complexity</td><td colspan="2">Developments that fit the scale of the landscape, both in terms of overall landscape pattern and individual features, will result in lower levels of impact (landscape sensitivity to developments of an appropriate size and scale will be lower).
Larger scale, regular or uniform landscapes with consistent ground cover are likely to be less susceptible to the more expansive and larger scale developments (such as field-scale solar PV) than small-scale intricate landscapes (e.g. smaller and/or irregular field sizes).</td></tr>
<tr><td colspan="2">Data Sources:
North Norfolk Landscape Character Assessment; Field survey; OS mapping</td></tr>
<tr><td>Some indicators of lower sensitivity
Large or very large scale, uniform landscapes, e.g. extensive arable farmland with consistent large or very large field sizes</td><td>Some indicators of higher sensitivity
Intimate and small-scale landscapes
Small-scale field systems – e.g. traditional pastoral landscapes</td></tr>
<tr><td></td></tr>
<tr><td rowspan="4">Sense of tranquillity, remoteness and rurality; current level of human influence/ development</td><td colspan="2">Landscapes that are relatively tranquil (due to freedom from human activity and disturbance and having a perceived naturalness), or that have a strong feel of remoteness or traditional rurality with few modern human influences tend to increase levels of sensitivity to all types of built development compared to landscapes that have a busier character, sources of human noise and activity or visible signs of built form or other development; particularly larger-scale modern infrastructure, industry or housing, or commercial forestry.</td></tr>
<tr><td colspan="2">Data Sources:
North Norfolk Landscape Character Assessment; Field survey; OS mapped data; tranquillity and dark skies data; Undeveloped Coast Local Plan policy area; AONB Integrated Landscape Character Guidance</td></tr>
<tr><td>Some indicators of lower sensitivity
Presence of larger-scale modern infrastructure, industry or housing
Commercial forestry plantations</td><td>Some indicators of higher sensitivity
Strongly rural, tranquil areas with little or no existing settlement/built form/human activity
Historic buildings/settlements</td></tr>
<tr><td></td></tr>
<tr><td rowspan="4">Time depth / historical continuity</td><td colspan="2">Historic landscape types (HLTs) such as commons, unimproved intertidal or marine marsh, informal parklands and pre-18th century enclosure will have a higher sensitivity due to their strong historic qualities and the time depth they give to the landscape.</td></tr>
<tr><td colspan="2">Data Sources:
Norfolk Historic Landscape Characterisation Report and dataset (2009); Field survey</td></tr>
<tr><td>Some indicators of lower sensitivity
Presence / dominance of historic landscape types</td><td>Some indicators of higher sensitivity
Absence of historic landscape types / dominance of modern land uses such as 20th Century intensive agriculture , urban or industrial development</td></tr>
<tr><td></td></tr>
</table>

<table>
<tr><th colspan="3">Value criteria</th></tr>
<tr><td rowspan="3">Presence of landscape designations and extent to which their defined special qualities could be affected</td><td colspan="2">Landscapes that are formally designated for their scenic quality are likely to be more sensitive to development than undesignated areas. The degree of sensitivity depends on the extent to which the special qualities of the designated landscape could be affected by the development type. Areas that are designated as an AONB or Heritage Coast and whose defined special qualities may be adversely affected by solar PV will have a higher sensitivity than areas outside a designated landscape or whose defined special qualities are not likely to be negatively impacted.</td></tr>
<tr><td colspan="2">Data Sources:
Designated area boundaries; ‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment</td></tr>
<tr><td>Some indicators of lower sensitivity
Outside a landscape designation
Defined special qualities unlikely to be adversely affected by field scale solar PV development</td><td>Some indicators of higher sensitivity
Inside a landscape designation
Defined special qualities likely to be adversely affected by field scale solar PV development</td></tr>
<tr><td rowspan="3">Other indicators of value not captured through other criteria: scenic quality, rarity, intactness, representativeness, nature conservation and cultural heritage interests, recreational value, and associations with artists or writers.

[N.B. Above indicators relate to those outlined in Box 5.1 of GLVIA3]</td><td colspan="2">Undesignated landscapes that have a high scenic quality (i.e. in aesthetic terms), and/or exhibit a strong character or sense of place, will be more sensitive than landscapes of low scenic quality or with a weak sense of place.

Landscapes that are rare or a particularly important example of a landscape type will be more sensitive than landscapes that are commonplace or not particularly notable examples of a type.

Landscapes that are highly intact (i.e. key characteristic elements of the landscape are in good condition) are likely to be more sensitive than landscapes that are less intact.

Landscapes of a particular character and/or features or elements which are considered particularly important examples are likely to be more sensitive than landscapes that are less representative.

Landscapes that have natural or heritage conservation interest (indicated by the presence of wildlife, earth science or cultural designations) are likely to be more sensitive than landscapes without such interests.

Landscapes that are valued for leisure and recreation are likely to be more sensitive to development than landscapes that are not.

Landscapes that have strong associations with writers or artists may have a higher sensitivity than areas that are lacking in these links.</td></tr>
<tr><td colspan="2">Data Sources:
‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment; Field survey; OS mapping; designated area boundaries; footpaths; Aerial imagery (Google Earth)</td></tr>
<tr><td>Some indicators of lower sensitivity
Areas with a low scenic quality
No particularly rare or important types of landscape or features
Could be in poor condition
Likely to have a low density of presence of wildlife, earth science or cultural designations, or lack such designations
Not likely to be valued for recreation or have associations with writers or artists</td><td>Some indicators of higher sensitivity
Areas with a high scenic quality, that exhibit a rare type of landscape/ features or landscape / features are considered a particularly important example
Areas that are intact
Areas that have a high density of presence of wildlife, earth science or cultural designations
Landscapes that are valued for recreation
Landscapes that have strong associations with writers or artists</td></tr>
</table>

Onshore Cable Routes (for offshore wind farms)

Table 4.3: Sensitivity assessment criteria and definitions in relation to Onshore Cable Routes (for offshore wind farms)

Criteria	Indications of relatively higher or lower landscape sensitivity	
Susceptibility Criteria		
Topography and skylines	The clearance of vegetation associated with onshore cable routes will typically be less easily perceived in flat landscapes than on visible slopes, especially higher slopes, or where overlooked by higher vantage points. Therefore, flat and uniform landscapes, smooth, gently undulating lowland landscapes or larger plateau areas are likely to be less susceptible to the laying of onshore cable routes than landscapes with dramatic or complex landforms or distinct landform features such as ridges or valleys or prominent rolling hills with highly visible / pronounced slopes. These effects will diminish over time as landcover redevelops, but there is potential for longer-lasting impact in more widely visible locations.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; OS maps and contours	
	Some indicators of lower sensitivity • Flat, expansive lowland landscapes • Plateau areas	**Some indicators of higher sensitivity** • Pronounced slopes • Irregular or complex landform • Narrow valleys • Distinctive landform features, e.g. ridges and glacial eskers
Landcover	Previously developed land or brownfield sites are likely to be less sensitive to the open cut trenching required to lay onshore cable routes compared to more naturalistic landcover such as woodlands, rivers/streams/water bodies, salt marsh, reedbeds, orchards, meadows, heathland, unimproved or semi-improved grasslands, parkland and wood pasture. Arable land also has a relatively lower sensitivity to onshore cable routes (excluding hedgerow/treed field boundaries), due to the relative ease of restoring such land (provided top soil has been carefully retained in good condition during construction). NB The consideration of potential impact on higher quality agricultural land (defined through the Agricultural Land Classification) is specifically excluded from this assessment, although it is recognised that this may form a material planning consideration during the planning process.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; OS mapping; Priority Habitat data; Aerial imagery	
	Some indicators of lower sensitivity • Previously developed/brownfield land • Modern, large-scale arable landcover	**Some indicators of higher sensitivity** • Naturalistic landcover • Mosaic of landcover features • Smaller-scale fields with greater density of hedgerow/treed boundaries
Sense of openness/ enclosure	Landscapes of open and exposed character would have a relatively higher sensitivity to onshore cable routes due to the lack of visual screening. Conversely, landscapes with a higher degree of visual containment (e.g. due to landform or vegetation) are likely to have higher potential to visually screen cable route corridors, providing that any features crossed can be restored succesfully.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey	

	Some indicators of lower sensitivity • A semi-enclosed landscape with features such as hedgerows and shelter belts that could help filter/ screen views	**Some indicators of higher sensitivity** • An open landscape with no features to filter views of the open cut trenching
Sense of tranquillity, remoteness and rurality; current level of human influence/ development	Landscapes that are relatively tranquil (due to freedom from human intervention, activity and disturbance and having a perceived naturalness) will have increased sensitivity to the disturbance associated with onshore cable routes, compared to landscapes that have a busier character, sources of human noise and activity or visible signs of built form or other development.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; OS mapped data; tranquillity and dark skies data; Undeveloped Coast Local Plan policy area; AONB Integrated Landscape Character Guidance	
	Some indicators of lower sensitivity • Presence of human activity	**Some indicators of higher sensitivity** • Absence of human activity
Time depth / historical continuity	Historic landscape types (HLTs) such as commons, unimproved intertidal or marine marsh, informal parklands and pre-18th century enclosure will have a higher sensitivity to open cut trenching to lay onshore cable routes due to their strong historic qualities and greater difficulty in restoring the landscape. The ground disturbance associated with the construction of onshore cable routes (via open cut trenching or horizontal directional drilling) may result in long-term or permanent harm to or loss of these more historic areas.	
	Data Sources: Norfolk Historic Landscape Characterisation Report and dataset (2009); Field survey	
	Some indicators of lower sensitivity • Presence / dominance of historic landscape types	**Some indicators of higher sensitivity** • Absence of historic landscape types / dominance of modern land uses such as 20th Century intensive agriculture
Value criteria		
Presence of landscape designations and extent to which their defined special qualities could be affected	Landscapes that are formally designated for their scenic quality indicate areas of higher landscape value. The degree of sensitivity depends on the extent to which the special qualities of the designated landscape could be affected by the type of development. Areas that are designated as an AONB or Heritage Coast and whose defined special qualities may be adversely affected by laying of cable routes will have a higher sensitivity than areas outside a designated landscape or whose defined special qualities are not likely to be negatively impacted.	
	Data Sources: Designated area boundaries; 'Valued Features and Qualities' sections of the North Norfolk Landscape Character Assessment	
	Some indicators of lower sensitivity • Outside a landscape designation • Defined special qualities unlikely to be permanently adversely affected by laying of cable routes	**Some indicators of higher sensitivity** • Inside a landscape designation • Defined special qualities likely to be permanently adversely affected by laying of cable routes
Other indicators of value not captured through other criteria: scenic quality, rarity, intactness,	Undesignated landscapes that have a high scenic quality (i.e. in aesthetic terms), and/or exhibit a strong character or sense of place, will be more sensitive than landscapes of low scenic quality or with a weak sense of place. Landscapes that are rare or a particularly important example of a landscape type will be more sensitive than landscapes that are commonplace or not particularly notable examples of a type.	

<table>
<tr><td rowspan="3">representativeness, nature conservation and cultural heritage interests, recreational value, and associations with artists or writers.

[N.B. Above indicators relate to those outlined in Box 5.1 of GLVIA3]</td><td colspan="2">Landscapes that are highly intact (i.e. key characteristic elements of the landscape are in good condition) are likely to be more sensitive than landscapes that are less intact.

Landscapes that have natural or heritage conservation interest (indicated by the presence of wildlife, earth science or cultural designations) are likely to be more sensitive than landscapes without such interests.

Landscapes that are valued for leisure and recreation are likely to be more sensitive to development than landscapes that are not.

Landscapes that have strong associations with writers or artists may have a higher sensitivity than areas that are lacking in these links.</td></tr>
<tr><td colspan="2">Data Sources:

‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment; Field survey; OS mapping; designated area boundaries; footpaths; Aerial imagery (Google Earth)</td></tr>
<tr><td>Some indicators of lower sensitivity
Areas with a low scenic quality
No particularly rare or important types of landscape or features
Could be in poor condition
Likely to have a low density of presence of wildlife, earth science or cultural designations, or lack such designations
Not likely to be valued for recreation or have associations with writers or artists</td><td>Some indicators of higher sensitivity
Areas with a high scenic quality, that exhibit a rare type of landscape/ features or landscape / features are considered a particularly important example
Areas that are intact
Areas that have a high density of presence of wildlife, earth science or cultural designations
Landscapes that are valued for recreation
Landscapes that have strong associations with writers or artists</td></tr>
</table>

N.B. ‘Scale’ is not a susceptibility criterion for onshore cable routes, as landscape scale would not be influenced by temporary cable laying operations.

Industrial Type Developments

Table 4.4: Sensitivity assessment criteria and definitions in relation to Industrial Type Developments (incorporating Anaerobic Digestion Plants, Sub-Stations and Cable Relay Stations for offshore windfarms, and Commercial Battery Storage Schemes)

Criteria	Indications of relatively higher or lower landscape sensitivity	
Susceptibility Criteria		
Topography and skylines	Prominent and distinctive and/or undeveloped skylines, or skylines with important landmark features, are likely to be more sensitive to industrial type developments than landscapes with non-prominent or unremarkable skylines.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey	
	Some indicators of lower sensitivity • Non-prominent skylines	**Some indicators of higher sensitivity** • Prominent, undeveloped skylines • Landmark (historic) skyline features
Landcover	Landscapes containing existing hard surfacing or built elements (e.g. urban areas or brownfield sites) are likely to be less sensitive to these types of developments which have a perceived urban/industrial quality, compared to areas of naturalistic landscape. The arable landcover common across much of North Norfolk is likely to fall somewhere between the above two in terms of its sensitivity to industrial type developments, depending on the interplay of other criteria, e.g. skylines.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; Priority Habitat data; Aerial imagery	
	Some indicators of lower sensitivity • Previously developed/brownfield land	**Some indicators of higher sensitivity** • Naturalistic landcover
Sense of openness/ enclosure	Landscapes of open and exposed character would have a higher sensitivity to industrial type developments due to the lack of visual screening, and lesser opportunities for screening mitigation without changing character. Conversely, landscapes with a higher degree of visual containment (e.g. due to landform or vegetation) are likely to have higher potential to visually absorb such development.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey	
	Some indicators of lower sensitivity • More enclosed landscape, perhaps as a result of higher hedgerows / shelter belts / woodland	**Some indicators of higher sensitivity** • Open and exposed landscape with little opportunity for screening
Scale (landform and component landscape features) and landscape pattern/ complexity	Developments that fit the scale of the landscape will result in lower levels of impact. Larger scale landscapes are likely to have a lower sensitivity to these features than more intimate small scale landscapes.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey	
	Some indicators of lower sensitivity • Large scale landscapes	**Some indicators of higher sensitivity** • Intimate and small-scale landscapes

<table>
<tr><td rowspan="4">Sense of tranquillity, remoteness and rurality; current level of human influence/ development</td><td colspan="2">Landscapes that are relatively tranquil (due to freedom from human activity and disturbance and having a perceived naturalness), or that have a strong feel of remoteness or traditional rurality with few modern human influences will have increased sensitivity to industrial type developments compared to landscapes that have a busier character, sources of human noise and activity or visible signs of built form or other development.</td></tr>
<tr><td colspan="2">Data Sources:
North Norfolk Landscape Character Assessment; Field survey; OS mapped data; tranquillity and dark skies data; Undeveloped Coast Local Plan policy area; AONB Integrated Landscape Character Guidance</td></tr>
<tr><td>Some indicators of lower sensitivity
Industrial / urban areas
Settled farmland</td><td>Some indicators of higher sensitivity
Strongly rural, tranquil areas with little or no existing settlement/built form/human activity</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td rowspan="4">Time depth / historical continuity</td><td colspan="2">Historic landscape types (HLTs) such as commons, unimproved intertidal or marine marsh, informal parklands and pre-18th century enclosure will have a higher sensitivity to industrial type developments due to their strong historic qualities and the time depth they give to the landscape, plus the potential for preserved archaeological evidence.</td></tr>
<tr><td colspan="2">Data Sources:
Norfolk Historic Landscape Characterisation Report and dataset (2009); Field survey</td></tr>
<tr><td>Some indicators of lower sensitivity
Presence / dominance of historic landscape types</td><td>Some indicators of higher sensitivity
Absence of historic landscape types / dominance of modern land uses such as 20th Century intensive agriculture , urban or industrial development</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="3">Value criteria</td></tr>
<tr><td rowspan="4">Presence of landscape designations and extent to which their defined special qualities could be affected</td><td colspan="2">Landscapes that are formally designated for their scenic quality indicate areas of higher landscape value. The degree of sensitivity depends on the extent to which the special qualities of the designated landscape could be affected by the development type. Areas that are designated as an AONB or Heritage Coast and whose special qualities may be adversely affected by industrial types developments such as anaerobic digestion plants, sub-stations and cable relay stations for offshore windfarms, and commercial battery storage schemes will have a higher sensitivity than areas outside a designated landscape or whose defined special qualities are not likely to be negatively impacted.</td></tr>
<tr><td colspan="2">Data Sources:
Designated area boundaries; ‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment</td></tr>
<tr><td>Some indicators of lower sensitivity
Outside a landscape designation
Defined special qualities unlikely to be adversely affected by the above industrial type developments</td><td>Some indicators of higher sensitivity
Inside a landscape designation
Defined special qualities likely to be adversely affected by the above industrial type developments</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Other indicators of value not captured through other criteria: scenic quality, rarity, intactness,</td><td colspan="2">Undesignated landscapes that have a high scenic quality (i.e. in aesthetic terms), and/or exhibit a strong character or sense of place, will be more sensitive than landscapes of low scenic quality or with a weak sense of place.
Landscapes that are rare or a particularly important example of a landscape type will be more sensitive than landscapes that are commonplace or not particularly notable examples of a type.</td></tr>
</table>

<table>
<tr><td rowspan="3">representativeness, nature conservation and cultural heritage interests, recreational value, and associations with artists or writers.

[N.B. Above indicators relate to those outlined in Box 5.1 of GLVIA3]</td><td colspan="2">Landscapes that are highly intact (i.e. key characteristic elements of the landscape are in good condition) are likely to be more sensitive than landscapes that are less intact.

Landscapes that have natural or conservation interest (indicated by the presence of wildlife, earth science or cultural designations) are likely to be more sensitive than landscapes without such interests.

Landscapes that are valued for leisure and recreation are likely to be more sensitive to development than landscapes that are not.

Landscapes that have strong associations with writers or artists may have a higher sensitivity than areas that are lacking in these links.</td></tr>
<tr><td colspan="2">Data Sources:

‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment; Field survey; OS mapping; designated area boundaries; footpaths; Aerial imagery (Google Earth)</td></tr>
<tr><td>Some indicators of lower sensitivity
Areas with a low scenic quality
No particularly rare or important types of landscape or features
A landscape assessed as being in poor condition
Likely to have a low density of presence of wildlife, earth science or cultural designations, or lacking such designations
Not likely to be valued for recreation or have associations with writers or artists</td><td>Some indicators of higher sensitivity
Areas with a high scenic quality, that exhibit a rare type of landscape/ features or landscape / features are considered a particularly important example
Areas that are intact
Areas that have a high density of presence of wildlife, earth science or cultural designations
Landscapes that are valued for recreation
Landscapes that have strong associations with writers or artists</td></tr>
</table>

Reservoirs

Table 4.5: Sensitivity assessment criteria and definitions in relation to Reservoirs

Criteria	Indications of relatively higher or lower landscape sensitivity	
Susceptibility Criteria		
Topography and skylines	Reservoirs require embankments and therefore can be integrated more readily into undulating landscapes than flat landscapes. Landscapes containing valleys, bowls and landforms may therefore have a lower sensitivity to such features than flat landscapes.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; OS mapping/ contours	
	Some indicators of lower sensitivity • Landscapes containing valleys, bowls and landforms	**Some indicators of higher sensitivity** • Flat landscapes such as floodplains, coastal marshes and plateaux • Locations on prominent skylines
Landcover	The arable landcover common across much of North Norfolk is strongly associated with reservoirs, due to the requirement for crop irrigation. The building of reservoirs will result in loss of landcover. Previously developed land/brownfield sites are likely to have lower sensitivity than more naturalistic landcover elements such as woodlands, rivers/streams/water bodies, salt marsh, reedbeds, orchards, meadows, heathland, unimproved or semi-improved grasslands, parkland and wood pasture. Arable farmland is likely to lie somewhere in between these two extremes. NB The consideration of potential impact on higher quality agricultural land (defined through the Agricultural Land Classification) is specifically excluded from this assessment, although it is recognised that this may form a material planning consideration during the planning process.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; Priority Habitat data; Aerial imagery	
	Some indicators of lower sensitivity • Previously developed/brownfield land	**Some indicators of higher sensitivity** • Naturalistic landcover
Sense of openness/ enclosure	Landscapes of open and exposed character would have a higher sensitivity to reservoir developments due to the lack of visual screening. Conversely, landscapes with a higher degree of visual containment (e.g. due to landform or vegetation) are likely to have higher potential to visually absorb such development.	
	Data Sources: North Norfolk Landscape Character Assessment; Field survey; OS mapping	
	Some indicators of lower sensitivity • Landscapes with a sense of enclosure resulting from landform/ vegetation	**Some indicators of higher sensitivity** • An open and exposed landscape
Scale (landform and component landscape features) and landscape pattern/ complexity	Developments that accords with the scale of the landscape, both in terms of overall landscape pattern and individual features, will result in lower levels of impact (landscape sensitivity to developments of an appropriate size and scale will be lower). Larger scale landscapes are likely to have a lower sensitivity to reservoirs of this size (2–5 hectares) than smaller scale landscapes. Landscapes with a naturalistic pattern are likely to have a higher sensitivity due to the engineered appearance of most reservoirs (albeit it is possible to design a reservoir to appear more naturalistic).	

<table>
<tr><td></td><td colspan="2">Data Sources:
North Norfolk Landscape Character Assessment; Field survey; OS data</td></tr>
<tr><td></td><td>Some indicators of lower sensitivity
• Large scale and regular landscapes</td><td>Some indicators of higher sensitivity
• Intimate and small-scale landscapes
• Landscapes with a naturalistic landscape pattern</td></tr>
<tr><td rowspan="3">Sense of tranquillity, remoteness and rurality; current level of human influence/ development</td><td colspan="2">Landscapes that are relatively tranquil (due to freedom from human activity and disturbance and having a perceived naturalness), or that have a strong feel of remoteness or traditional rurality with few modern human influences tend to increase levels of sensitivity to reservoirs compared to landscapes that have a busier character, sources of human noise and activity or visible signs of built form or other development.</td></tr>
<tr><td colspan="2">Data Sources:
North Norfolk Landscape Character Assessment; Field survey; OS mapped data; tranquillity and dark skies data; Undeveloped Coast Local Plan policy area; AONB Integrated Landscape Character Guidance</td></tr>
<tr><td>Some indicators of lower sensitivity
• Busy landscapes with sources of human noise and activity</td><td>Some indicators of higher sensitivity
• Strongly rural, tranquil areas with little or no existing settlement/built form/human activity</td></tr>
<tr><td rowspan="3">Time depth / historical continuity</td><td colspan="2">Historic landscape types (HLTs) such as commons, unimproved intertidal or marine marsh, informal parklands and pre-18th century enclosure will have a higher sensitivity to reservoir development due to their strong historic qualities and the time depth they give to the landscape, plus the potential for preserved archaeological evidence.</td></tr>
<tr><td colspan="2">Data Sources:
Norfolk Historic Landscape Characterisation Report and dataset (2009); Field survey</td></tr>
<tr><td>Some indicators of lower sensitivity
• Presence / dominance of historic landscape types</td><td>Some indicators of higher sensitivity
• Absence of historic landscape types / dominance of modern land uses such as 20th Century intensive agriculture , urban or industrial development</td></tr>
<tr><td colspan="3">Value criteria</td></tr>
<tr><td rowspan="3">Presence of landscape designations and extent to which their defined special qualities could be affected</td><td colspan="2">Landscapes that are formally designated for their scenic quality indicate areas of higher landscape value. The degree of sensitivity depends on the extent to which the special qualities of the designated landscape could be affected by the development type. Areas that are designated as an AONB or Heritage Coast and whose special qualities may be adversely affected by reservoirs will have a higher sensitivity than areas outside a designated landscape or whose defined special qualities are not likely to be negatively impacted.</td></tr>
<tr><td colspan="2">Data Sources:
Designated area boundaries; ‘Valued Features and Qualities’ sections of the North Norfolk Landscape Character Assessment</td></tr>
<tr><td>Some indicators of lower sensitivity
• Outside a landscape designation
• Defined special qualities unlikely to be adversely affected by reservoirs</td><td>Some indicators of higher sensitivity
• Inside a landscape designation
• Defined special qualities likely to be adversely affected by reservoirs</td></tr>
</table>

<table>
<tr><td rowspan="4">Other indicators of value not captured through other criteria: scenic quality, rarity, intactness, representativeness, nature conservation and cultural heritage interests, recreational value, and associations with artists or writers.

[N.B. Above indicators relate to those outlined in Box 5.1 of GLVIA3]</td><td colspan="2">Undesignated landscapes that have a high scenic quality (i.e. in aesthetic terms), and/or exhibit a strong character or sense of place, will be more sensitive than landscapes of low scenic quality or with a weak sense of place.

Landscapes that are rare or a particularly important example of a landscape type will be more sensitive than landscapes that are commonplace or not particularly notable examples of a type.

Landscapes that are highly intact (i.e. key characteristic elements of the landscape are in good condition) are likely to be more sensitive than landscapes that are less intact.

Landscapes that have nature or heritage conservation interest (indicated by the presence of wildlife, earth science or cultural designations) are likely to be more sensitive than landscapes without such interests.

Landscapes that are valued for leisure and recreation are likely to be more sensitive to development than landscapes that are not.

Landscapes that have strong associations with writers or artists may have a higher sensitivity than areas that are lacking in these links.</td></tr>
<tr><td colspan="2">Data Sources:

'Valued Features and Qualities' sections of the North Norfolk Landscape Character Assessment; Field survey; OS mapping; designated area boundaries; footpaths; Aerial imagery (Google Earth)</td></tr>
<tr><td>Some indicators of lower sensitivity
Areas with a low scenic quality
No particularly rare or important types of landscape or features
Could be un poor condition
Likely to have a low density of presence of wildlife, earth science or cultural designations, or lack such designations
Not likely to be valued for recreation or have associations with writers or artists</td><td>Some indicators of higher sensitivity
Areas with a high scenic quality, that exhibit a rare type of landscape/ features or landscape / features are considered a particularly important example
Areas that are intact
Areas that have a high density of presence of wildlife, earth science or cultural designations
Landscapes that are valued for recreation
Landscapes that have strong associations with writers or artists</td></tr>
</table>

4.14 Sensitivity is judged on a five-point scale in this study, according to the definitions in **Table 4.6** below.

Table 4.6: Sensitivity levels and definitions

Sensitivity Level	Definition
High (H)	Key characteristics and valued attributes of the landscape are highly sensitive to change from the type and scale of development being assessed.
Moderate-High (M-H)	Key characteristics and valued attributes of the landscape are moderately to highly sensitive to change from the type and scale of development being assessed.
Moderate (M)	Key characteristics and valued attributes of the landscape are moderately sensitive to change from the type and scale of development being assessed.

Low-Moderate (L-M)	Key characteristics and valued attributes of the landscape are have a lower sensitive to change from the type and scale of development being assessed.
Low (L)	Key characteristics and valued attributes of the landscape are robust and are less likely to be adversely affected by the type and scale of development being assessed.

4.15 The sensitivity ratings are specific to the landscapes of North Norfolk, and represent the typical level of sensitivity across the entire LCT or airfield area being assessed. Particular factors, often reflecting variations in the distribution of Valued Features and Qualities identified in the North Norfolk Landscape Character Assessment, may locally increase or reduce sensitivity. Where applicable this is noted within the Overall Sensitivity Summary for the LCT.

4.16 Judgements are based on the presence of the types of development as set out in Chapter 3 of this report.

Presentation of Results

4.17 Each landscape character type and airfield is mapped (including relevant landscape designations), briefly described and a sensitivity evaluation provided for each landscape character type and airfield setting out:

- A summary of landscape character for the relevant landscape type;
- Description of the landscape against assessment criteria, with an indication as to whether the character of the landscape increases or lowers sensitivity in relation to each development type;
- A summary of overall landscape sensitivity to different development types on a five point scale, with a reason for the judgement and an indication of areas of higher and lower sensitivity.

Summary of Results

5 Summary of Results

5.1 This section presents a summary of the results of the landscape sensitivity assessment. The full landscape sensitivity assessments for each of the landscape character types (LCTs) are presented in **Appendix 1**, and for each of the airfields in **Appendix 2.**

5.2 **Tables 5.1** and **5.2** below provide an overview of the sensitivity results for LCTs and for airfields respectively. These are mapped for LCTs in **Figures 5.1 – 5.7.**

5.3 Typical scales of development assessed for each development type, were as follows:

- Large scale wind turbine: 80m hub, 130m tip;
- Medium scale wind turbine: 60m hub, 100m tip;
- Small scale wind turbine: 30m hub, 45m tip;
- Field scale solar PV: at least 10 hectares;
- Onshore cable route: 30-80m clearance width;
- Cable relay station / substation: 1 hectare;
- Commercial battery storage scheme: 1 hectare;
- Anaerobic digestion plant: 2.5 – 8 hectares; and
- Reservoir: 2 – 5 hectares.

5.4 Three of the development types discussed in **Section 3** – cable relay stations and substations, commercial battery storage schemes and anaerobic digestion plants – have been grouped in terms of the provision of sensitivity ratings as 'industrial-type' development. This is because the characteristics of this range of development types were similar and no significant differences were identified between them in terms of strategic-scale sensitivity.

Summary of Sensitivity across Landscape Character Types

Table 5.1: Sensitivity ratings for typical scales of development by LCT (excluding airfields)

LCT	Large scale wind		Medium scale wind		Small scale wind		Solar PV		Onshore cable routes		Industrial type dev		Reservoir	
	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB
Coastal Plain	H	H	MH	H	M	H	M	H	LM	MH	M	H	M	MH
Coastal Shelf	H	H	H	H	MH	H	MH	H	MH	MH	MH	H	MH	MH
Drained Coastal Marshes		H		H		H		H		H		H		H
Low Plains Farmland	H		MH		M		M		M		M		M	
Open Coastal Marshes		H		H		H		H		H		H		H
Rolling Heath & Arable		H		H		H		H		MH		H		MH
Rolling Open Farmland	H	H	MH	H	M	H	MH	H	M	MH	M	H	M	MH
River Valleys	H	H	H	H	MH	H	H	H	MH	H	MH	H	MH	H
Settled Farmland	H		MH		M		M		M		M		M	
Tributary Farmland	H	H	MH	H	M	H	MH	H	M	MH	M	H	M	MH
Wooded Ridge	H	H	H	H	MH	H	MH	H	MH	H	MH	H	MH	H

5.5 In the case of any of the types of development listed above, due regard should of course be given to the impact of the development on adjacent Landscape Types, both within NNDC District and in neighbouring Local Authority Areas.

Observations on Landscape Sensitivity to Wind Energy Development

5.6 The main visual component of wind energy developments are the wind turbines themselves. They introduce moving features into the landscape that are often large in scale and visible across long distances, affecting sense of scale, skylines and characteristics of stillness, remoteness and solitude. It is important to ensure a landscape can accommodate a turbine or turbines of the scale proposed, by virtue of its topography, scale and component features. Consideration must be given not just to the landscape type in question but also to adjacent landscape types, given the typical extent of visibility within the generally open landscape of North Norfolk.

5.7 **Figures 5.1-5.3** show the results of the landscape sensitivity assessment for the three scales of wind turbines assessed.

5.8 Generally the landscapes across North Norfolk are rural and open in character, and they contain many human scale features such as historic buildings, church towers, and hedgerow trees. As a result the landscape's sensitivity to wind energy development tends to be fairly high. In addition, sensitivity to wind energy is highest in the Norfolk Coast AONB and Heritage Coast where the tranquil and undeveloped nature of the landscape is a defined special quality of the landscape.

5.9 Reflecting these attributes, the assessment has found that there are no landscapes in North Norfolk that score 'low' or even 'low-moderate' sensitivity to commercial wind energy developments. Only the larger scale arable landscapes LCTs outside the AONB (i.e. the Rolling Open Farmland, Tributary Farmland, Low Plains Farmland, Settled Farmland and Coastal Plain) are considered to have a moderate sensitivity to the small scale wind turbines (30m hub/ 45m tip height). These same landscapes have moderate-high sensitivity to medium scale wind turbines (60m hub/100m tip height). All parts of North Norfolk have a high sensitivity to the largest scale of turbine (80m hub/130m tip height).

5.10 All areas within the AONB and Heritage Coast have the highest level of sensitivity to commercial scale wind turbines (only carefully sited small scale domestic wind turbines associated with existing buildings are likely to be appropriate in the AONB). The part of the 'Undeveloped Coast' that falls outside the AONB (i.e. the strip that occurs along the Coastal Plain LCT) has a high sensitivity to large scale turbines, a moderate-high sensitivity to medium scale turbines and a moderate sensitivity to small scale turbines.

5.11 LCTs often contain areas of higher and lower sensitivity within them - it is therefore important to take note the content of the individual LCT evaluations and the generic guidance to minimise harm to the landscape and to achieve appropriate siting and design (see **Appendix 3**).

Observations on Landscape Sensitivity to field scale solar PV

5.12 Field scale solar PV schemes result an increase in the perceived human influence on the landscape and change land cover patterns of rural landscapes. The loss of productive arable land will be a consideration in the planning balance assessment. It is important to ensure a landscape can accommodate a solar PV scheme of the scale proposed, by virtue of its topography, scale and landcover.

5.13 **Figure 5.4** shows the results of the landscape sensitivity assessment for field scale solar PV developments.

5.14 The arable character of much of North Norfolk might indicate a lower sensitivity to field scale solar PV developments. However, the elevated nature of the areas to the west and tranquil and undeveloped nature of the coast increases sensitivity. The lower sensitivity areas are to the east of the District where land is at a lower level and there are more opportunities for screening and landscape mitigation.

5.15 Reflecting these attributes, the assessment has found that there are no landscapes in North Norfolk that score 'low' or even 'low-moderate' sensitivity to the development of field scale solar

PV developments. Only the lower lying LCTs of the Low Plains Farmland, Settled Farmland and Coastal Plain LCTs are considered to have a moderate sensitivity to field scale solar PV developments while the majority of the rest of the District has a moderate-high sensitivity which indicates the need for very careful siting and design. All areas within the AONB and Heritage Coast have a high sensitivity to this scale of solar PV development. Notwithstanding this, there may be circumstances where localised variations within the AONB give rise to individual sites with characteristics less sensitive to large scale PV schemes, such as the combination of topography and boundary screening that provides containment to the existing solar farm at Northrepps.

5.16 The part of the 'Undeveloped Coast' that falls outside the AONB (i.e. the strip that occurs along the Coastal Plain LCT) has a moderate sensitivity to field scale solar PV.

5.17 LCTs often contain areas of higher and lower sensitivity within them - it is therefore important to take note the content of the individual LCT evaluations and the generic guidance to minimise harm to the landscape, to achieve good siting and design and post-construction landscape maintenance (see **Appendix 3**).

Observations on Landscape Sensitivity to Onshore Cable Routes

5.18 Onshore cable routes require temporary disruption to the landscape while the cables are being buried and during this time can affect the sense of tranquillity associated with a landscape. They can result on direct loss of landscape features such as trees and hedges and longer term scarring in terms of soil structure (depending on the ability of the ground to recover from the works). The key issue with buried cable routes is to ensure the landscape has the capacity to recover successfully after the works (e.g. through detailed post construction landscape maintenance).

5.19 **Figure 5.5** shows the results of the landscape sensitivity assessment for onshore cable routes.

5.20 The farmed arable character of much of North Norfolk means that the landscape's sensitivity to buried onshore cable routes tends to be moderate (albeit this is higher in more exposed or elevated areas), and even moderate-low in the Coastal Plain due to its lowland location and arable landcover. However, the unenclosed marshes on the coast are particularly sensitive to undergrounding activities as recovery would be more difficult in these landscapes and sensitivity in these areas is therefore high. Areas within the Norfolk Coast AONB or Heritage Coast are all high (in more naturalistic areas) or moderate-high (in farmed areas).

5.21 The part of the 'Undeveloped Coast' that falls outside the AONB (i.e. the strip that occurs along the Coastal Plain LCT) has a low-moderate sensitivity to onshore cable routes.

5.22 LCTs often contain areas of higher and lower sensitivity within them - it is therefore important to take note the content of the individual LCT evaluations and the generic guidance to minimise harm to the landscape and to achieve good siting and design (see **Appendix 3**).

Observations on Landscape Sensitivity to Industrial type development

5.23 Industrial type developments such as commercial battery storage, anaerobic digestion plants, cable relay stations and sub-stations (for offshore wind farms) result in an increase in the perceived human influence. It is important to ensure a landscape can accommodate such developments by virtue of its topography, scale, landcover and ability to screen such development.

5.24 **Figure 5.6** shows the results of the landscape sensitivity assessment for industrial type development (commercial battery storage, anaerobic digestion plants, cable relay stations and sub-stations for offshore wind farms).

5.25 The farmed rural character of much of North Norfolk provides attributes that indicate both decreased sensitivity (the regular landscape pattern of arable fields and presence of some hedgerows/ woodland providing enclosure) and increased sensitivity (open, exposed and strongly rural character with some areas of visually prominent slopes). Reflecting these attributes, the assessment has found that much of the farmland associated with the Rolling Open Farmland, Tributary Farmland, Low Plains Farmland, Settled Farmland and Coastal Plain has a moderate sensitivity to these types of development. Localised areas of lower sensitivity

are associated with existing farm complexes containing larger-scale built form, such as storage sheds, and locations with higher visual screening/containment by planting or landform.

5.26 In the Norfolk Coast AONB and Heritage Coast, where the tranquil and undeveloped nature of the landscape is a special quality of the landscape, sensitivity is high. The part of the 'Undeveloped Coast' that falls outside the AONB (i.e. the strip that occurs along the Coastal Plain LCT) has a moderate sensitivity to these types of development.

5.27 LCTs often contain areas of higher and lower sensitivity within them - it is therefore important to take note the content of the individual LCT evaluations and the generic guidance to minimise harm to the landscape and to achieve good siting and design (see **Appendix 3**).

Observations on Landscape Sensitivity to Reservoirs

5.28 Man-made reservoirs, especially those with engineered steep banks, introduce man-made elements to the landscape and can affect naturalistic and undeveloped qualities of more remote landscapes. It is important to ensure a landscape can accommodate such developments by virtue of its topography, landcover and perceptual character.

5.29 **Figure 5.7** shows the results of the landscape sensitivity assessment for reservoir development of 2-5ha.

5.30 The rural, but man-made arable landscape of much of North Norfolk means that the landscape's sensitivity to reservoirs tends to be moderate. In the Norfolk Coast AONB and Heritage Coast, where the tranquil and undeveloped nature of the landscape is a defined special quality of the landscape, sensitivity is higher. No landscapes in North Norfolk have a 'low' or 'low-moderate' sensitivity to the development of man-made reservoirs. The part of the 'Undeveloped Coast' that falls outside the AONB (i.e. the strip that occurs along the Coastal Plain LCT) has a moderate sensitivity to reservoirs.

5.31 LCTs often contain areas of higher and lower sensitivity within them - it is therefore important to take note the content of the individual LCT evaluations and the generic guidance to minimise harm to the landscape and to achieve good siting and design (see **Appendix 3**).

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 5.1: Sensitivity to large scale wind turbines

The Broads Authority area
AONB
Heritage Coast
Undeveloped Coast Policy Area

Sensitivity rating

High
Moderate - High
Moderate
Moderate - Low
Low

Map Scale @A3: 1:185,000

0 4 8 km

CB:MNi EB:Beetham_m LUC 10274_r1_ooddFIG5-X_Sensitivity_A4LCustom_2 13/08/2020 Source: NNDC, NE, LUC

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 5.2: Sensitivity to medium scale wind turbines

The Broads Authority area
AONB
Heritage Coast
Undeveloped Coast Policy Area

Sensitivity rating

High
Moderate - High
Moderate
Moderate - Low
Low

Map Scale @A3: 1:185,000

0 4 8 km

LUC

NORTH NORFOLK DISTRICT COUNCIL

CB:MNi EB:Beetham_m LUC 10274_r1_ooddFIG5-X_Sensitivity_A4LCustom_2 13/08/2020 Source: NNDC, NE, LUC

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 5.3: Sensitivity to small scale wind turbines

The Broads Authority area
AONB
Heritage Coast
Undeveloped Coast Policy Area

Sensitivity rating

High
Moderate - High
Moderate
Moderate - Low
Low

Map Scale @A3: 1:185,000

0 4 8 km

CB:MNi EB:Beetham_m LUC 10274_r1_ooddFIG5-X_Sensitivity_A4LCustom_2 13/08/2020 Source: NNDC, NE, LUC

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 5.4: Sensitivity to field scale solar PV development

The Broads Authority area
AONB
Heritage Coast
Undeveloped Coast Policy Area

Sensitivity rating

High
Moderate - High
Moderate
Moderate - Low
Low

0 4 8 km

Map Scale @A3: 1:185,000

CB:MNi EB:Beetham_m LUC 10274_r1_ooddFIG5-X_Sensitivity_A4LCustom_2 13/08/2020 Source: NNDC, NE, LUC

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 5.5: Sensitivity to onshore cable routes

The Broads Authority area
AONB
Heritage Coast
Undeveloped Coast Policy Area

Sensitivity rating

High
Moderate - High
Moderate
Moderate - Low
Low

Scolt Head Island
Holkham Bay
Blakeney Point
Peddars Way and Norfolk Coast Path
Norfolk Coast Path (England Coast Path)
SHERINGHAM
West Runton
CROMER
Overstrand
Mundesley
Bacton Green
Bacton
Keswick
Walcott
Ostend
Happisburgh
Eccles on Sea
Sea Palling
Waxham
Burnham Market
Burnham Deepdale
Burnham Norton
Burnham Overy Staithe
Burnham Overy Town
Burnham Thorpe
Holkham
Wighton
North Creake
Stanhoe
Waterden
King's Lynn and West Norfolk District (B)
Syderstone
Bagthorpe
Wicken Green Village
Sculthorpe
FAKENHAM
Tattersett
Shereford
Hempton
West Rudham
East Rudham
Pockthorpe
Harpley
Great Massingham
Weasenham St Peter
Weasenham All Saints
Rougham
Litcham
Mileham
West Lexham
East Lexham
Castle Acre
Newton
Great Dunham
Great Palgrave
Little Dunham
Sporle
Great Fransham
Little Fransham
Wendling
Scarning
Toftwood
Daffy Green
Ivy Todd
Necton
Bradenham
Shipdham
Westfield
Letton Green
Garvestone
Runhall
Barnham Broom
North
DEREHAM
Podmore
Hoe
Woodgate
Gressenhall
Breckland District
Beeston
Bittering
Beetley
Old Beetley
East Bilney
Billingford
Worthing
Swanton Morley
Elsing
Primrose Green
Weston Longville
North Tuddenham
Mattishall Burgh
Mattishall
Clint Green
Yaxham
Whinburgh
Welborne
Colton
Brandon Parva
Westwick
Swanton Novers
Melton Constable
Briston
Saxthorpe
Corpusty
Blickling
Oulton
Oulton Street
AYLSHAM
Heydon
Guestwick
Guestwick Green
Wood Dalling
Salle
Southgate
Foulsham
Themelthorpe
Reepham
Cawston
Booton
Marsham
Brampton
Lamas
Buxton
Coltishall
Stratton Strawless
Hevingham
Haveringland
Waterloo
Horstead
Hainford
Frettenham
Belaugh
Wroxham
Newton St Faith
Due to Open Early 2018
Horsham St Faith
Norwich Airport
Spixworth
Rackheath
Salhouse
Crostwick
Horsford
Felthorpe
Thorpe Marriot
Attlebridge
Alderford
Morton
Swannington
Lenwade
Sparham
Bawdeswell
Foxley
Whitwell Street
The Grove
Fastgate
The Heath
Broadland District
Taverham
Drayton
Hellesdon
Costessey
New Costessey
South Norfolk District
Norwich District (B)
NORWICH
SPROWSTON
Old Catton
Thorpe End
New Rackheath
Great Plumstead
Little Plumstead
Panxworth
Blofield Heath
Hemblington
Cargate Green
Upton
North Burlingham
THE BROADS
Stokesby
Runham
Filby
Mautby
Billockby
Thrigby
Fleggburgh (Burgh St Margaret)
Great Yarmouth Borough
Ormesby St Margaret
Hemsby
Martham
Rollesby
Repps
Bastwick
Ranworth
South Walsham
Clippesby
Great Yarmouth District (B)
Blofield
Brundall
Lingwood
Postwick
Thorpe St Andrew
Lakenham
Eaton
Earlham
Barford
Bowthorpe
Colney
Marlingford
Bawburgh
Little Melton
Irstead
Neatishead
Ashmanhaugh
Scottow
Sco Ruston
Ludham
Hoveton
Wroxham
Catfield
Sutton
Happisburgh
Whimpwell Green
Lessingham
Hempstead
Witton Bridge
Knapton
Paston
Trimingham
Northrepps
Southrepps
Lower Street
Upper Sheringham
Weybourne
Salthouse
Newgate
Morston
Stiffkey
Warham
Cockthorpe
Langham
Blakeney
Glandford
Wiveton
Cley next the Sea
Holt
Bodham
West Beckham
East Beckham
Aylmerton
Roughton
Felbrigg
Metton
Gresham
Sustead
Thurgarton
Aldborough
Aby Hill
Edgefield
Plumstead
Little Barningham
Wolterton Hall
Erpingham
Calthorpe
Aldeby
Witchingham
Bradfield
Swafield
Skeyton
Burgh next Aylsham
Tuttington
Westwick
Honing
Crostwight
Dilham
Smallburgh
Worstead
Sloley
Scottow
Pennygate
Ingham
Sutton
Catfield
Hickling
Horsey
Winterton
Somerton
East Somerton
Martham
Hemsby
Ormesby St Margaret
Scratby
Caister
Great Yarmouth
Gorleston
Southtown
Cobholm
Burgh Castle
Belton
Fritton
Haddiscoe
Toll Gate
Langley
Hardley
Loddon
Chedgrave
Thurton
Claxton
Norton Subcourse
Reedham
Cantley
Limpenhoe
Freethorpe
Halvergate
Tunstall
Acle
Upton
Fleggburgh
Filby
Mautby
Stokesby
Runham
West End
Asle
Billockby
Thrigby
Castle
Caist
Peddars Way and Norfolk Coast Path
Bailey Gate
Castle Acre
Great Yarmouth Borough
Great Yarmouth District (B)
Broadland District
South Norfolk District
Norwich District (B)
North Norfolk District
King's Lynn and West Norfolk District (B)
Breckland District
OCM1
DCM1
DCM2
ROF1
RHA1
RV4
RV5
RV6
RV1
RV2
RV3
WGR1
CS1
TF1
LPF1
CP1
SF1

0 4 8 km

Map Scale @A3: 1:185,000

LUC
NORTH NORFOLK DISTRICT COUNCIL

CB:MNi EB:Beetham_m LUC 10274_r1_ooddFIG5-X_Sensitivity_A4LCustom_2 13/08/2020 Source: NNDC, NE, LUC

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 5.6: Sensitivity to industrial type developments (commercial battery storage, anaerobic digestion plants, cable relay stations and sub-stations for

The Broads Authority area
AONB
Heritage Coast
Undeveloped Coast Policy Area

Sensitivity rating

High
Moderate - High
Moderate
Moderate - Low
Low

Map Scale @A3: 1:185,000

0 4 8 km

CB:MNi EB:Beetham_m LUC 10274_r1_ooddFIG5-X_Sensitivity_A4LCustom_2 13/08/2020 Source: NNDC, NE, LUC

North Norfolk Landscape Character Assessment & Landscape Sensitivity Study

Figure 5.7: Sensitivity to reservoirs

The Broads Authority area
AONB
Heritage Coast
Undeveloped Coast Policy Area

Sensitivity rating

High
Moderate - High
Moderate
Moderate - Low
Low

Scolt Head Island
Holkham Bay
Blakeney Point
Paddars Way and Norfolk Coast Path
Norfolk Coast Path (England Coast Path)
Burnham Market
North Creake
Stanhoe
King's Lynn and West Norfolk District (B)
Waterden
Syderstone
Bagthorpe
Wicken Green Village
Sculthorpe
FAKENHAM
Great Massingham
Litcham
Mileham
Gressenhall Breckland District
DEREHAM
Great Dunham
Great Fransham
Little Dunham
Little Fransham
Necton
Broadland District
Foulsham
Reepham
Guestwick
AYLSHAM
Buxton
Coltishall
Hoveton
SHERINGHAM
West Runton
CROMER
Overstrand
Mundesley
Bacton Green
Bacton
Keswick
Walcott
Ostend
Happisburgh
Whimpwell Green
Eccles on Sea
Sea Palling
Waxham
NORTH WALSHAM
HOLT
Blakeney
Cley next the Sea
Weybourne
Salthouse
Morston
Wighton
Binham
Saxlingham
Letheringsett
Field Dalling
Bale
Hindringham
Thursford
Little Walsingham
Houghton St Giles
Barsham
Swanton Novers
Melton Constable
Edgefield
Plumstead
Hempstead
Baconsthorpe
Bodham
Aylmerton
Roughton
Felbrigg
Cromer
Trimingham
Gunthorpe
Thornage
Sharrington
Stody
Briningham
Hempton
Pudding Norton
Little Ryburgh
Great Ryburgh
Stibbard
Wood Norton
Guestwick Green
Wood Dalling
Salle
Southgate
Themelthorpe
Twyford
Guist
Oxwick
Whissonsett
Horningtoft
Gateley
Wellingham
Tittleshall
Stanfield
Brisley
North Elmham
Foxley
Bintree
Fakenham
Shereford
Tatterford
Toftrees
Pockthorpe
Harpley
West Rudham
East Rudham
Great Massingham
Weasenham St Peter
Weasenham All Saints
Rougham
Old Beetley
East Bilney
Worthing
Billingford
Bawdeswell
Sparham
Lyng
Lenwade
Alderford
Swannington
Morton
Attlebridge
Felthorpe
Hoe
Woodgate
Elsing
Primrose Green
Weston Longville
Swanton Morley
Mill Street
Robertson Barracks
Beeston
Newton
Castle Acre
East Lexham
West Lexham
Litcham
Bittering
Beetley
Gressenhall
Great Palgrave
Podmore
Scarning
Wendling
Toftwood
Daffy Green
Ivy Todd
Yaxham
Whinburgh
Clint Green
Mattishall
Mattishall Burgh
East Tuddenham
North Tuddenham
Hockering
Ringland
Honingham
Easton
Colton
Welborne
Brandon Parva
Marlingford
Bawburgh
Costessey
New Costessey
Taverham
Drayton
Hellesdon
Old Catton
SPROWSTON
NORWICH
THORPE ST ANDREW
Norwich District (B)
South Norfolk District
Bowthorpe
Colney
Earlham
Lakenham
Eaton
Trowse Newton
Barford
Runhall
Garvestone
Barnham Broom
Little Melton
Shipdham
Bradenham
Westfield
Letton Green
Blofield
Brundall
Lingwood
Great Plumstead
Little Plumstead
Panxworth
Blofield Heath
Hemblington
Cargate Green
Upton
Billockby
Thrigby
Filby
Mautby
Stokesby
Runham
West End
Asle
THE BROADS
Great Yarmouth District (B)
Michael
Martham
Hemsby
Ormesby St Margaret
Fleggburgh (Burgh St Margaret)
Rollesby
Repps
Bastwick
Ranworth
South Walsham
Clippesby
Salhouse
Spixworth
Rackheath
New Rackheath
Thorpe End
Norwich Airport
Due to Open Early 2018
Horsham St Faith
Crostwick
Wroxham
Hoveton
Horning
Ludham
Catfield
Hickling
Sutton
Stalham
Ingham
Lessingham
Hempstead
Happisburgh Common
Whimpwell Green
Scottow
Sco Ruston
Lamas
Brampton
Marsham
Hevingham
Stratton Strawless
Haveringland
Waterloo
Horstead
Hainford
Frettenham
Belaugh
Newton St Faith
Horsford
Thorpe Marriot
Weston Green
Ringland
Drayton
Costessey
Honingham
Easton
Colton
Marlingford
Bawburgh
Barford
Runhall
Garvestone
Barnham Broom
Little Melton
Shipdham
Bradenham
Westfield
Letton Green
Blofield
Brundall
Lingwood
Great Plumstead
Little Plumstead
Panxworth
Blofield Heath
Hemblington
Cargate Green
Upton
Billockby
Thrigby
Filby
Mautby
Stokesby
Runham
West End
Asle
THE BROADS
Great Yarmouth District (B)
Martham
Hemsby
Ormesby St Margaret
Fleggburgh (Burgh St Margaret)
Rollesby
Repps
Bastwick
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South Walsham
Clippesby
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Spixworth
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New Rackheath
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Horsham St Faith
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Lessingham
Hempstead
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Scottow
Sco Ruston
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Brampton
Marsham
Hevingham
Stratton Strawless
Haveringland
Waterloo
Horstead
Hainford
Frettenham
Belaugh
Newton St Faith
Horsford
Thorpe Marriot
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Ringland
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Honingham
Easton
Colton
Marlingford
Bawburgh
Barford
Runhall
Garvestone
Barnham Broom
Little Melton
Shipdham
Bradenham
Westfield
Letton Green

ROF1
DCM1
OCM1
DCM2
RHA1
RV4
RV5
RV6
RV1
RV2
RV3
TF1
LPF1
CP1
SF1
CS1
WGR1

0 4 8 km

Map Scale @A3: 1:185,000

NORTH NORFOLK DISTRICT COUNCIL

CB:MNi EB:Beetham_m LUC 10274_r1_ooddFIG5-X_Sensitivity_A4LCustom_2 13/08/2020 Source: NNDC, NE, LUC

Summary of Landscape Sensitivity across Airfields

Table 5.2: Sensitivity ratings for typical scales of renewable energy development by airfield

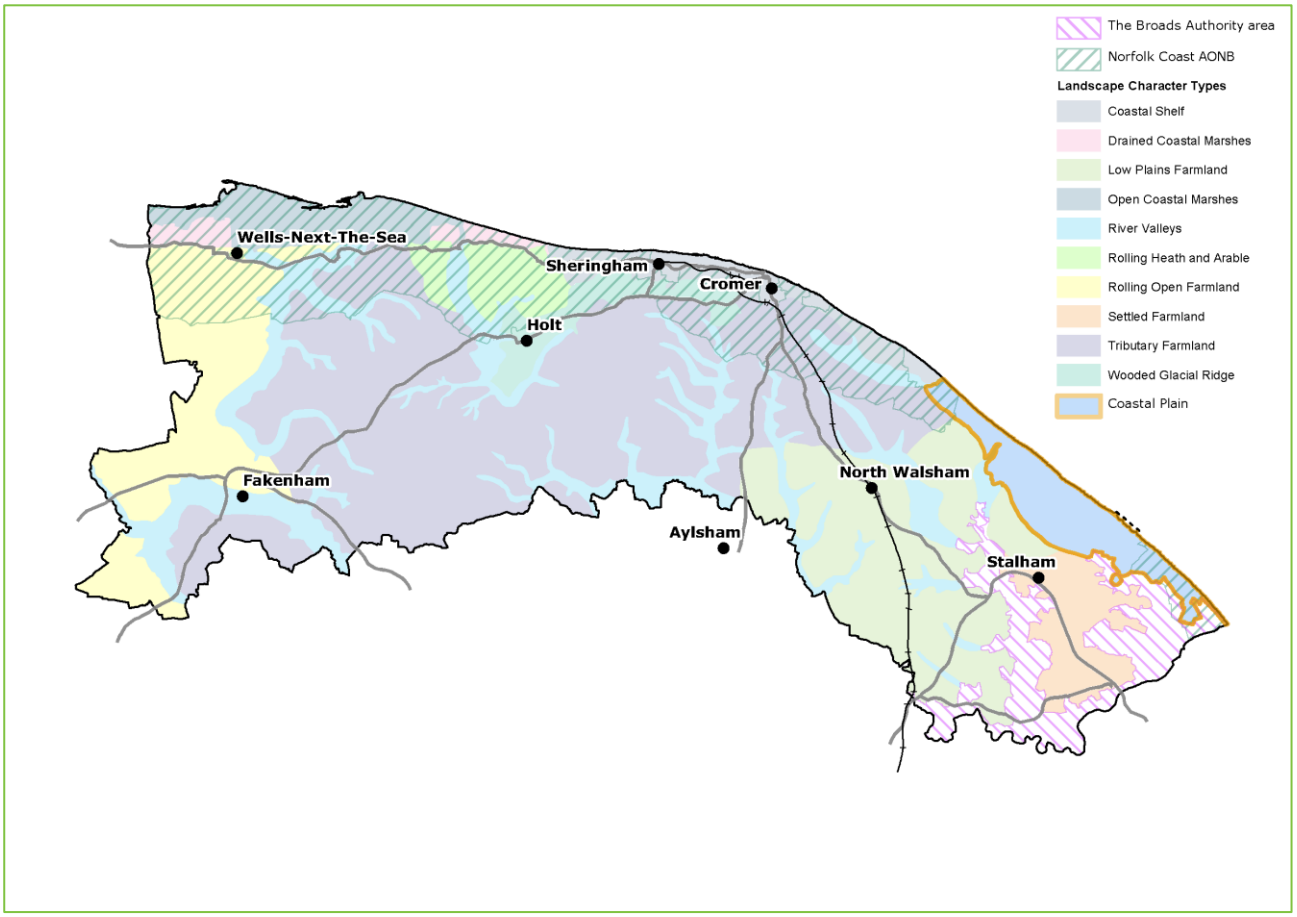
Airfield (LCT)	Large scale wind	Medium scale wind	Small scale wind	Solar PV	Onshore cable routes	Industrial type dev	Reservoir
Coltishall (LPF)	MH	MH	M	LM	LM	LM	LM
Langham (TF)	H	H	MH	M	M	MH	M
Little Snoring (TF)	MH	M	LM	M	LM	M	M
North Creake (ROF)	H	H	MH	LM	LM	M	M
Sculthorpe (ROF)	MH	M	LM	L	L	L	L
West Raynham (ROF)	MH	M	LM	L	L	L	LM

5.32 Many of the District's airfields are former RAF World War 2 airfields which became operational as a base for aircraft from various RAF squadrons. Of the six airfields assessed in this report, only Little Snoring remains in regular use, for civil aviation, although much of the original airfield has since been ploughed for arable farming. Part of the Sculthorpe site remains in MOD use, for training purposes, but it is not frequently used by aircraft. Three of the airfields, Sculthorpe, West Raynham and Coltishall, have seen conversion of technical/military buildings to commercial uses and refurbishment of accommodation for residential use (and also, at Coltishall, a prison). These residential areas are excluded from the assessed site areas. At three airfields, West Raynham, Coltishall and North Creake, large scale solar farms are operational.

5.33 Airfield sensitivity is typically lower than sensitivity of the Landscape Type in which each site is located, although there is generally less difference in relation to wind turbines, which have a greater impact on surrounding landscapes than the lower height development types. In one case, North Creake, the location of the airfield close to the AONB edge means that sensitivity to medium and small scale turbines is actually greater than is typically the case for the LCT outside of the AONB. The lowest sensitivity applies to sites which have the most built development, and in several cases also extensive solar PV development, and which lack a significant relationship with areas designated for their landscape value (the AONB and The Broads). At Coltishall there has been significant development but sensitivity is higher than it would otherwise be because of its cultural heritage interest, reflected in its designation as a Conservation Area.

Appendix 1 – Landscape Sensitivity Assessment Profiles by Landscape Type

Coastal Plain



Coastal Plain

Baseline Landscape

Introduction to the Landscape Character Type

The Coastal Plain Type is characterised by a flat or nearly flat open coastal landscape of predominantly Grade 1 arable farmland with some more naturalistic habitats, especially in the south towards the Broads and along the dynamic coastal margin.

The southern part of the Type borders the Broads (Broads Authority Executive Area), and the Norfolk Coast AONB overlaps with the Type at its northern and southern ends. The majority of the LCT is also within North Norfolk's Undeveloped Coast policy area.

Component Character Areas

There is one continuous area of Coastal Plain in North Norfolk:

CP1 – Bacton to Waxham Coastal Plain

Key Characteristics[11]

- Flat or very flat terrain, with some minor but noticeable undulations
- An eroding coastal edge comprising low cliffs along the northern stretch, including the nationally significant Mundesley Cliffs SSSI and coastal dunes to the south, both of which are Priority Habitats
- A rural landscape in which arable land use predominates with small pockets of pasture around settlement and some farmsteads
- A very open, large-scale and windswept landscape with large fields bounded by ditches and/or banks, often without a hedge
- Low level of woodland cover throughout the Type
- Settlement comprises dispersed rural villages, farmsteads and coastal holiday development
- Substantial industrial development at Bacton Gas Terminals
- A network of minor rural roads feeding off the B1159
- A higher than average number of public rights of way
- A remote southern area situated between coastal dunes and the Broads
- Long views along the coast, and church towers as landmark features

Valued features and qualities

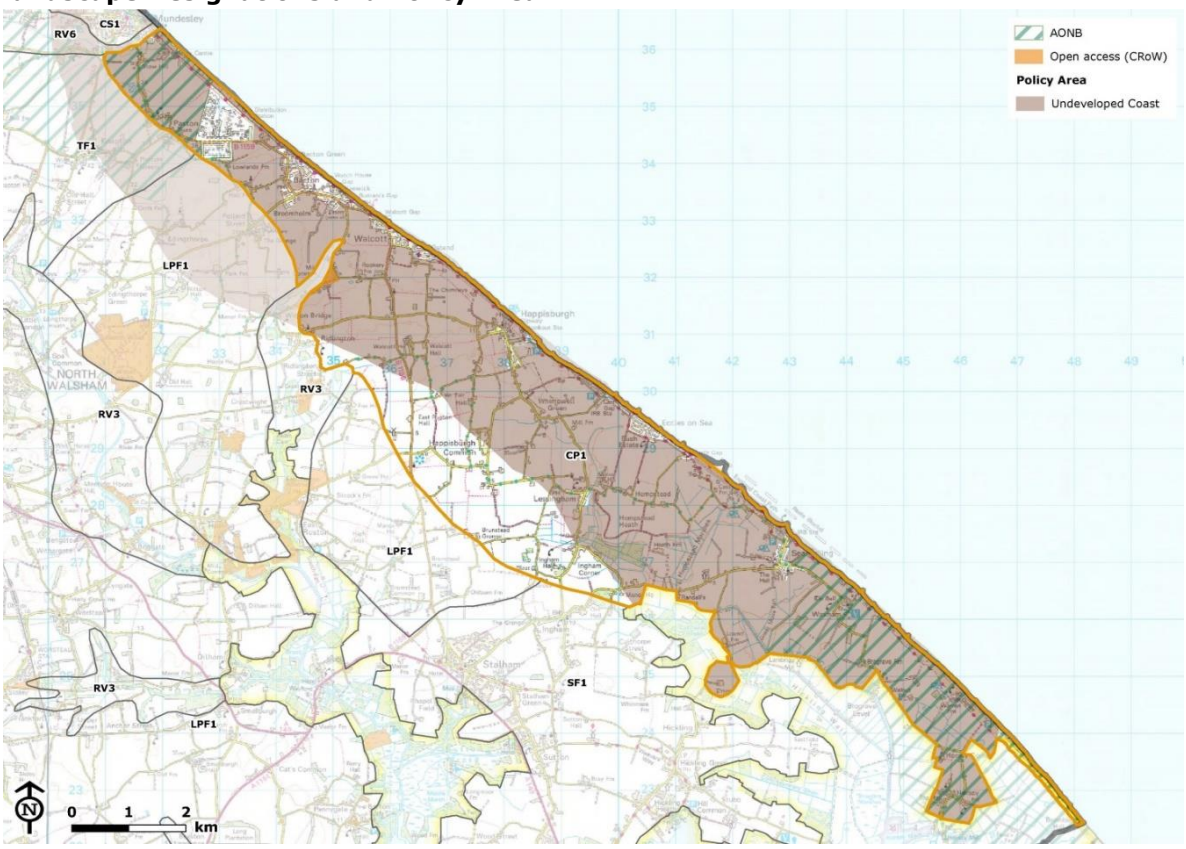
- The strong sense of remoteness, tranquillity and wildness including dark skies in undisturbed areas
- Highly productive farmland
- Remnant semi-natural habitats
- Historic villages, farmsteads and barns
- 20th century wooden bungalows, chalets and wartime defensive structures
- Rural lanes and footpaths
- Long views punctuated by distinctive skyline features including numerous church towers

[11] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Assessment (2018)

Coastal Plain

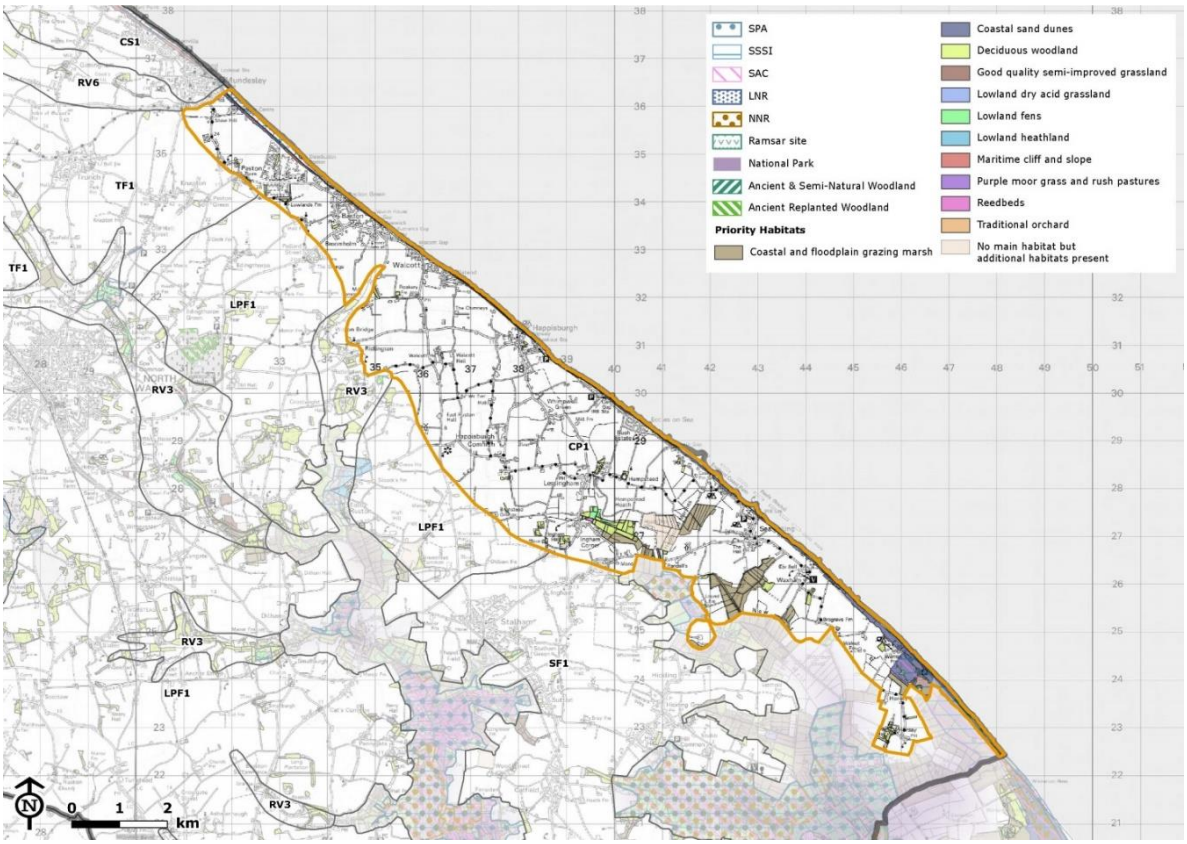
Location of CP1

Landscape Designations and Policy Area

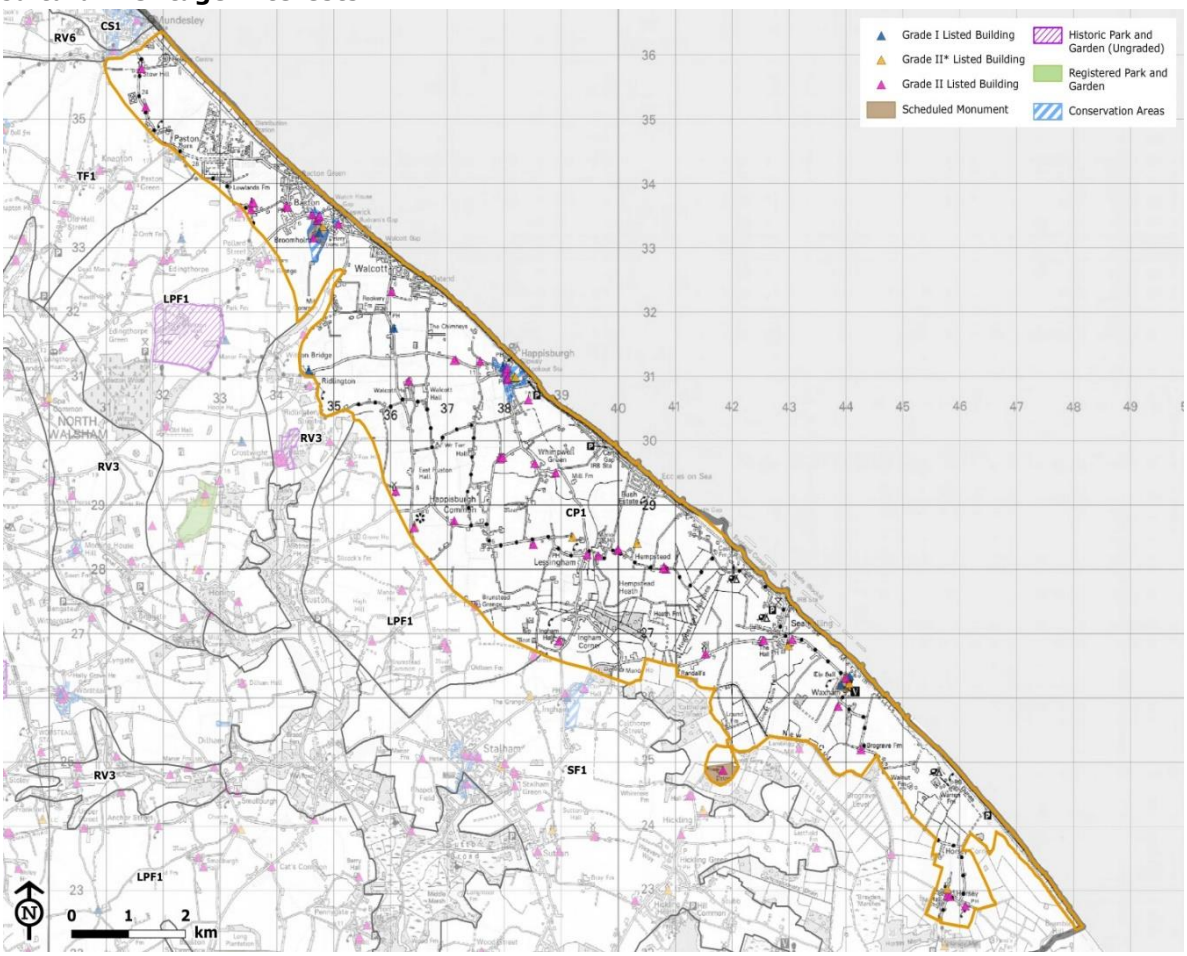


Coastal Plain

Nature Conservation Interests



Cultural Heritage Interests



Coastal Plain

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Coastal Plain LCT against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Uniformly flat or very flat landform, with some noticeable minor rises (up to 10m AOD), which are typically the site of villages, churches and farmsteads. Generally undeveloped skylines occasionally punctuated by historic landmark features, notably church towers. The major exception to the undeveloped skylines is the Bacton Gas Terminals site, which includes tall telecom masts which are dominant features in views over a wide area. The flat landform reduces sensitivity to wind turbines, field-scale solar PV development and onshore cable routes, whilst increasing sensitivity to reservoirs as embankments are less easily integrated into a flat landscape. However, in the case of taller structures such as turbines this is counterbalanced by the generally undeveloped skylines with church towers as landmark features, which increases sensitivity.	–	–	–	↓	↓	–	–	–	↑
Landcover	Predominantly arable farmland with limited pasture associated with settlement or along the coastal edge, and low woodland cover throughout the Type. Two distinct areas of more naturalistic landcover exist in the southern part of CP1: An inland area around the Broads fringes, including coastal and floodplain grazing marsh, carr woodland, lowland fens and reedbeds; and a long, narrow strip of coastal sand dunes, with some adjacent grazing marsh, approximately	–	–	–	–	↓	–	–	–	–

Coastal Plain

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	between Eccles-on-Sea and Horsey. The dominant arable landcover lies in the middle of the sensitivity spectrum for the majority of development types, except for onshore cable routes where sensitivity is reduced as this type of landcover is able to recover from the temporary laying phase. Localised areas of more naturalistic landcover will have higher sensitivity to all development types.									
Sense of openness/ enclosure	A very open and windswept landscape with large fields bounded by ditches and/or banks, often without a hedge resulting in a strong sense of openness and lack of visual screening/containment, which increases sensitivity to any new development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern & complexity	Field pattern is predominantly geometric and field size varies from large to medium, with some small pasture fields near cottages and the older settlements. The combination of very flat landform, regular arable farmland and low banks or ditches tends to increase the apparent scale and expanse of the landscape. However, the presence of vernacular villages, coastal holiday homes, narrow rural lanes, windmills and frequent farmsteads also introduces human-scale features which increase sensitivity to larger scale developments such as the larger wind energy developments or larger solar farms and reservoirs. Overall, these scale factors balance each other out for the larger scale developments (larger wind turbines, solar farms and reservoirs). The varied scale of the landscape does not influence sensitivity one way or the other for the other developments such as smaller	–	–	–	–	×	–	–	–	–

Coastal Plain

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	scale turbines and cable relay stations, battery storage or AD plants.									
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	There are some strong variations in these attributes between the more developed parts of the coast (e.g. the wider area around Bacton), which have a busier, less tranquil character and large scale infrastructure, and the more remote southern part of the area, together with large areas of quiet inland farmland. The undeveloped southern coastline which is within the AONB also has a greater sense of wildness. Overall, the undeveloped character, relative sense of tranquillity, remoteness and traditional rurality which prevails in the majority of the area (also recognised by the presence of the Undeveloped Coast policy area) results in increased sensitivity to all forms of development under consideration.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	Historic landscape types within the LCT are dominated by 20th century agricultural enclosures, which have little time depth. Other types present include smaller areas of 17th – 20th century rectilinear grazing marsh, in the parts bordering the Broads, and unimproved freshwater fen adjacent to the coastal dunes around Horsey, which will have a greater time depth and historical continuity. Overall, the predominant modern agricultural farmland throughout the area decreases sensitivity to all forms of development under consideration.	↓	↓	↓	↓	↓	↓	↓	↓	↓

Coastal Plain

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	Two discrete areas of the Type fall within the Norfolk Coast AONB: The far northern end of the Type (Mundesley to Bacton Gasworks) and the far southern part from Sea Palling to the District boundary south of Horsey. The southern part of the Type also borders the Broads (Broads Authority Executive Area). Any of the types of development under consideration in this study have the potential to affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), important coastal habitats and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or affecting these areas.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The landscape outside the AONB displays a generally moderate scenic quality by virtue of the combination of scenic stretches of coastline, historic vernacular settlements and the sense of traditional rurality inland, which is counterbalanced by the large-scale, flat and regular arable farmland with limited hedgerows and woodland, and the presence of 20th century coastal ribbon development and the dominant industry at Bacton Gas Terminals. <u>Representativeness:</u> The majority of the LCT is relatively typical arable farmland, although the extensive stretch of coastal sand dunes is a particularly important example which	–	–	–	–	–	–	–	–	–

Coastal Plain

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	increases sensitivity in that localised area. Rarity: There are few rare landscape types present (e.g. coastal dunes, grazing marsh and freshwater fen) and therefore these could be avoided. Intactness: Intactness of the landscape has been adversely affected by 20th century intensive agriculture and associated hedgerow removals, coupled with areas where hedgerows have not been maintained, which reduces sensitivity. Nature conservation & cultural heritage interests: Heritage assets are infrequent throughout this landscape, but do include some notable buildings, such as the Waxham and Paston Great Barns, churches, windmills, farmhouses and several Conservation Areas (Happisburgh, Bacton) and Scheduled Monuments. Sensitivity will be increased in proximity to these features. The majority of the LCT is not subject to any nature conservation designations; however, there is a concentration in the far south of the area, comprising the Winterton-Horsey Dunes SAC and SSSI, and the Great Yarmouth North Denes SPA. There is also a small, discrete SAC at Paston Great Barn, designated for its important bat population, and two SSSIs relating to the cliffs at Mundesley and Happisburgh. Therefore, the presence of nature conservation designations does not strongly influence sensitivity in either direction across the majority of the LCT, except in proximity to those areas/sites noted above.									

Coastal Plain

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	<u>Recreational value:</u> The LCT is served by a higher than average number of PRoWs, comprising a network of linked footpaths and bridleways including the Norfolk Coast Path, making the area particularly accessible. Small, isolated areas of Open Access Land (commons) are scattered across the LCT, and several recreational routes and other PRoWs cross the LCT, including a very short section of the Norfolk Coast Path where the LCT meets the coast around Morston, but recreational use tends to be more focussed in the adjacent coastal LCTs. <u>Literary / artistic associations:</u> There are no known famous literary/artistic associations for the Coastal Plain landscape.	↑	↑	↑	↑	↑	↑	↑	↑	↑
		–	–	–	–	–	–	–	–	–

Coastal Plain

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	AONB	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	**OUT**	Although the flat landform, typically large landscape scale and regular landscape pattern of arable fields might reduce sensitivity to large scale wind turbines in some situations, in this case the very open, exposed and predominantly tranquil rural character, frequent human-scale elements and generally undeveloped skylines punctuated by occasional historic landmark features all increase sensitivity, and would result in large scale turbines forming prominent skyline features across extensive parts of the District and along the coastline, including potentially within the AONB and the Broads. Overall, typical sensitivity to this scale of turbine is considered to be **high**. In addition, the Conservation Areas of Happisburgh and Bacton, and other isolated listed buildings and Scheduled Monuments also have cultural heritage sensitivities associated with them. Separate ecological sensitivities also exist in relation to the designated sites (SAC, SPA & SSSI).	**High**
	IN	In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats. These nationally valued landscape qualities ensure the highest level of sensitivity in relation to large scale wind turbines.	**High**
Medium scale wind turbines, (up to 60m hub height)	**OUT**	Although the flat landform, typically large landscape scale and regular landscape pattern of arable fields might reduce sensitivity to medium scale wind turbines in some situations, in this case the very open, exposed and predominantly tranquil rural character, frequent human-scale elements and generally undeveloped skylines punctuated by occasional historic landmark features all increase sensitivity so that overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats. These nationally valued landscape qualities ensure the highest level of sensitivity in relation to medium scale wind turbines.	**High**
Small scale wind turbines, (up to 30m hub height)	**OUT**	Although the flat landform, typically large landscape scale and regular landscape pattern of arable fields reduces sensitivity to small scale wind turbines, this is counterbalanced by the very open, exposed and predominantly tranquil rural character, frequent human-scale elements and generally undeveloped skylines punctuated by occasional historic landmark features, which all increase sensitivity. Small scale wind turbines would be less prominent/dominant skyline features than the larger scale turbines, and also less extensively visible as components of the skyline across the LCT, and possibly beyond. Overall, typical sensitivity to this scale of turbine is considered to be **moderate**. Localised areas of higher sensitivity exist in proximity to the AONB and the Broads, where this scale of turbine would be visible on the skyline and may adversely affect the special qualities of these designations (see below), and in proximity to cultural heritage assets such as Conservation Areas and listed buildings and where turbines may compete with landmark church towers for prominence.	**Moderate**

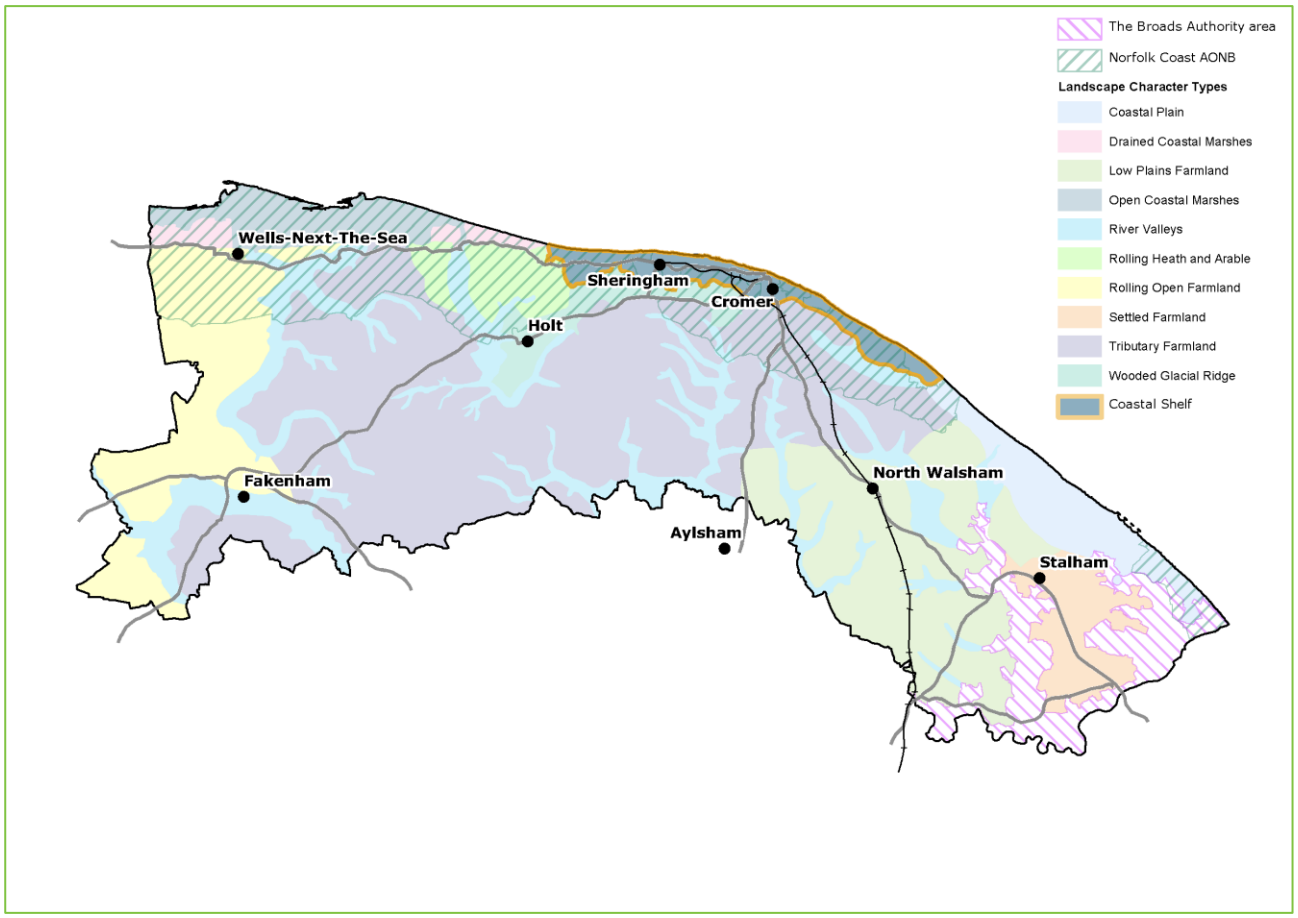
Coastal Plain

	IN	In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats. These nationally valued landscape qualities increase sensitivity to even small scale wind turbines, resulting in a **high** sensitivity to this scale of turbine.	**High**
Field-scale solar PV development (above 10 hectares site area)	**OUT**	The flat landform, relatively large landscape scale and typically regular landscape pattern of arable fields all reduce sensitivity to field-scale solar PV development. However, the sensitivity is increased by the open, exposed and strongly rural character, with limited screening potential due to the low presence of hedgerows and woodland cover. Overall, typical sensitivity to this type of development is considered to be **moderate** and any development would need to be sited with care. Localised areas of lower sensitivity exist in proximity to woodland blocks and within hedged fields, where higher vegetation would afford greater screening of solar panels.	**Moderate**
	IN	In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats such as coastal dunes and fen. In this context, the presence of field-scale solar PV development, with its perceived industrial/urban appearance, would generally be at odds with the nationally valued undeveloped and naturalistic qualities of the AONB, increasing sensitivity to this form of development.	**High**
Onshore cable routes for offshore wind farms (30m-80m clearance)	**OUT**	Whilst the flat landform, relatively large landscape scale, regular landscape pattern, predominant landcover of arable fields and limited time depth all reduce sensitivity to onshore cable routes, this is counterbalanced to an extent by the open, exposed and strongly rural character of the area, and its generally high recreational value. Nevertheless, typical sensitivity to this type of development is considered to be **low-moderate**, subject to careful routeing to avoid the more sensitive areas. Localised areas of higher sensitivity relate to those in proximity to the AONB and the Broadswhere the strong sense of remoteness and tranquillity could be adversely affected, and in proximity to nature conservation and cultural heritage assets.	**Low-Moderate**
	IN	In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats such as coastal dunes and fen. Cable laying could affect the undeveloped coastal character, sense of remoteness and tranquillity, and recreational value, for a temporary period, and could result in longer term impacts on naturalistic habitats (which also have a stronger time depth than the surrounding modern farmland), if not carefully routed / constructed. Therefore, typical sensitivity to underground cables is considered to be **moderate-high** in the areas of CP that fall within the AONB.	**Moderate-High**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	**OUT**	The criteria appraisal above indicates that the majority of the landscape attributes in this area do not strongly influence sensitivity in either direction in relation to industrial type developments. The exceptions to this are the open, exposed and rural/tranquil character and typically high recreational value, which increase sensitivity; and the general lack of time depth and limited intactness of the modern arable farmland, which reduce sensitivity. Overall, typical sensitivity to industrial type developments is considered to be **moderate**. Localised areas of lower sensitivity exist in proximity to woodland blocks, within hedged fields and larger farm complexes with existing modern built form, where higher vegetation (which could be allowed to grow taller) and development would afford greater screening of the lower elements of industrial type developments. Localised areas of higher sensitivity exist in proximity to the AONB and the Broads, where such development would be visible on the skyline and may adversely affect their special qualities of natural beauty (see below), in proximity to cultural heritage assets such as Conservation Areas and listed buildings, and where they may be seen in combination with landmark church towers.	**Moderate**

Coastal Plain

	IN	In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats such as coastal dunes and fen. In this context, the presence of industrial type developments would generally be at odds with the nationally valued undeveloped and naturalistic qualities of the AONB, increasing sensitivity to this form of development.	**High**
Reservoirs (typical size range 2 – 5ha)	**OUT**	The criteria appraisal above indicates that the majority of the landscape attributes in this area do not strongly influence sensitivity in either direction in relation to reservoirs. The exceptions to this are the flat landform, open, exposed and rural/tranquil character and typically high recreational value, which increase sensitivity; and the general lack of time depth and limited intactness of the modern arable farmland, which reduce sensitivity. Overall, typical sensitivity to reservoirs is considered to be **moderate**. Localised areas of lower sensitivity may exist in proximity to slight undulations and variations in landform, woodland blocks, within hedged fields and larger farm complexes with existing modern built form, where higher vegetation (which could be allowed to grow taller) and development would afford greater screening / better integration of reservoir embankments. Localised areas of higher sensitivity exist in proximity to the AONB and the Broads, where the presence of reservoirs visible from within these designated areas may adversely affect their special qualities of natural beauty (see below). Separate cultural heritage sensitivities also exist in proximity to designated Conservation Areas and listed buildings.	**Moderate**
	IN	In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats such as coastal dunes and fen. In this context, the presence of reservoirs would generally be at odds with the nationally valued undeveloped and naturalistic qualities of the AONB, particularly where loss of or adverse impacts on natural habitats / landcover would occur, increasing sensitivity to this form of development.	**Moderate-High**

Coastal Shelf



Coastal Shelf

Baseline Landscape

Introduction to the Landscape Character Type

The Coastal Shelf type is characterised by the coastal strip of land, around 12 miles in length yet only 1 mile deep, which incorporates some of the District's principal settlements, sandwiched between the Cromer Ridge and the sea. Settlement is nestled within pockets of arable farmland and woodland, some of which are surprisingly rural and unspoilt. The presence of the historic holiday towns of Sheringham and Cromer, combined with the sandy beaches and frequent cliffs along the coast, creates a strong focus for tourism.

The more undeveloped parts of the Coastal Shelf type lie within the North Norfolk Coast AONB, whilst the main settlements (Sheringham, Cromer, Overstrand and Mundesley) are excluded from this designation. Similarly, North Norfolk's Undeveloped Coast policy area applies to the type, excluding the built-up areas. The western edge of the type is adjacent to, but outside, the North Norfolk Heritage Coast.

Component Character Areas

There is a single continuous area of Coastal Shelf in North Norfolk:

CS1 – Weybourne to Mundesley Coastal Shelf

Key Characteristics[12]

- Dramatic and distinctive topography
- An eroding coastline
- Tourism and leisure-related settlement and land use along the coast
- Differing settlement character of Cromer and Sheringham
- Open farmland and semi-natural habitats provide important biodiversity and visual separation between settlements
- More open character at the eastern end of the Coastal Shelf
- Less developed character at the western end of the Coastal Shelf
- Busy road network
- Trimingham Radome
- Panoramic views of the coast and Wooded Glacial Ridge

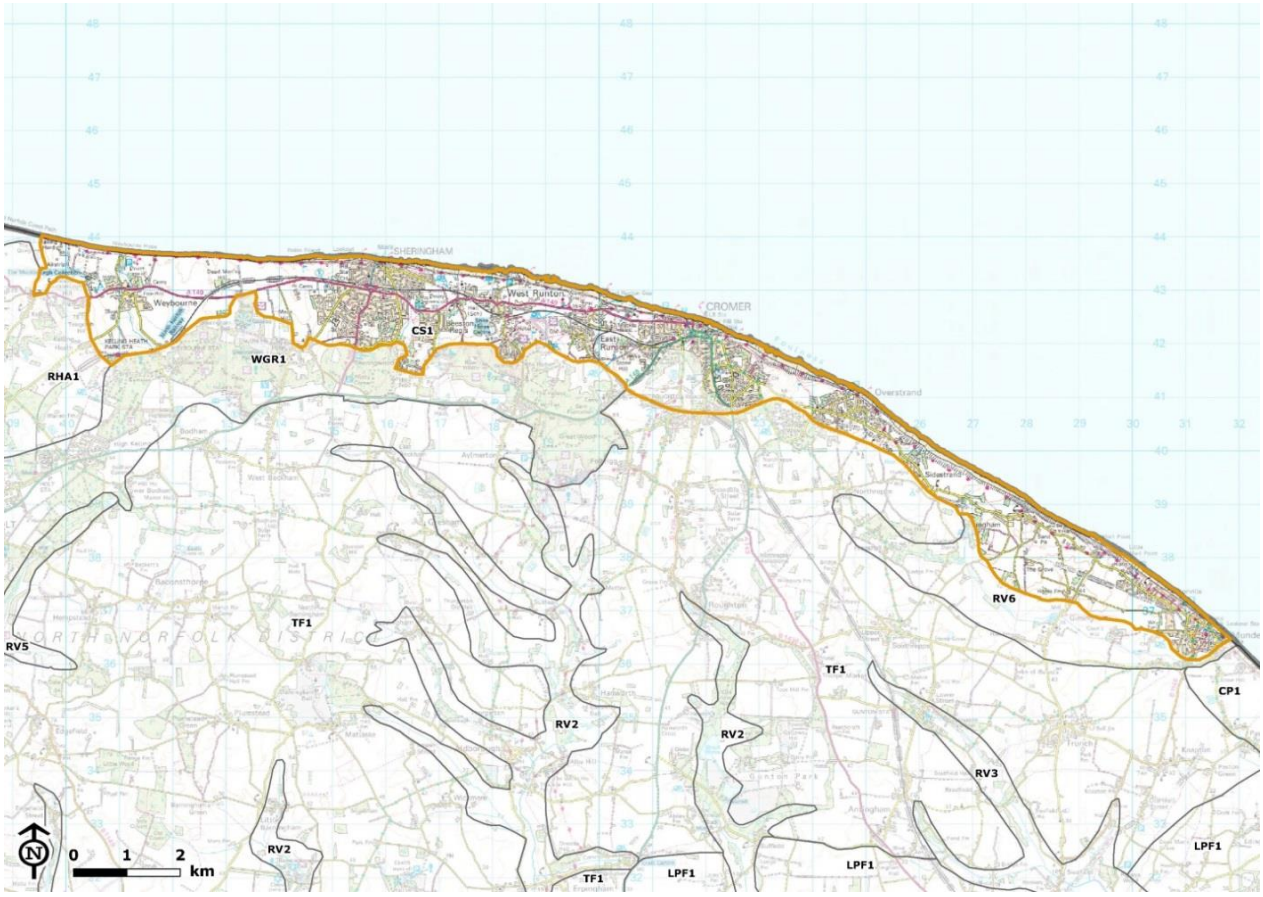
Valued features and qualities

- Coastal character
- The separate identity of coastal settlements
- Distinctive skyline features
- Unspoilt, traditional character between Kelling Heath and Sheringham
- Recreational opportunities

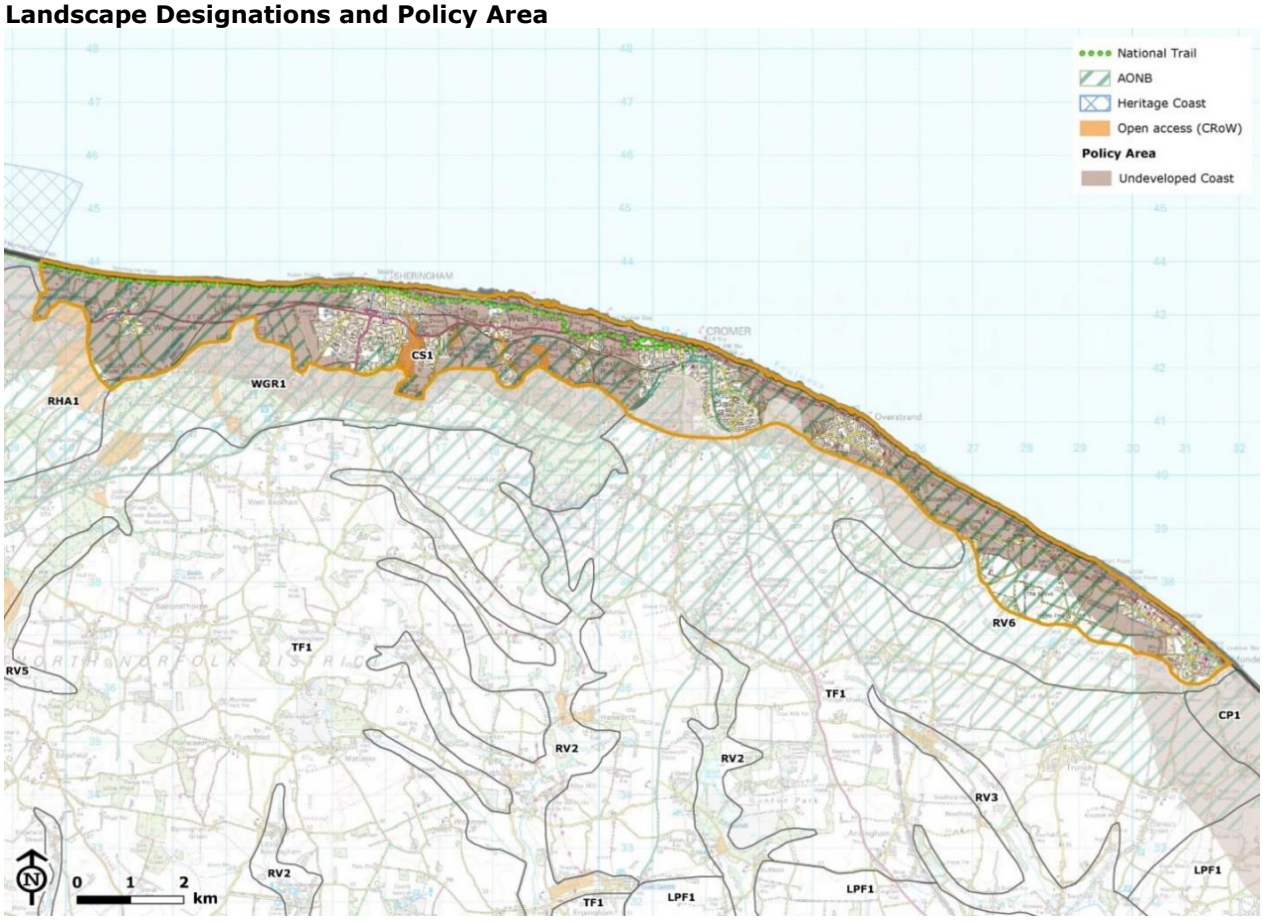
[12] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Assessment (2018)

Coastal Shelf

Location of CS1

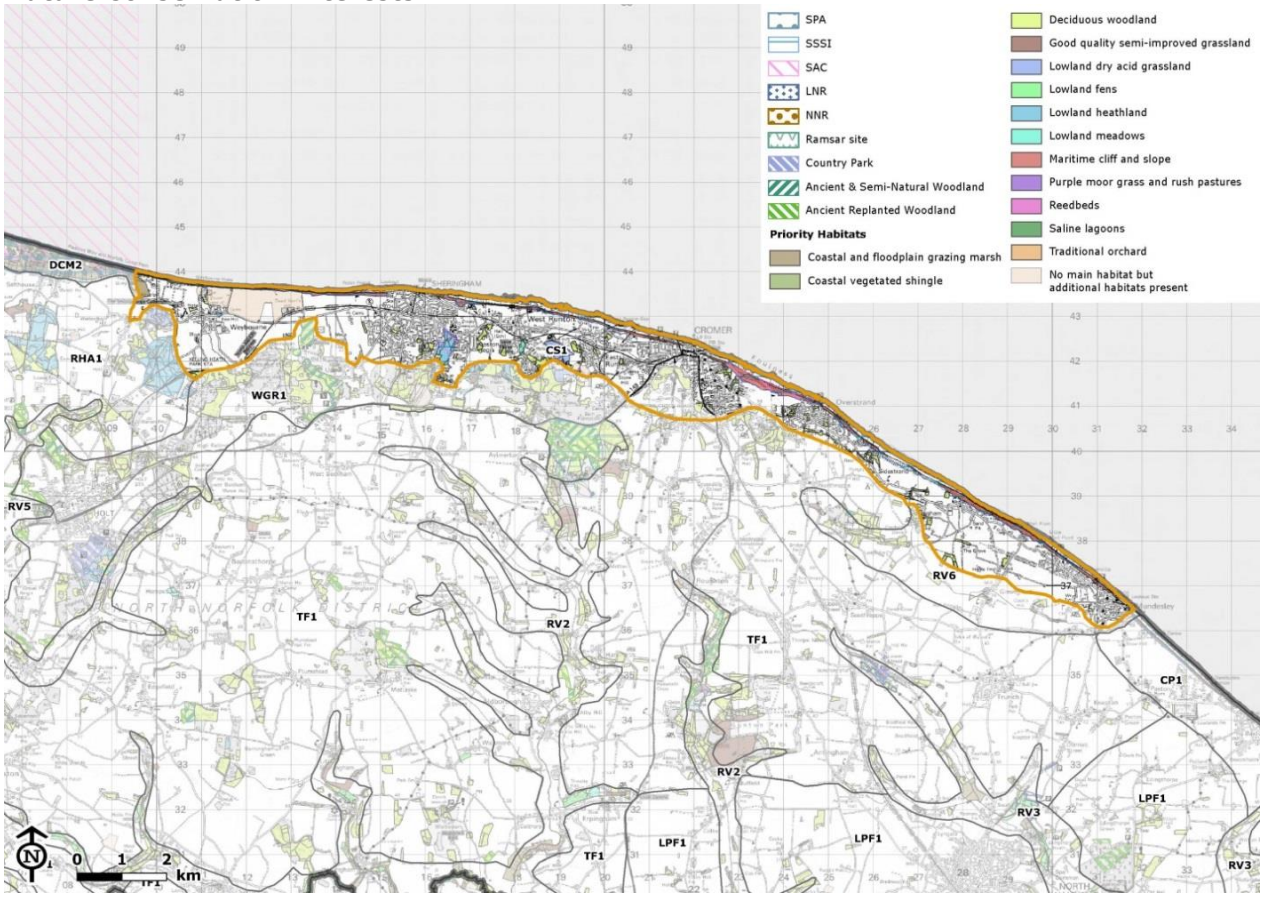


Landscape Designations and Policy Area

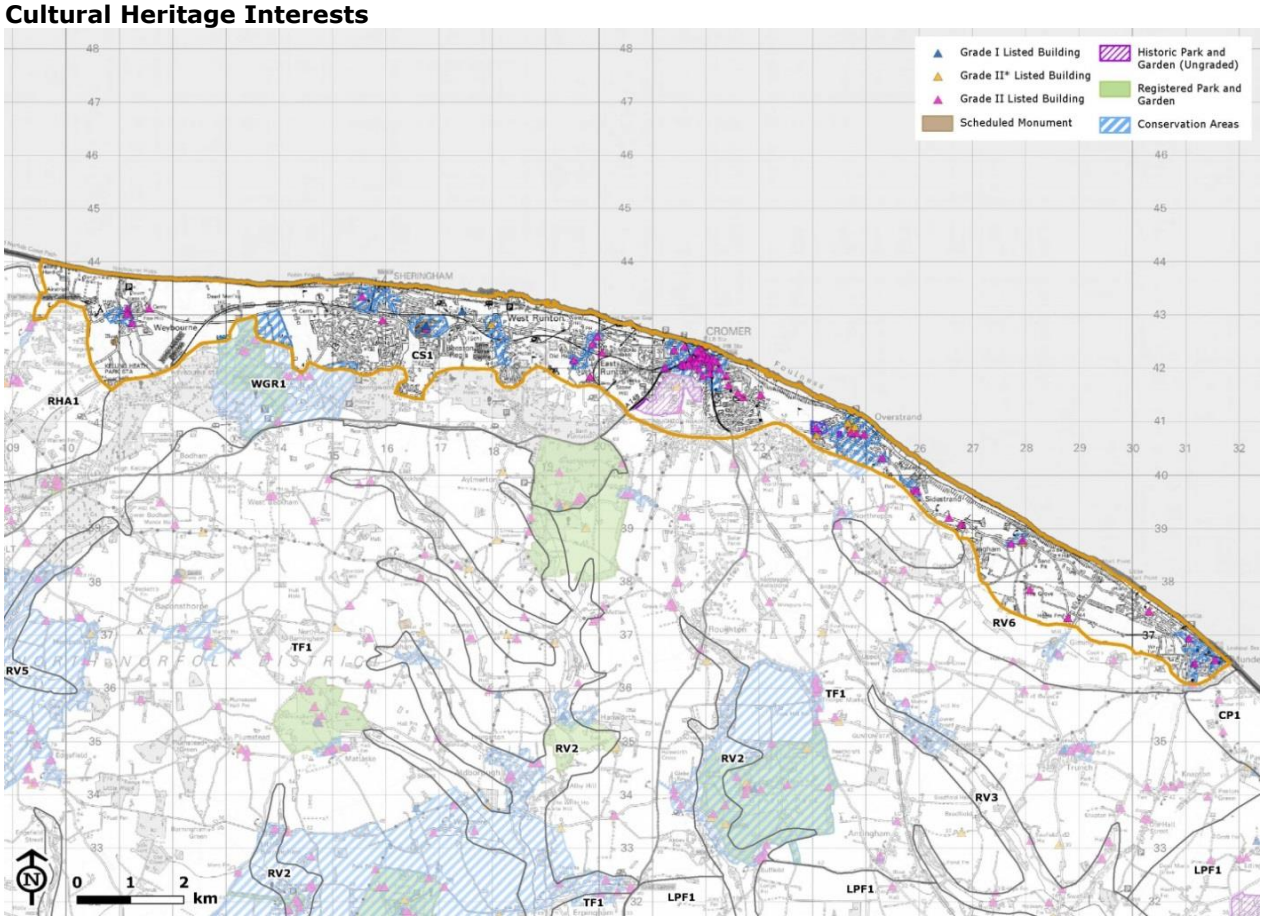


Coastal Shelf

Nature Conservation Interests



Cultural Heritage Interests



Coastal Shelf

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Coastal Shelf LCT against the sensitivity criteria which have been predetermined for the development types under consideration.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	The general topography is highly irregular and undulating, resulting in intimate areas often screened from one another by fingers of higher land, formed of superficial glacial deposits, reaching towards the coast. Inland, the landform often rises sharply towards the scarp slope of the Cromer Ridge, whereas there are discrete areas of relatively flatter (but not flat) land alongside the coast, in between the isolated coastal hills and 'bumps'. Despite the concentration of settlement, skylines throughout the LCT are generally undeveloped, formed by the wooded backdrop of the Cromer Ridge, which encloses views inland, and the sea on the horizon in views towards the coast. There are many historic landmark features which punctuate the skyline, including numerous prominent church towers, such as those at Cromer, Weybourne and Beeston Regis, the Weybourne windmill and the Cromer lighthouse. Modern development is almost entirely low-rise and/or not prominent on the skyline; the main exceptions being one telecoms mast, which is prominent on the wooded ridge above West Runton, and the Trimingham Dome. The irregular and diverse landform, which includes distinct features such as the Cromer Ridge, and some pronounced slopes, together with the prominent,	↑	↑	↑	↑	↑	↑	↑	↑	↓

Coastal Shelf

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	generally undeveloped skylines increase sensitivity to wind turbines, field-scale solar PV development, onshore cable routes and the taller elements of industrial type developments. The landform provides more opportunities to naturally integrate reservoirs and associated embankments, which do not generally impact on skylines, therefore sensitivity to reservoirs is lowered.									
Landcover	Landcover is varied, comprising arable farmland (predominant at the western and eastern ends of the LCT), built-up areas/brownfield land, golf courses and holiday/caravan parks, pasture, paddocks for horse keeping, and more naturalistic areas such as the extensive beaches and cliffs, woodland and commons containing semi-natural lowland heath, dry acid grassland and fen habitats (e.g. Beeston, East and West Runton Commons); some of which exist as complex habitat mosaics. Outside the built-up areas, arable farmland forms the predominant, typical landcover and does not strongly influence sensitivity in either direction, except for onshore cable routes, as this is able to recover more easily from the temporary cable laying phase. In principle, the existing built-up areas containing buildings and hard surfaces have a lower sensitivity in landscape character terms to all forms of development under consideration (consideration of residential amenity is specifically excluded from the scope of this study). Areas of semi-natural habitats would result in a localised higher sensitivity to all forms of development.	–	–	–	–	↓	–	–	–	–

Coastal Shelf

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of openness/ enclosure	In general, the coastal areas have an open, exposed character, with limited sense of enclosure. More inland areas closer to the ridge experience stronger enclosure, due to greater undulation and variation in landform/landcover, from the wooded ridge itself and from the more frequent woodland copses and higher hedgerows which occur on or around the lower slopes of the ridge. The typically open, exposed parts of the LCT have a higher sensitivity to all forms of development as this provides fewer opportunities to screen or visually absorb such development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern & complexity	Fields exhibit significant variation in size and form, with the western and eastern edges of the LCT typically containing larger arable fields (of regular and irregular form), and the central areas containing a more complex mosaic of smaller arable and pasture fields, higher hedgerows and areas of woodland, heathland and grassland, often in combination with the edges of built-up areas, housing and leisure uses such as golf courses and caravan parks. Overall, this results in a typically small to medium scale, varied and intimate landscape character, which increases sensitivity to larger scale developments such as larger wind turbines, solar farms and reservoirs. This landscape scale has a lesser influence on sensitivity to the other developments such as smaller scale turbines and cable relay stations, battery storage or AD plants.	↑	↑	–	↑	×	–	–	–	↑

Coastal Shelf

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of tranquillity/ remoteness/ rurality & level of human influence	The presence of many settlements, including two towns, and a relatively busy road network, means that levels of tranquillity, remoteness and rurality within the LCT are typically lower than other parts of the District, which lowers sensitivity to all forms of development under consideration. However, many small areas of relative rurality and tranquillity co-exist amongst the busier parts of the LCT, particularly in the western end of the LCT beyond Sheringham, and on the lower slopes of the wooded ridge. These qualities are also recognised and reinforced by the Undeveloped Coast policy area. Sensitivity in these areas will be higher than is typical for the remainder of the LCT.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Time depth / historical continuity	The predominant historic landscape types within the LCT include relatively modern 18th, 19th and 20th century agricultural enclosures, which occupy the majority of the areas outside the settlements and typically have a low time depth, reducing sensitivity to all forms of development under consideration. However, there is also a wide variety of other types, which occur infrequently across the LCT and typically occupy discrete, smaller areas. These include informal parkland, unimproved rough pasture, small farm clusters, enclosed meadow, historic earthworks, commons and woodland plantations, which will exhibit a greater time depth and historical continuity, and therefore increased sensitivity in these localised areas.	↓	↓	↓	↓	↓	↓	↓	↓	↓

Coastal Shelf

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	As noted above, the more undeveloped parts of the Coastal Shelf type lie within the North Norfolk Coast AONB, whilst the main settlements (Sheringham, Cromer, Overstrand and Mundesley) are excluded from this designation. Any of the types of development under consideration in this study have the potential to affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or potentially affecting these areas by virtue of their location/proximity, unless they are in the urban area.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The parts of the LCT which are not within the AONB are typically of a moderate scenic quality. The density and extent of modern settlement / built form and busy road network detract from scenic quality while the presence of historic town / village cores, long views along the coast and inland to the wooded ridge, and occasional landmark skyline features enhance scenic quality. <u>Representativeness:</u> The majority of the LCT is relatively typical arable farmland, woodland and settlement. <u>Rarity:</u> Few rare landscape types are present.	– / ↓	– / ↓	– / ↓	– / ↓	– / ↓	– / ↓	– / ↓	– / ↓	– / ↓

Coastal Shelf

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	Intactness: The landscape is not particularly intact as the farmland areas have been adversely affected by 20th century intensive agriculture and associated hedgerow removals, and much piecemeal and in-fill development has occurred in between the historic town and village cores, e.g. many prominent cliff-top caravan parks. Nature conservation & cultural heritage interests: There are several extensive stretches of coastal cliffs designated for their important soft cliff habitats, which host a number of rare species. Overstrand Cliffs is designated as a SAC and SSSI, whilst, Weybourne, Beeston, Sidestrand and Trimingham Cliffs are SSSIs. Beeston Regis Common is also an inland SSSI and SAC in relation to its lowland heathland and fen habitats. Priority habitats are typically fragmented across the LCT, and include deciduous woodland, lowland heathland, dry acid grassland, meadows, fens and traditional orchards. There is an above average presence of cultural heritage assets within the LCT, with many Conservation Areas and listed buildings focused around the historic settlement cores, e.g. Weybourne, Cromer, West Runton & Overstrand. There are also several Scheduled Monuments and a Grade II Registered Park and Garden at The Pleasaunce, Overstrand. Recreational value: Recreational value is high due to the combination of the extensive coastline and beaches, the Norfolk Coast Path National Trail, numerous golf courses,									

Coastal Shelf

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	outdoor visitor attractions and PRoWs allowing access inland to the wooded ridge and associated Open Access Land. <u>Literary / artistic associations:</u> The Coastal Shelf landscape has been depicted in the paintings of several renowned Norfolk artists, including John Sell Cotman, John Craske and John Crome. Cromer is also referenced in Emma by Jane Austen (1815), and Cromer Hall is believed to have been the inspiration for Baskerville Hall in Sir Arthur Conan Doyle's novel The Hound of the Baskervilles.	–	–	–	–	–	–	–	–	–

Coastal Shelf

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	AONB	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	**OUT**	Parts of the LCT outside the AONB (i.e. the main settled areas) have a busy character with much activity, low intactness and low time depth (outside the Conservation Areas and Scheduled Monument), which reduce sensitivity to large scale wind turbines. However, this is outweighed by the undulating and generally open character, intimate scale, and very frequent human scale features including landmark church towers which all increase sensitivity to large scale wind turbines. In addition, the presence of large scale wind turbines in this general area outside the AONB would result in them forming prominent skyline features visible from within the AONB, including in the long, uninterrupted and valued coastal views, which has the potential to adversely affect the defined AONB special qualities (see below). Overall, typical sensitivity to this scale of turbine is considered to be **high**.	**High**
	IN	In addition to the above, the landscape within the AONB is typically undeveloped, more strongly undulating, open and exposed, with a more prominent undeveloped skyline, areas of pronounced slopes and significantly greater tranquillity/lower human intervention; characteristics which further increase sensitivity to large scale turbines. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. soft cliffs). These nationally valued landscape qualities are likely to be adversely affected by the presence of large scale wind turbines, and ensure the highest level of sensitivity. The area around Sheringham Hall and Park and the Upper Sheringham Conservation Area (predominantly within the neighbouring Wooded Ridge LCT) will also have particular cultural heritage sensitivities associated with it.	**High**
Medium scale wind turbines, (up to 60m hub height)	**OUT**	Parts of the LCT outside the AONB (i.e. the main settled areas) have a busy character with much activity, low intactness and low time depth (outside the Conservation Areas and Scheduled Monument), which reduce sensitivity to medium scale wind turbines. However, this is outweighed by the undulating and generally open character with areas of a more intimate scale, and very frequent human scale features including landmark church towers which increase sensitivity to medium scale wind turbines. In addition, the presence of medium scale wind turbines in this general area outside the AONB would result in them forming prominent skyline features visible from within the AONB, including in the long, uninterrupted and valued coastal views, which has the potential to adversely affect the defined AONB special qualities (see below). Overall, typical sensitivity to this scale of turbine is considered to be **high**.	**High**
	IN	In addition to the above, the landscape within the AONB is typically undeveloped, more strongly undulating, open and exposed, with a more prominent undeveloped skyline, areas of pronounced slopes and significantly greater tranquillity/lower human intervention; characteristics which further increase sensitivity to medium scale turbines. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important,	**High**

Coastal Shelf

		locally distinctive habitats (e.g. soft cliffs). These nationally valued landscape qualities are likely to be adversely affected by the presence of medium scale wind turbines, and ensure the highest level of sensitivity. The area around Sheringham Hall and Park and the Upper Sheringham Conservation Area (predominantly within the neighbouring Wooded Ridge LCT) will also have particular cultural heritage sensitivities associated with it.	
Small scale wind turbines, (up to 30m hub height)	**OUT**	Parts of the LCT outside the AONB (i.e. the main settled areas) have a busy character with much activity, low intactness and low time depth (outside the Conservation Areas and Scheduled Monument), which reduce sensitivity to small scale wind turbines. However, this is outweighed by the undulating and generally open character with very frequent human scale features including landmark church towers, which increase sensitivity to even small scale wind turbines. In addition, small scale turbines could be visible from within the AONB, including in the long, uninterrupted and valued coastal views, which has the potential to adversely affect the defined AONB special qualities (see below). Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is typically undeveloped, more strongly undulating, open and exposed, with a more prominent undeveloped skyline, areas of pronounced slopes and significantly greater tranquillity/lower human intervention; characteristics which further increase sensitivity to small scale turbines. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. soft cliffs). These nationally valued landscape qualities are likely to be adversely affected by the presence of small scale wind turbines, and ensure the highest level of sensitivity. The area around Sheringham Hall and Park and the Upper Sheringham Conservation Area (predominantly within the neighbouring Wooded Ridge LCT) will also have particular cultural heritage sensitivities associated with it.	**High**
Field-scale solar PV development (above 10 hectares site area)	**OUT**	Parts of the LCT outside the AONB (i.e. the main settled areas) have a busy character with much activity, low intactness and low time depth (outside the Conservation Areas and Scheduled Monument), which reduce sensitivity to field-scale solar PV development. However, this is outweighed by the undulating and generally open character with intermittent presence of hedgerow field boundaries (which reduces opportunities for screening), the generally irregular scale and form of fields, with high recreational value, particularly in the vicinity of the coast, which increase sensitivity to field-scale solar PV development. Overall, this scale of solar PV development would be difficult to sensitively accommodate and screen in this open coastal landscape, and typical sensitivity is considered to be **moderate-high**.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is typically undeveloped, more strongly undulating, open and exposed, with a more prominent undeveloped skyline, areas of pronounced slopes and significantly greater tranquillity/lower human intervention; characteristics which further increase sensitivity to field-scale solar PV development. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. soft cliffs). These nationally valued landscape qualities are likely to be adversely affected by the presence of field-scale solar PV development, and ensure the highest level of sensitivity. The area around Sheringham Hall and Park and the Upper Sheringham Conservation Area (predominantly within the neighbouring Wooded Ridge LCT) will also have particular cultural heritage sensitivities associated with it.	**High**

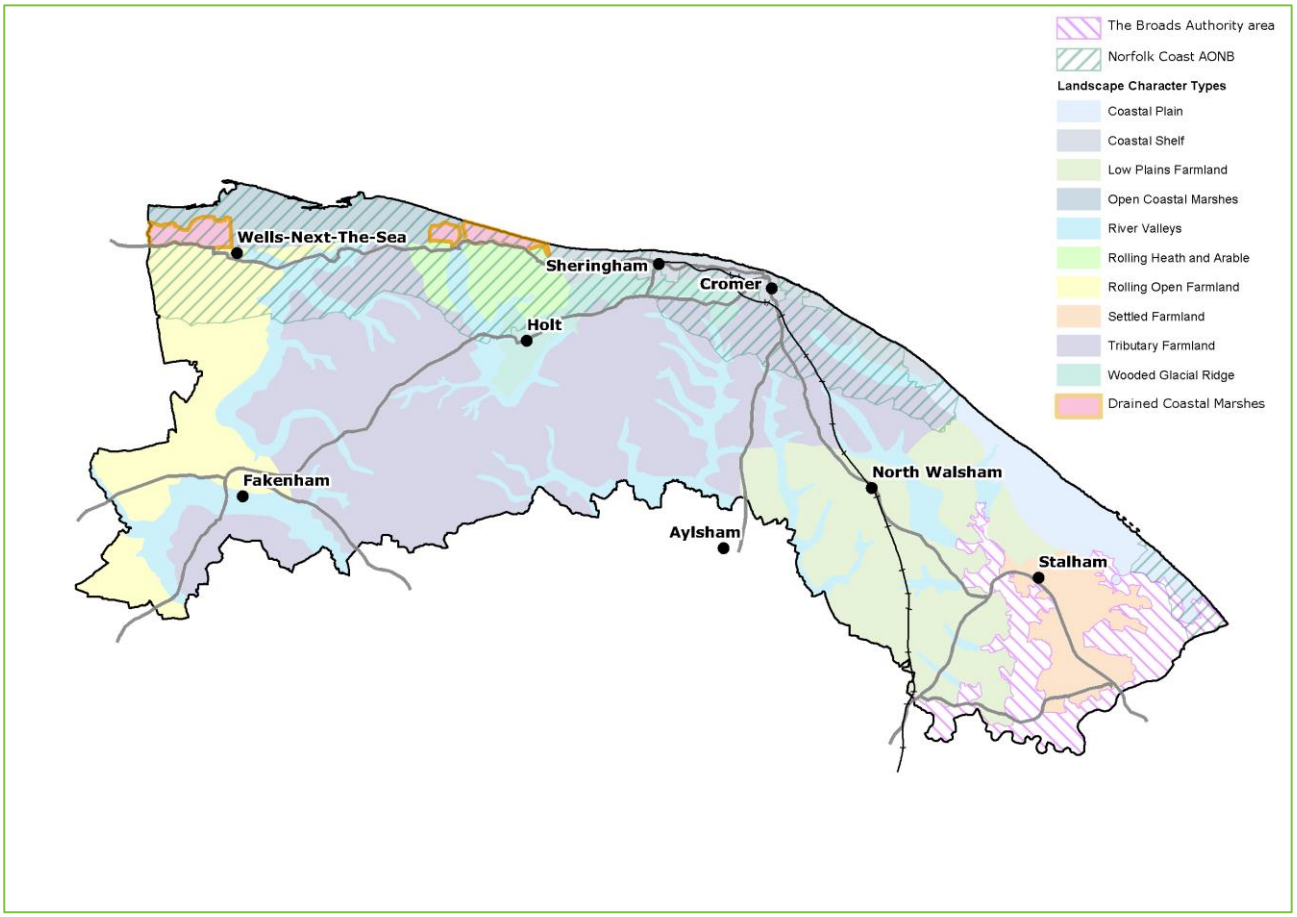
Coastal Shelf

Onshore cable routes for offshore wind farms (30m-80m clearance)	**OUT**	Whilst there are smaller areas of relatively flatter, arable farmland within the parts of the LCT outside the AONB, which have a lower sensitivity to onshore cable routes, these are interspersed with more varied landcover including built-up areas and housing, and extensive stretches of cliffs are designated as SSSIs due to their nationally valued geological and/or ecological interest, which increase sensitivity. Sensitivity is also increased by the generally open and exposed character, high recreational value, particularly in the vicinity of the coast, the presence of Beeston Regis Common SSSI and SAC and cultural heritage designations such as Conservation Areas and a Scheduled Monument at Beeston Regis Priory. Overall, typical sensitivity to this type of development is considered to be **moderate-high**.	**Moderate-High**
	IN	The landscape within the AONB has a predominantly arable landcover, which has a lower sensitivity to onshore cable routes. However, this is counterbalanced by an undulating landform, prominent undeveloped skyline, areas of pronounced slopes, tranquillity/low human intervention and frequent naturalistic landcover (e.g. further extensive soft cliffs including Overstrand Cliffs SSSI and SAC, as well as pasture, dry acid grassland, woodland, lowland heath and fen); characteristics which increase sensitivity to cable laying. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats. Cable laying could affect the undeveloped coastal character, sense of remoteness and tranquillity, and recreational value, for a temporary period, and could result in permanent or long term impacts on naturalistic habitats, unless carefully routed/constructed. Typical sensitivity to underground cables is considered to be **moderate-high** in the areas of the LCT that fall within the AONB. The area around Sheringham Hall and Park and the Upper Sheringham Conservation Area (predominantly within the neighbouring Wooded Ridge LCT) will also have particular cultural heritage sensitivities associated with it.	**Moderate-High**
Commercial battery storage schemes, Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	**OUT**	Parts of the LCT outside the AONB (i.e. the main settled areas) have a busy character with much activity, low intactness and low time depth (outside the Conservation Areas and Scheduled Monument), which reduce sensitivity to industrial type developments. However, this is outweighed by the generally open character with intermittent or low presence of hedgerow field boundaries and larger areas of trees and woodland (which reduces opportunities for screening), the generally irregular scale and form of fields, with some more intimate areas, very frequent human scale features and high recreational value, particularly in the vicinity of the coast, which all increase sensitivity to industrial type development. Overall, this form of development would be difficult to sensitively accommodate and screen in this open coastal landscape without harm to key landscape characteristics, and typical sensitivity is considered to be **moderate-high** outside the urban industrial estates. Areas of relatively lower sensitivity may exist amongst some of the existing urban areas such as industrial or commercial estates, or close to larger-scale built form (e.g. warehouses) within and on the edges of Cromer and Sheringham; however, these areas tend to be adjacent to or in close proximity to the AONB, so sensitive siting and screening would be a key consideration.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is typically undeveloped, more strongly undulating, open and exposed, with a more prominent undeveloped skyline, areas of pronounced slopes and significantly greater tranquillity/lower human intervention; characteristics which further increase sensitivity to industrial type developments. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. soft cliffs). Industrial type developments have the potential to affect all of these qualities. Therefore,	**High**

Coastal Shelf

		typical sensitivity to such development is considered to be **high** in the areas of the LCT that fall within the AONB. The area around Sheringham Hall and Park and the Upper Sheringham Conservation Area (predominantly within the neighbouring Wooded Ridge LCT) will also have particular cultural heritage sensitivities associated with it.	
Reservoirs (typical size range 2 – 5ha)	**OUT**	The relatively flatter topography of the parts of the LCT outside the AONB (i.e. the main settled areas) means that there are fewer opportunities to naturally integrate reservoir embankments within the surrounding landform, which increases sensitivity. Sensitivity is also increased by the generally open character with intermittent or low presence of hedgerow field boundaries and larger areas of trees and woodland (which reduces opportunities for screening), the generally irregular scale and form of fields, with some more intimate areas, very frequent human scale features and high recreational value, particularly in the vicinity of the coast. Overall, this form of development would be difficult to sensitively accommodate and screen in this open coastal landscape and typical sensitivity is considered to be **moderate-high**.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is typically more strongly undulating, which increases opportunities to naturally integrate reservoir embankments within the surrounding landform, and lowers sensitivity. However, this is counterbalanced by the more undeveloped, open and exposed character, and significantly greater tranquillity/lower human intervention; characteristics which increase sensitivity to reservoir development. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. soft cliffs). Although reservoirs are unlikely to affect the undeveloped skylines within the AONB, they may be perceived in views from certain higher vantage points inland, affecting the sense of remoteness and tranquillity and undeveloped coastal character. Therefore, typical sensitivity to such development is considered to be **moderate-high** in the areas of the LCT that fall within the AONB. The area around Sheringham Hall and Park and the Upper Sheringham Conservation Area (predominantly within the neighbouring Wooded Ridge LCT) will also have particular cultural heritage sensitivities associated with it.	**Moderate-High**

Drained Coastal Marshes



Drained Coastal Marshes

Baseline Landscape

Introduction to the Landscape Character Type

The Drained Coastal Marshes Type are areas of former Open Coastal Marsh (intertidal marsh) that have been drained and enclosed, forming a flat open landscape comprising some important grazing marsh habitat as well as sand dunes, pine woodland and arable farmland.

All parts of the Type fall within the Norfolk Coast AONB and North Norfolk's Undeveloped Coast policy area, and the majority of the Type also falls within the North Norfolk Heritage Coast.

Component Character Areas

There are two geographically distinct areas of Drained Coastal Marsh in North Norfolk:

DCM1 - Holkham Drained Marshes

DCM2 - Blakeney, Wiveton, Cley and Salthouse Drained Marshes

Key Characteristics[13]

- A flat, open low lying landscape dominated by grazing marsh and drained farmland
- Enclosed by natural (sand dunes, shingle banks) or man-made (clay) banks which keep the sea out
- A dynamic and changing landscape
- A remote, peaceful landscape, but with some 'honeypots' of activity and built development
- Nature conservation interest, notably the freshwater marsh which is a haven for breeding birds
- Evidence of past land use including historic farmsteads and field patterns, salt pans, medieval fisheries and water mills
- Access provided by tracks and footpaths, and occasional roads
- Large skies and long views

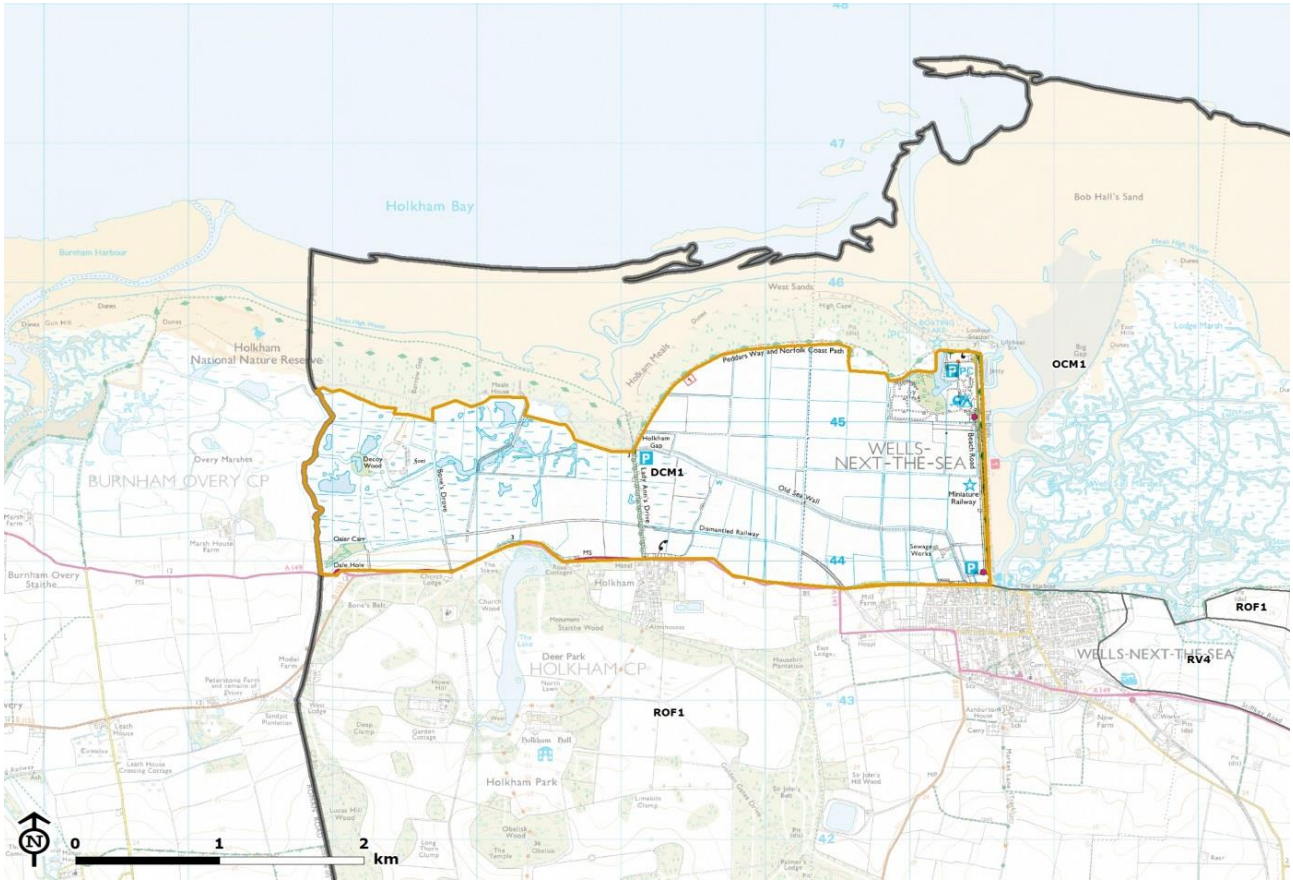
Valued features and qualities

- Areas of coastal grazing marsh, reedbeds, rush pastures, saline lagoons and shingle banks of significant ecological value
- The sense of openness, large skies, and quality of coastal light
- Relative absence of human settlement and remote, peaceful nature
- Historic features including remnant historic buildings, historic field patterns, salt pans, medieval fisheries and water mills
- The shingle ridge
- Recreational value

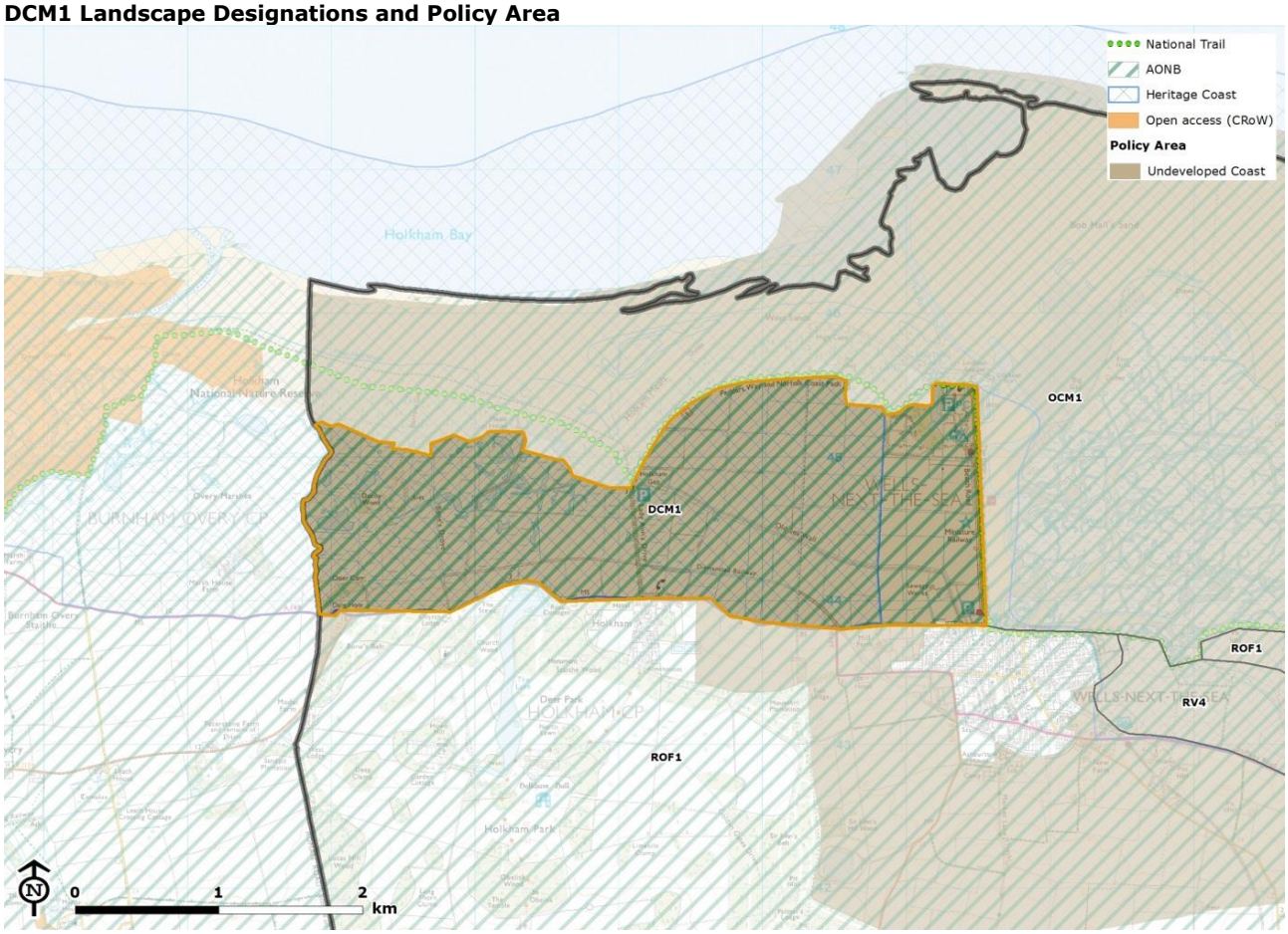
[13] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

Drained Coastal Marshes

Location of DCM1

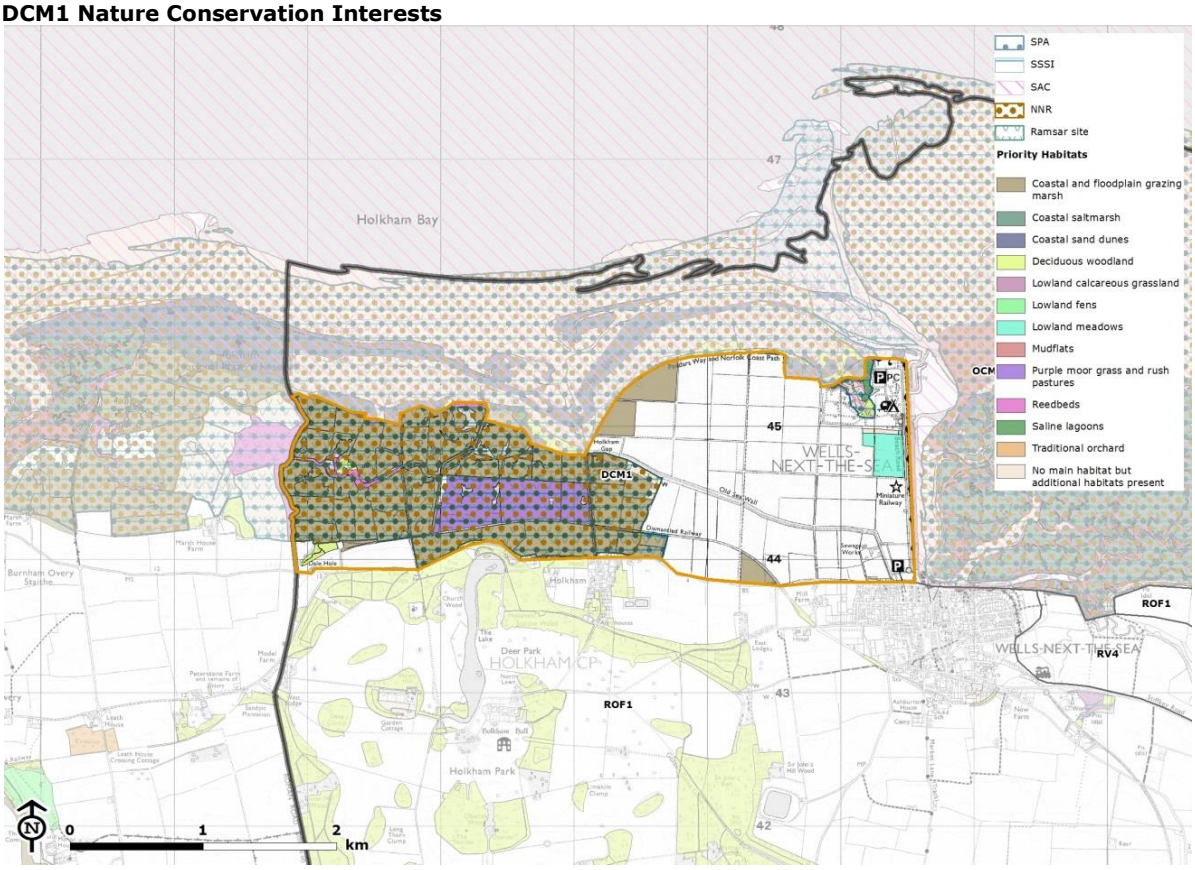


DCM1 Landscape Designations and Policy Area

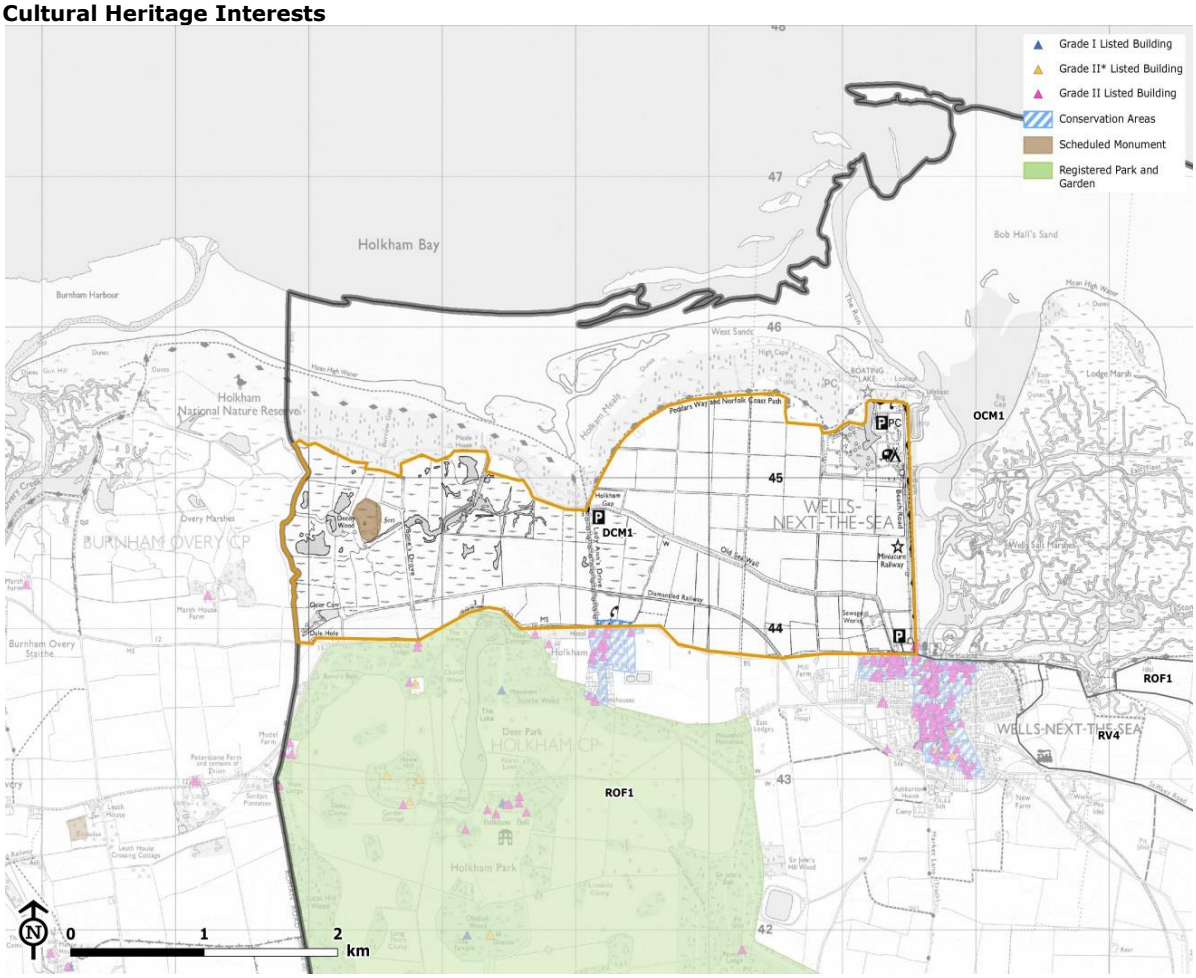


Drained Coastal Marshes

DCM1 Nature Conservation Interests



Cultural Heritage Interests

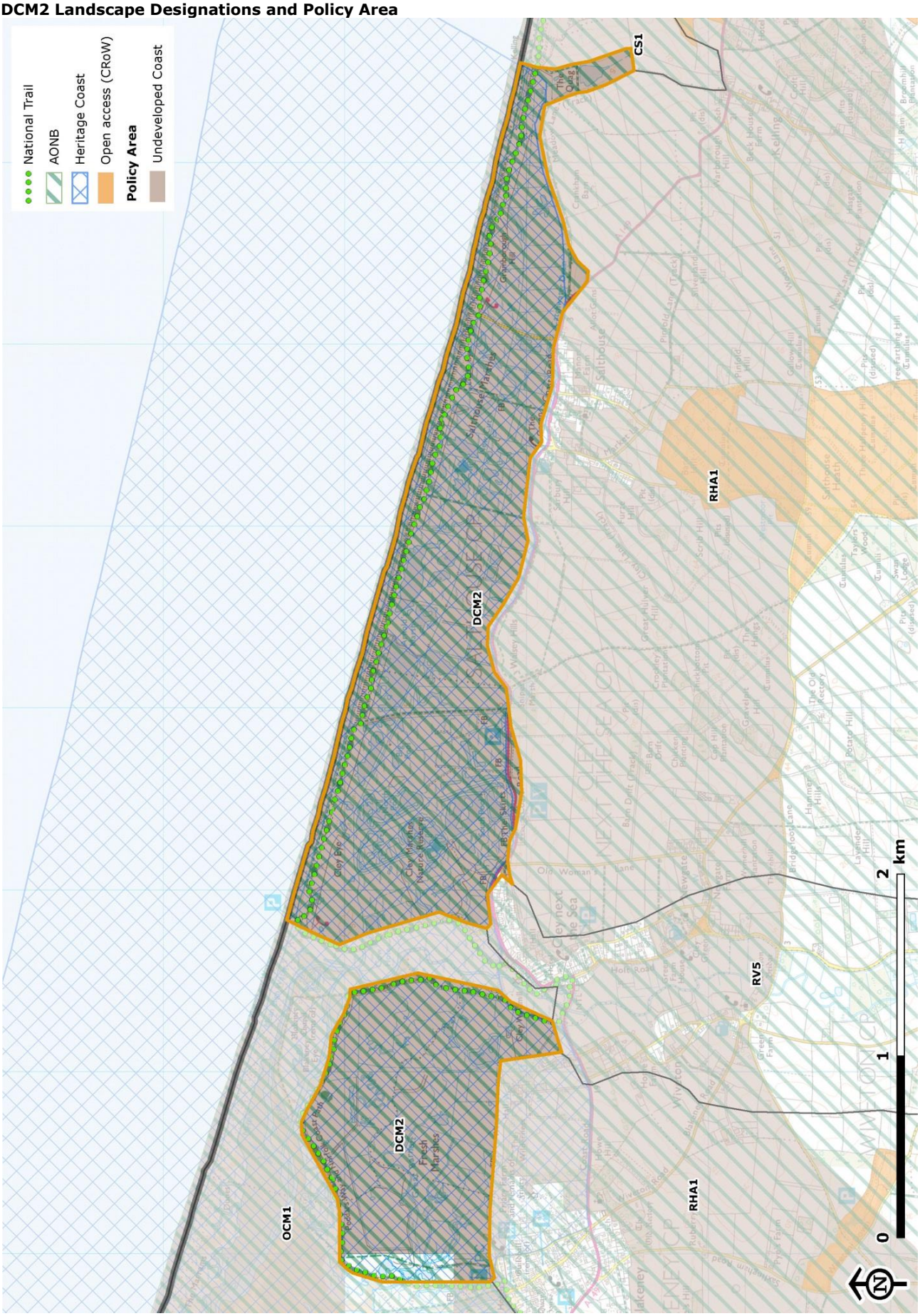


Drained Coastal Marshes

Location of DCM2

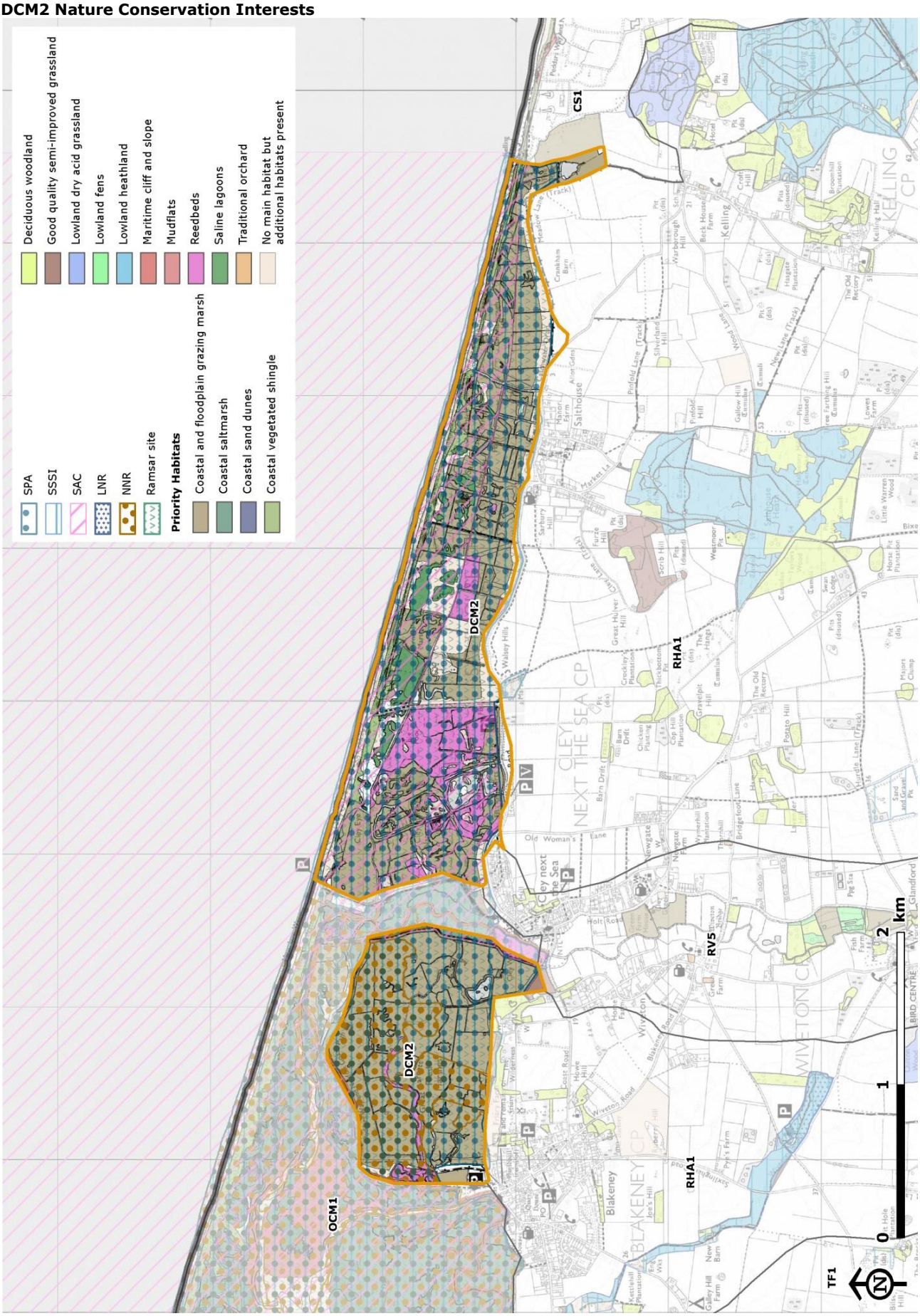
Drained Coastal Marshes

DCM2 Landscape Designations and Policy Area



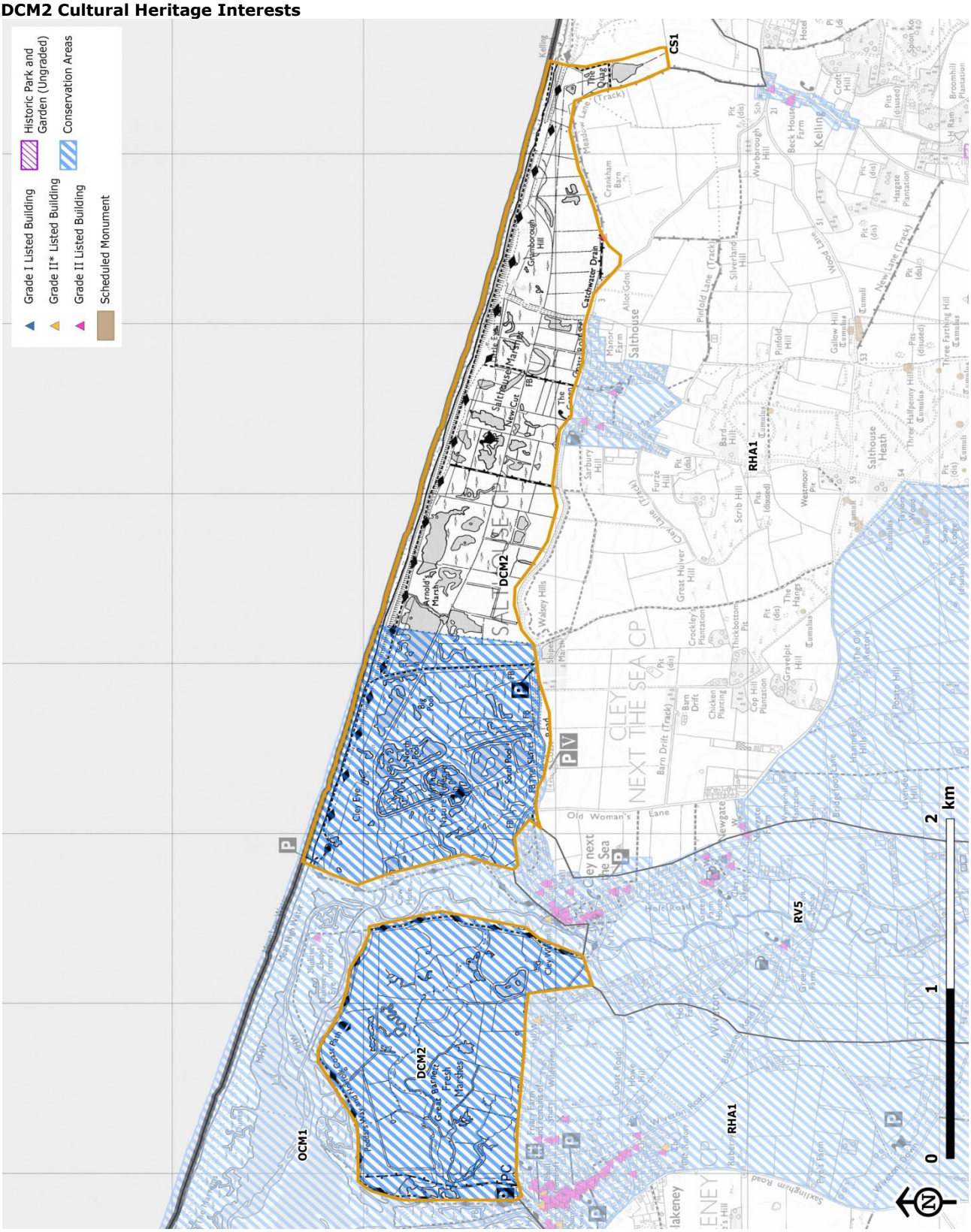
Drained Coastal Marshes

DCM2 Nature Conservation Interests



Drained Coastal Marshes

DCM2 Cultural Heritage Interests



Drained Coastal Marshes

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Drained Coastal Marshes LCT against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Flat and predominantly naturalistic landform with undeveloped skylines, which is intrinsic to the character of the LCT. This increases sensitivity to all development types.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Landcover	Combination of naturalistic freshwater grazing marshes, saline lagoons, reedbeds and rush pastures (all of DCM2 and part of DCM1 – i.e. the majority of the LCT), which increases sensitivity to all development types, and arable / improved pasture (part of DCM1), which does not strongly influence sensitivity in either direction (except for onshore cable routes).	↑	↑	↑	↑	↑	↑	↑	↑	↑
Sense of openness/ enclosure	Landscape has a highly open and exposed character due to the combination of flat landform, low-lying vegetation and absence of development/visual screening. This increases sensitivity to all development types. Generally, the only sense of (seaward) enclosure within the landscape is provided by the coastal pine woods within the adjacent open coastal marsh at Holkham (relevant to DCM1).	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern &	The uniformly flat landform, and long, uninterrupted coastal views create a large-scale, expansive landscape. However, the apparent simplicity of the landscape pattern hides some significant complexities in terms of the interaction of the mosaic of coastal habitats.	↑	↑	↑	–	✕	↑	↑	↑	↑

Drained Coastal Marshes

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
complexity	Whilst the expansive landscape scale generally reduces sensitivity to the larger scale developments, such as wind turbines, this is counterbalanced by the frequently complex landscape pattern where marsh, creeks and lagoons interact.									
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	A strong sense of tranquillity and remoteness prevails in most parts of the LCT, particularly DCM2 which is mostly managed as nature reserves by the Norfolk Wildlife Trust. There is greater human activity and intervention in parts of DCM1, including the large Pinewoods holiday park and public car park north of Wells-next-the-Sea, and the Lookout Visitor Centre and car park at Lady Ann's Drive close to Holkham beach. Overall, the level of tranquillity, remoteness and human influence increases sensitivity to all development types. These characteristics are recognised and reinforced by the Undeveloped Coast policy area.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	There are a number of historic landscape types throughout the LCT which display a strong sense of time depth and historic qualities, plus the potential for preserved archaeological evidence. This includes areas of unimproved marine marsh, pre-18th century curvilinear drained enclosures and the historic earthwork (Iron Age fort) north-west of Holkham, which increase sensitivity to all forms of development.	↑	↑	↑	↑	↑	↑	↑	↑	↑

Drained Coastal Marshes

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	All parts of the Type fall within the Norfolk Coast AONB, and the majority of the Type also falls within the North Norfolk Heritage Coast. Any of the types of development under consideration in this study have the potential to adversely affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or affecting these areas.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The high scenic quality is recognised through AONB and Heritage Coast designations, which together incorporate the whole of this LCT (see above). <u>Representativeness:</u> The drained coastal marshes are a particularly important and representative example of this landscape type. <u>Rarity:</u> The mosaic of habitats present within the LCT is nationally rare. <u>Intactness:</u> The landscape displays varying degrees of intactness,and parts have been subject to 20th century agricultural intensification (enclosures in DCM1 enlarged and converted to arable). Parts are also subject to constant and dynamic natural change, particularly inundation of freshwater marshes with saltwater during storm events.	↑ ↑ ↑ –	↑ ↑ ↑ –	↑ ↑ ↑ –	↑ ↑ ↑ –	↑ ↑ ↑ –	↑ ↑ ↑ –	↑ ↑ ↑ –	↑ ↑ ↑ –	↑ ↑ ↑ –

Drained Coastal Marshes

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	<u>Nature conservation and cultural heritage interests</u> The majority of the landscape (the only exception being the easterly part of DCM1) is subject to a range of national and international nature conservation designations, reflecting the importance and rarity of habitats and species: Ramsar; SPA; SAC; NNR; SSSI. There are limited heritage assets within the LCT, reflecting the lack of human intervention and settlement. The Glaven Valley Conservation Area extends to the mouth of the River Glaven, within the LCT. <u>Recreational value</u> The Norfolk Coast Path National Trail runs along the boundary of the LCT. The area is also important for a range of other recreational activities, notably bird watching within Cley and Salthouse Marshes Nature Reserves. <u>Literary / artistic associations</u> There are no known famous literary/artistic associations for the Drained Coastal Marshes landscape.	↑	↑	↑	↑	↑	↑	↑	↑	↑
		–	–	–	–	–	–	–	–	–
		↑	↑	↑	↑	↑	↑	↑	↑	↑
		–	–	–	–	–	–	–	–	–

Drained Coastal Marshes

Overall sensitivity to different development types

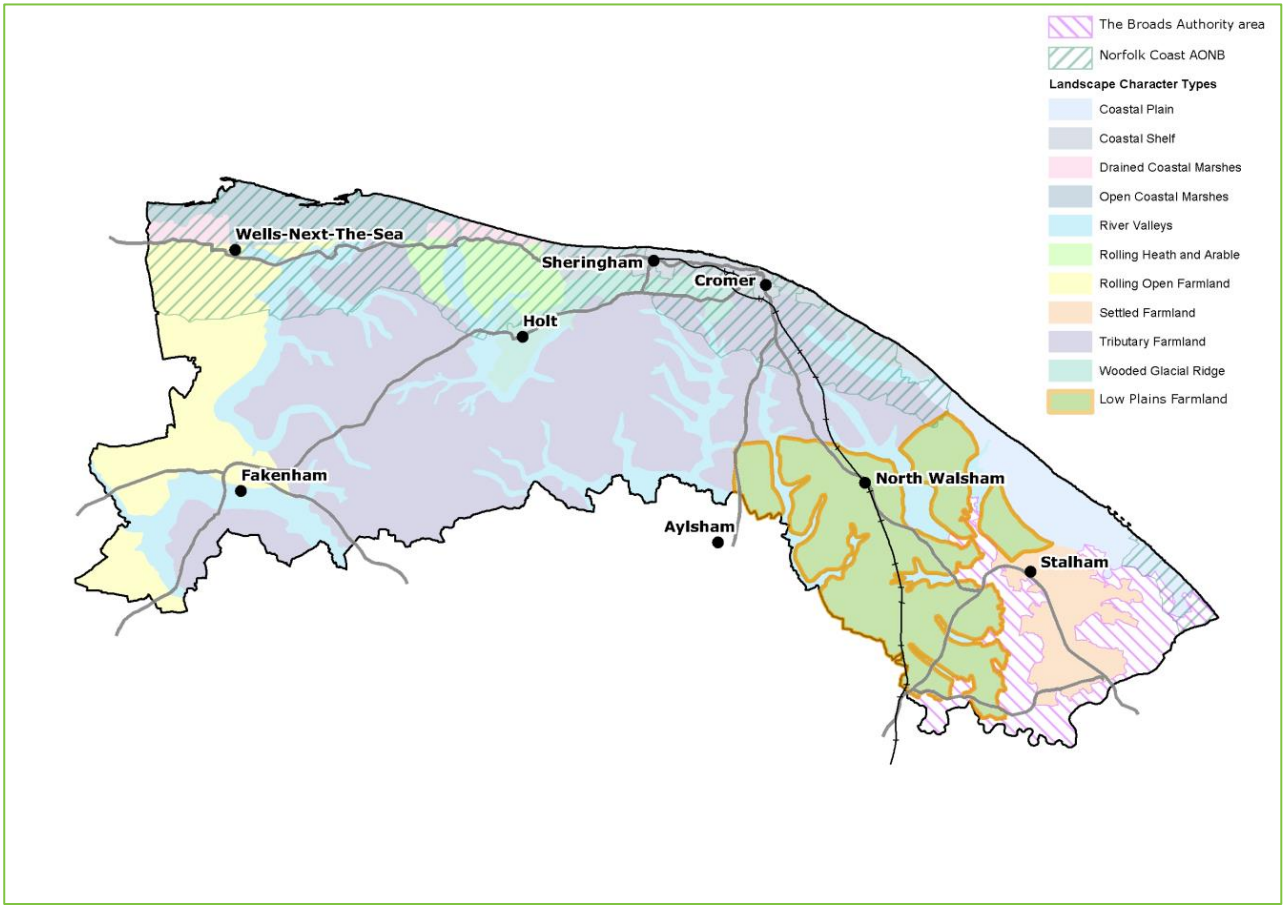
The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	This predominantly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered highly sensitive to large scale wind turbines. This scale of turbine sited anywhere in the LCT would be widely visible in long coastal views, and views inland, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to large scale wind turbines throughout the LCT is considered to be high.	**High**
Medium scale wind turbines, (up to 60m hub height)	This predominantly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered highly sensitive to medium scale wind turbines. This scale of turbine sited anywhere in the LCT would be widely visible in long coastal views, and views inland, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to medium scale wind turbines throughout the LCT is considered to be high.	**High**
Small scale wind turbines, (up to 30m hub height)	This predominantly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered highly sensitive to small scale wind turbines. This scale of turbine sited anywhere in the LCT would be visible in long coastal views, and views inland, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to small scale wind turbines throughout the LCT is considered to be high.	**High**
Field-scale solar PV development (above 10 hectares site area)	Whilst the generally flat landform could reduce sensitivity to low-lying field-scale solar PV development, this conceals significant complexities of landform in large areas of the LCT, in terms of the naturalistic habitat mosaic, interaction and subtle topographical variations of marsh, creeks and lagoons, which increases sensitivity. In addition, the predominantly naturalistic landcover, open and exposed landscape, with long uninterrupted views over the open coastal marsh, including from higher coastal vantage points, general absence of screening elements, strong time depth and the broad range of valued landscape features, in addition to AONB and Heritage Coast designation, all increase sensitivity. This form of development sited anywhere in the LCT is likely to adversely affect the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to field-scale solar PV development throughout the LCT is considered to be high.	**High**
Onshore cable routes for offshore wind farms (30m-80m clearance)	The flat yet complex landform, predominantly naturalistic landcover mosaic, open and exposed landscape with few screening/filtering features, long uninterrupted views over the open coastal marsh, including from higher coastal vantage points, strong time depth and the broad range of valued landscape features, in addition to AONB and Heritage Coast designation, all increase sensitivity to onshore cable routes. The introduction of onshore cable routes through the LCT is likely to adversely affect the nationally valued scenic qualities and natural beauty of the AONB (in	**High**

Drained Coastal Marshes

Development Type	Reason for judgement	Overall Sensitivity
	particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Localised areas of lower sensitivity are restricted to the modern arable and improved pasture in the eastern part of DCM1, as this landcover is able to recover more quickly from the temporary cable laying phase. However, overall, typical sensitivity to this form of development throughout the LCT is considered to be high.	
Commercial battery storage schemes, Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	This predominantly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered uniformly highly sensitive to industrial type developments. Such developments sited anywhere in the LCT would be visible in long coastal views and views inland, including from higher vantage points, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to industrial type developments throughout the LCT is considered to be high.	**High**
Reservoirs (typical size range 2 – 5ha)	The flat yet complex landform, predominantly naturalistic landcover mosaic, open and exposed landscape with few features to help screen reservoir embankments, long uninterrupted views over the open coastal marsh, including from higher coastal vantage points, strong time depth and the broad range of valued landscape features, in addition to AONB and Heritage Coast designation, all increase sensitivity to reservoirs. The introduction of reservoirs is likely to adversely affect the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to this form of development throughout the LCT is considered to be high.	**High**

Low Plain Farmlands



Low Plain Farmlands

Baseline Landscape

Introduction to the Landscape Character Type

The Low Plains Farmland Type is characterised by a flat or gently undulating open landscape with long, uninterrupted views, predominantly arable land use and dispersed rural settlements, including the expanding market town of North Walsham. The landscape becomes less enclosed and wooded towards the coast, as a result of 20th Century agriculture and hedgerow removals.

A very small area (c.21ha) in the far north of the LCT around Paston falls within the Norfolk Coast AONB. The south-eastern part of the LCT borders the Broads, which have the status of a national park. The coastal edge of the LCT also forms part of North Norfolk's Undeveloped Coast policy area.

Component Character Areas

There is one large continuous area of Low Plains Farmland in North Norfolk:

LPF1 – North Norfolk Low Plains Farmland

Key Characteristics[14]

- Flat or very gently undulating terrain, draining by small streams
- A rural landscape in which arable land use predominates with pasture more common closer to the river valleys and the Broads
- An open landscape with large fields and low hedges
- Grassed bank and ditch field boundary features
- A 'copse and small wood landscape'
- Remnant heaths
- Areas of parkland and estates
- Settlement comprises market towns, rural villages, hamlets and dispersed farmsteads
- RAF Coltishall
- A network of rural lanes linking settlements
- An expansive landscape with long views and church towers as landmark features

Valued features and qualities

- Strong rural character with a sense of remoteness and tranquillity
- Historic parklands
- Woodlands, hedgerows and hedgerow trees
- Remnant semi-natural habitats
- Historic market towns and villages with vernacular buildings
- Rural lanes
- RAF Coltishall
- Long views punctuated by distinctive skyline features including numerous church tower

[14] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

Low Plain Farmlands

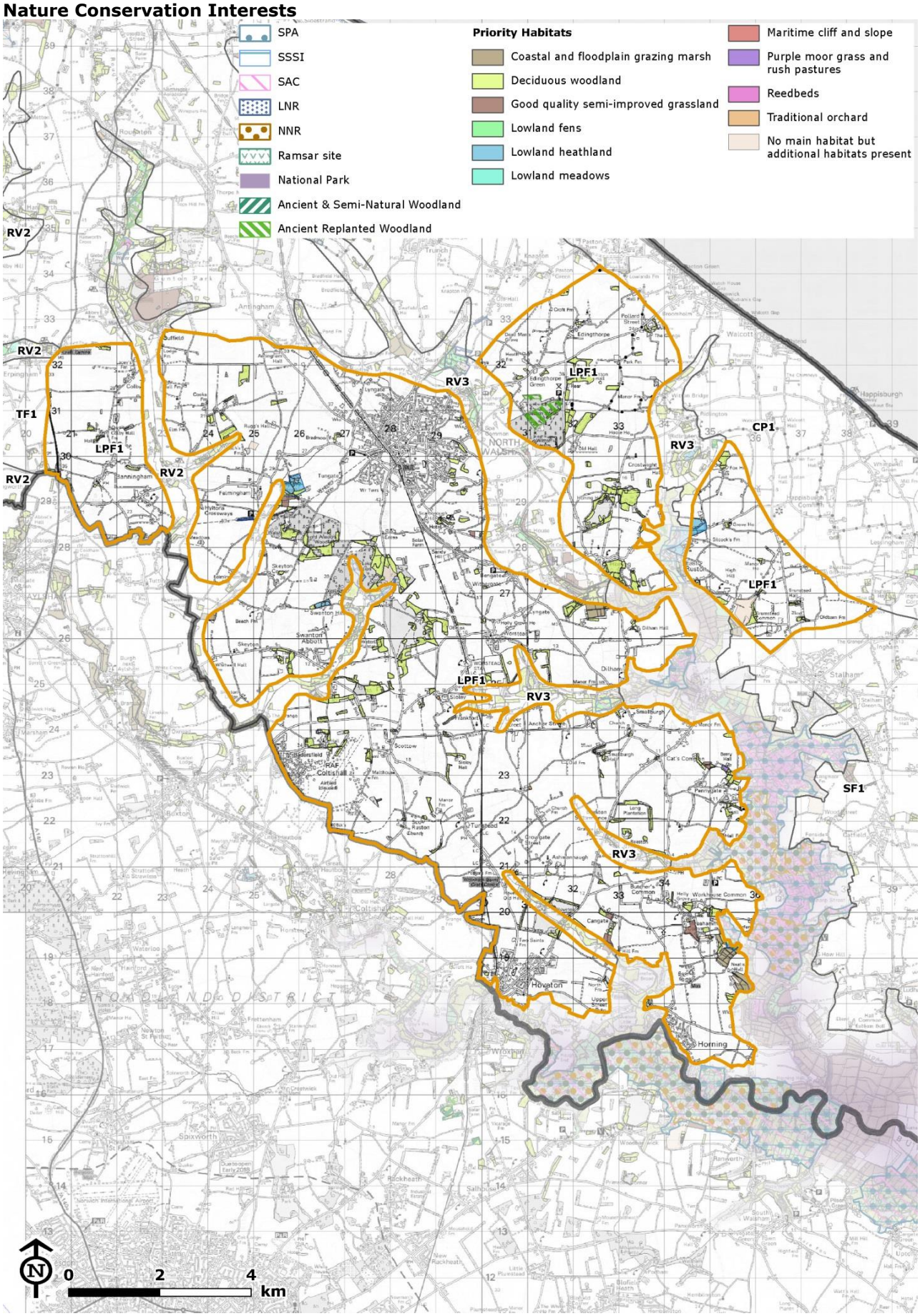
Location of LPF1

Low Plain Farmlands

Landscape Designations and Policy Area

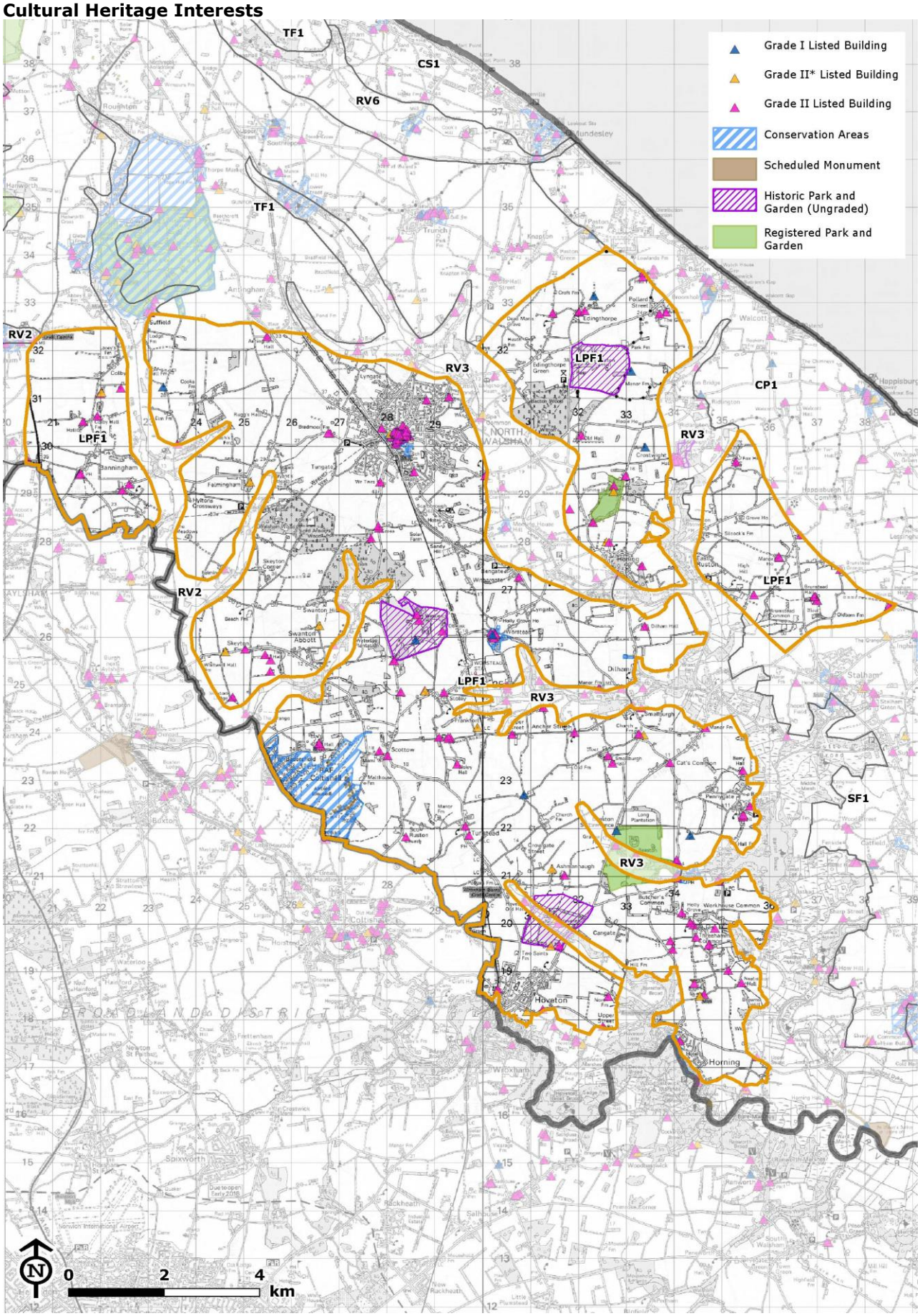
Low Plain Farmlands

Nature Conservation Interests



Low Plain Farmlands

Cultural Heritage Interests



Low Plain Farmlands

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Low Plains Farmland LCT against the sensitivity criteria which have been predetermined for the development types under consideration.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	A largely flat or very gently undulating landform, resulting in limited areas with visually prominent slopes. Slopes are more common where the LCT borders the river valleys which dissect the landscape. The flattest areas border the Broads, whereas the north of the LCT is higher and less undulating. Skylines are generally undeveloped and formed by farmland and woodland, and fairly frequently punctuated by landmark church towers. Localised areas within and around North Walsham contain modern built form on the skyline, such as water towers, larger-scale industry/commercial buildings and housing. The generally flat landform lowers sensitivity to all forms of development except reservoirs, whilst the undeveloped skylines increase sensitivity to taller structures such as wind turbines. Sensitivity to cable relay stations, battery storage schemes and AD plants is not strongly influenced in either direction.	↑	↑	↑	↓	↓	–	–	–	↑
Landcover	A combination of predominantly arable farmland across much of the landscape, smaller areas of pasture around settlement and the valleys/Broads, scattered woodlands, parklands and remnant heathland. The predominant arable landcover does not strongly influence sensitivity in either direction, except for onshore cable routes, as arable farmland is able to easily recover	–	–	–	–	↓	–	–	–	–

Low Plain Farmlands

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	from the temporary cable laying phase. The areas of semi-natural habitats would have a higher sensitivity to all forms of development.									
Sense of openness/ enclosure	A generally open character, due to the combination of large arable fields typically bounded by low grass banks due to widespread hedgerow removal. In the extensive areas of generally open character, the sense of openness and relative lack of visual screening/ containment increases sensitivity to any new development. Localised areas of greater enclosure are provided by mature oak trees, which line many roads and field boundaries, scattered woodlands, some extensive such as Bacton Woods and to the north of Westwick, and river valleys due to the landform and frequency of higher hedges.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern & complexity	Fields are generally of a medium to large size which reduces sensitivity to larger scale developments such as larger wind turbines and solar farms. However, there is variation in both size and shape, resulting in a more intricate, small scale landscape pattern in proximity to settlements and the river valleys which increases sensitivity to larger scale developments. In addition, the presence of vernacular villages, narrow rural lanes, farmsteads, historic estates, isolated churches and field/roadside trees also introduces relatively frequent human-scale features which also increase sensitivity to larger scale developments. Overall, these scale factors balance each other out for the larger scale developments (larger wind turbines, solar farms and reservoirs). The varied	–	–	–	–	✕	–	–	–	–

Low Plain Farmlands

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	scale of the landscape does not strongly influence sensitivity one way or the other for the other developments such as smaller scale turbines and cable relay stations, battery storage or AD plants.									
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	The rural settlement pattern means there are large areas of quiet rural farmland and dark skies at night in between the towns and villages, providing a sense of remoteness and tranquillity, which increase sensitivity to all forms of development under consideration. These qualities are also recognised and reinforced by the Undeveloped Coast policy area. The expanding town of North Walsham and its surroundings is one location where human influence is notably higher than is typical for the remainder of the LCT, with significant levels of road traffic, which reduces the sense of tranquillity and remoteness.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	The more common historic landscape types within the LCT include relatively modern 18th, 19th and 20th century agricultural enclosures, which occupy the vast majority of the area and typically have a low time depth, reducing sensitivity to all forms of development under consideration. However, there is also a variety of other types, which occur infrequently across the LCT and typically occupy discrete, smaller areas. These include informal parkland, ancient woodland, 17th – 20th century rectilinear grazing marsh, enclosed meadows and water meadows (in close proximity to the valleys and Broads), which will exhibit a greater time depth and historical continuity, and therefore increased sensitivity in these localised areas.	↓	↓	↓	↓	↓	↓	↓	↓	↓

Low Plain Farmlands

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	As noted above, the only landscape designation within the LCT is a very small part of the Norfolk Coast AONB (c.21ha), in the north of the area around Paston. The south-eastern part of the LCT borders, but is not within, the Broads. Any of the types of development under consideration in this study have the potential to affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or potentially affecting these areas by virtue of their location/proximity.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The vast majority of the LCT which is not within the AONB is typically of a moderate scenic quality by virtue of the medium to large scale, gently undulating and regular arable farmland, in combination with occasional historic vernacular settlements, landmark church towers, treed horizons and remnant field/roadside oaks and hedgerows. <u>Representativeness:</u> The landscape is not a particularly important example of arable farmland. <u>Rarity:</u> Few rare landscape types are present.	– / ↓ / ↓	– / ↓ / ↓	– / ↓ / ↓	– / ↓ / ↓	– / ↓ / ↓	– / ↓ / ↓	– / ↓ / ↓	– / ↓ / ↓	– / ↓ / ↓

Low Plain Farmlands

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Other indicators of value	<u>Intactness:</u> The landscape is not particularly intact as it has has been adversely affected by 20th century intensive agriculture and associated hedgerow removals, coupled with areas where hedges have not been maintained (this has been addressed in some areas by recent hedge plantings). <u>Nature conservation & cultural heritage interests:</u> The vast majority of the LCT is not subject to any nature conservation designations. Where present, designations are small and discrete, such as the Bryant's Heath SSSI, or very small designated areas from the adjacent Broads (Broadland SAC, SPA, SSSI), which go slightly beyond the Broads Authority boundary into the LCT. Priority habitats are typically fragmented across the LCT, and include deciduous woodland, lowland heath, floodplain grazing marsh and semi-improved grassland. Cultural heritage assets are scattered across the LCT, mainly in the form of isolated listed buildings. There are fewer Conservation Areas (North Walsham, Worstead, RAF Coltishall and Dilham) than in other LCTs, and two registered parks and gardens (Honing Hall and Beeston Hall). <u>Recreational value:</u> The LCT contains a typical number of PRoWs for the District, including the Weaver's Way and Paston Way Recreational Routes through North Walsham. Whilst no Naional Trails are present, there is an above average amount of Open Access Land, including Bacton Woods, Bryant's Heath and a	↓	↓	↓	↓	↓	↓	↓	↓	↓

Low Plain Farmlands

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	number of smaller commons close to the Broads. However, recreational use tends to be more focussed on the neighbouring coastal LCTs and the Broads. Literary / artistic associations: There is evidence that the prominent 18th & 19th Century landscape designer Humphry Repton influenced the design of historic parkland at Hoveton Hall and Honing Hall. The Murder of Roger Ackroyd, Agatha Christie: Agatha Christie spent time in North Walsham, which may be the setting for some of her writing.	–	–	–	–	–	–	–	–	–

Low Plain Farmlands

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	Reason for judgement	Typical Sensitivity
Large scale wind turbines, (up to 80m hub height)	Typical sensitivity to large scale wind turbines is ***high***: • The relatively flat landform, medium to large landscape scale, typically regular landscape pattern of arable fields and relatively low conservation interest (away from the Broads fringes) reduce sensitivity to large scale wind turbines. • However, this is outweighed by the open, exposed and strongly rural character, human scale features such as vernacular villages and farmsteads, generally undeveloped skylines punctuated by landmark church towers, and the proximity of the eastern parts to the Broads and the AONB, which all increase sensitivity. Sensitivity is likely to be particularly high: • Where there is strong visibility of turbines on the skyline from within the designated landscapes (the Broads and the AONB), and where their identified special qualities (notably the undeveloped character, sense of remoteness and tranquillity) would likely be affected by the development type; and • In the vicinity of Conservation Areas (e.g. Worstead) and registered parks and gardens, and/or where this scale of turbine may compete with landmark skyline features, such as church towers.	**High**
Medium scale wind turbines, (up to 60m hub height)	Typical sensitivity to medium scale wind turbines is ***moderate-high***: • The relatively flat landform, medium to large landscape scale, typically regular landscape pattern of arable fields and relatively low conservation interest (away from the Broads fringes) reduce sensitivity to medium scale wind turbines. • However, this is outweighed by the open, exposed and strongly rural character, human scale features such as vernacular villages and farmsteads, generally undeveloped skylines punctuated by landmark church towers, and the proximity of the eastern parts to the Broads and the AONB, which all increase sensitivity. Sensitivity is likely to be higher: • Where there is strong visibility of turbines on the skyline from within the designated landscapes (the Broads and the AONB), and where their identified special qualities (notably the undeveloped character, sense of remoteness and tranquillity) would likely be affected by the development type; and • In the vicinity of Conservation Areas (e.g. Worstead) and registered parks and gardens, and/or where this scale of turbine may compete with landmark skyline features, such as church towers.	**Moderate-High**
Small scale wind turbines, (up to 30m hub height)	Typical sensitivity to small scale wind turbines is ***moderate***: • The flat landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low conservation interest (away from the Broads fringes) reduce sensitivity to small scale wind turbines while the open, exposed and rural character, generally undeveloped skylines punctuated by historic features, and the proximity to and frequent intervisibility with the Broads increase sensitivity. Sensitivity is likely to be higher: • Where there is strong intervisibility with designated landscapes of particularly high scenic quality (the Broads and the AONB), whose identified special qualities would be affected by the development type; and • In the vicinity of Conservation Areas (e.g. Worstead), and/or where turbines may compete with landmark skyline features, such as church towers. Sensitivity is likely to be lower: • In localised areas of lower intervisibility with the designated landscapes; • In proximity to modern larger-scale human influence/development, such as modern farm complexes and large storage sheds, main roads, and industrial estates.	**Moderate**

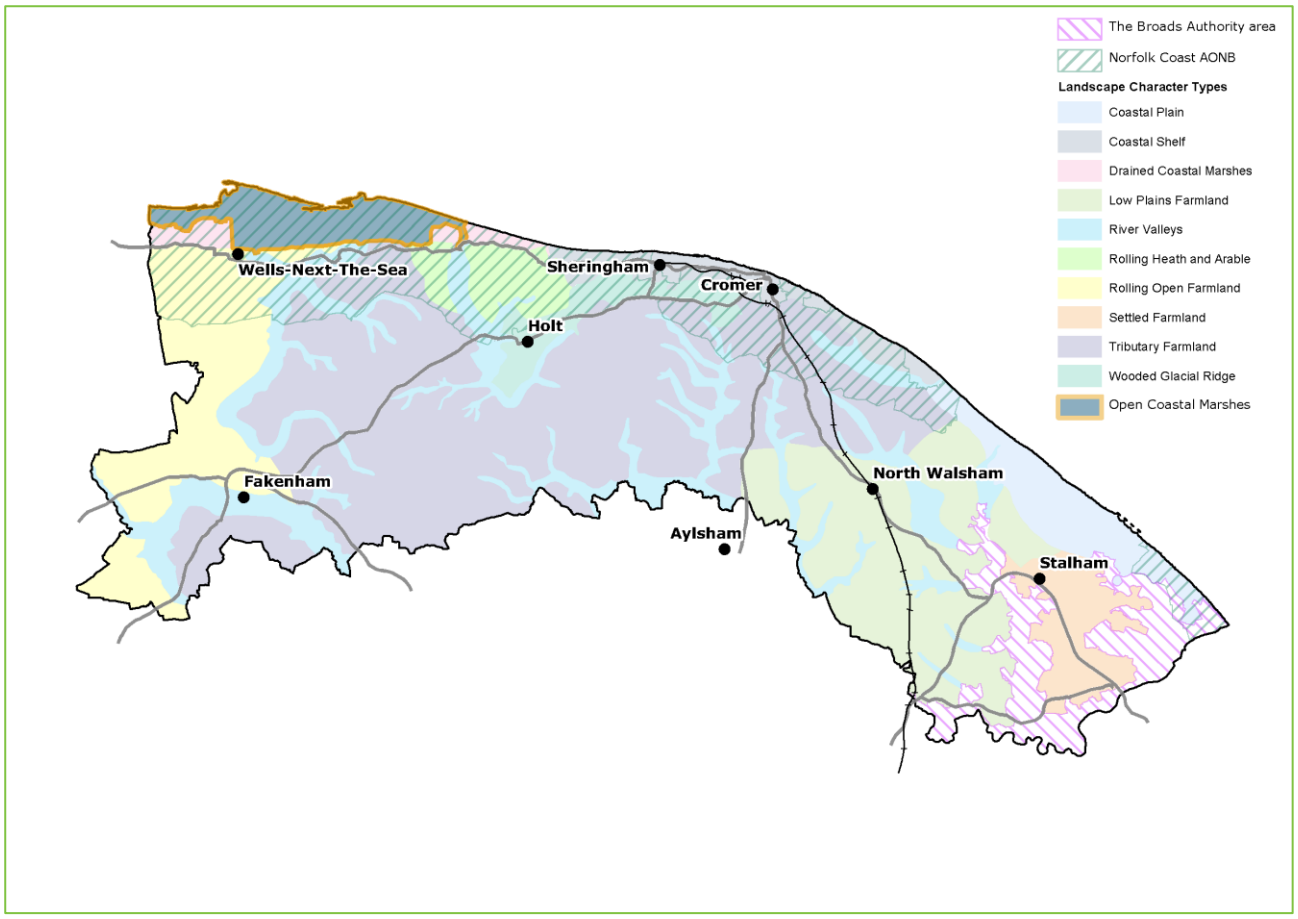
Low Plain Farmlands

Field-scale solar PV development (above 10 hectares site area)	Typical sensitivity to medium scale wind turbines is ***moderate***: • The largely flat landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low conservation interest (away from the Broads fringes) reduce sensitivity to field-scale solar PV development while the open, exposed and rural character, with limited hedgerow screening, frequent human-scale features including historic landmarks, and the proximity to the Broads, increase sensitivity. Sensitivity is likely to be particularly high: • Where intervisibility between field-scale solar PV development and the designated landscape may exist and affect its special qualities; and • In the vicinity of Conservation Areas (e.g. Worstead) Sensitivity is likely to be lower: • Where there is lower or no intervisibility with the designated landscapes; and • Where localised presence of woodland/higher hedgerows or existing modern larger-scale development/human influence may afford greater visual screening and containment of solar panels, and/or be less likely to affect rural character.	**Moderate**
Onshore cable routes for offshore wind farms (30m – 80m clearance)	Typical sensitivity to onshore cable routes is ***moderate***: • The generally flat landform and absence of visible slopes, regular landscape pattern of arable fields and relatively low prevalence of cultural heritage, wildlife and earth science designations reduce sensitivity to onshore cable routes while the open, exposed and rural character, and the proximity to the Broads increase sensitivity. Sensitivity is likely to be particularly high: • Around the Broads fringes, where naturalistic landcover is more frequent, nature conservation value is higher and special qualities of the Broads (including valued habitats, sense of remoteness and tranquillity) may be affected by proximity to onshore cable routes; and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham). Sensitivity is likely to be lower: • Within the large areas of modern arable farmland (away from the Broads fringes) of low nature conservation interest.	**Moderate**
Commercial battery storage schemes, Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	Typical sensitivity to industrial type developments is ***moderate***: • The majority of the landscape susceptibility and value criteria do not strongly influence sensitivity in either direction in relation to these development types, except the open, exposed and rural character, generally undeveloped skylines punctuated by historic features, and the proximity to and occasional intervisibility with the Broads, which increase sensitivity. This is counterbalanced by the lack of significant time depth across this predominantly modern arable landscape which reduces sensitivity. Sensitivity is likely to be higher: • In proximity to the Broads/AONB, from which views may exist of the built form associated with industrial type developments (particularly taller elements/features) within the LCT, and be likely to affect their special qualities (e.g. undeveloped character, sense of remoteness and tranquillity); and • In the vicinity of Conservation Areas (e.g. Worstead) and registered parks and gardens (e.g. Beeston Hall), and/or where such development may compete with landmark skyline features, such as church towers. Sensitivity is likely to be lower: • Where there are no views of these forms of development from the designated landscapes; and • Where localised presence of woodland/higher hedgerows or existing modern larger-scale development/human influence may afford greater visual screening and containment of built form, and/or be less likely to affect rural character.	**Moderate**

Low Plain Farmlands

Reservoirs (typical size range 2 – 5ha)	Typical sensitivity to reservoirs is ***moderate***: • The generally large, regular arable fields increase the apparent scale of the landscape, which reduces sensitivity to reservoirs as they can be more easily accommodated within single fields. However, this is counterbalanced by the flat landform and strong sense of openness, with limited hedgerow screening, which generally increases sensitivity to reservoirs, as their embankments can be less naturally integrated into the surrounding landscape, making them appear more prominent. Sensitivity is likely to be higher: • In proximity to the Broads and the AONB, from which views may exist of reservoir embankments within the LCT, and where these would be likely to affect their special qualities (e.g. undeveloped character, sense of remoteness and tranquillity); and • In the vicinity of Conservation Areas (e.g. Worstead) and registered parks and gardens. Sensitivity is likely to be lower: • Where there are no views of this form of development from the designated landscapes; and/or • Where greater variation in landform may allow reservoir embankments to be integrated more naturally into the landscape; and/or • Where the presence of woodland/higher hedgerows or existing modern larger-scale development/human influence may afford greater visual screening and containment of reservoirs, and opportunities to integrate new planting screening on embankments without adversely affecting existing landscape character.	**Moderate**

Open Coastal Marsh



Open Coastal Marsh

Baseline Landscape

Introduction to the Landscape Character Type

The Open Coastal Marshes Type is characterised by an open, low-lying and naturally dynamic coastal barrier beach system with one of the largest single areas of undrained saltmarsh in Europe. Extensive areas of saltmarsh, with characteristic creek patterns, have formed behind a protective barrier of sand and shingle bars, which in some areas have led to the formation of significant areas of dune habitat. The marine and coastal habitats form a complex mosaic of shallow seas, intertidal sand and mud flats, coastal vegetated shingle, saline lagoons, salt marsh and creeks, largely devoid of any settlement and dominated by natural dynamic processes.

All of this landscape carries the highest designations in relation to its landscape (Norfolk Coast AONB, North Norfolk Heritage Coast) and ecological value (SPA, SAC, Ramsar, SSSI, NNR). This landscape is also wholly within North Norfolk's Undeveloped Coast policy area.

Component Character Areas

There is one area of Open Coastal Marsh in North Norfolk, in the north-west of the District:

OCM1 - Wells to Morston Marshes

Key Characteristics[15]

- Flat, open landscape of saltmarshes, creeks, sand bars and mudflats
- A constantly changing natural landscape
- Holkham Meals sand dune system and pine woods
- Little human interference and absence of settlement
- Great nature conservation interest and a haven for breeding birds
- Boats are a feature, their masts prominent in the flat landscape
- Absence of roads but many footpaths and trackways
- Long, uninterrupted views

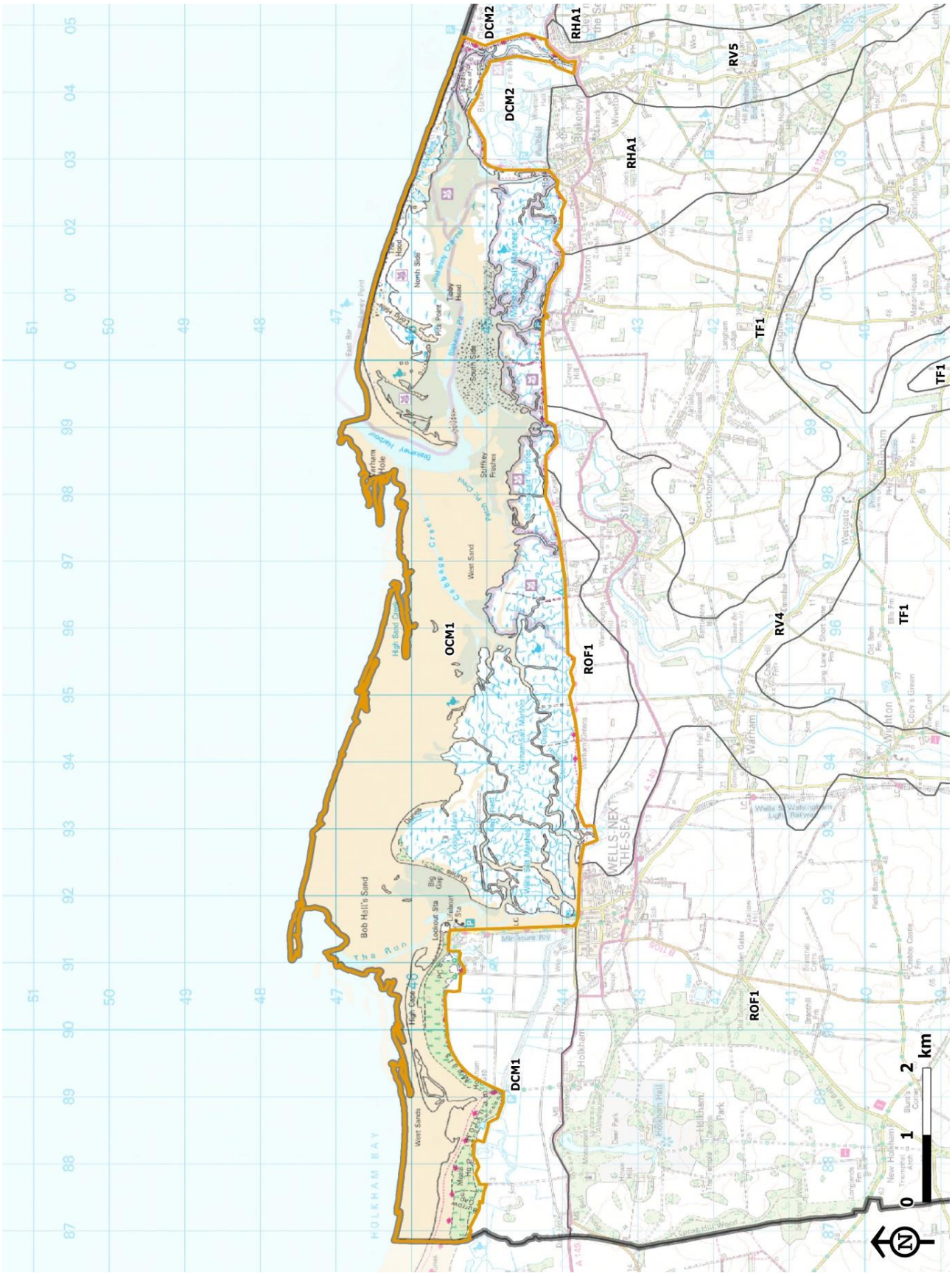
Valued features and qualities

- Natural character and nature conservation value
- Relative absence of human settlement and intervention
- The sense of openness, large skies, and quality of coastal light
- Recreational value

[15] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

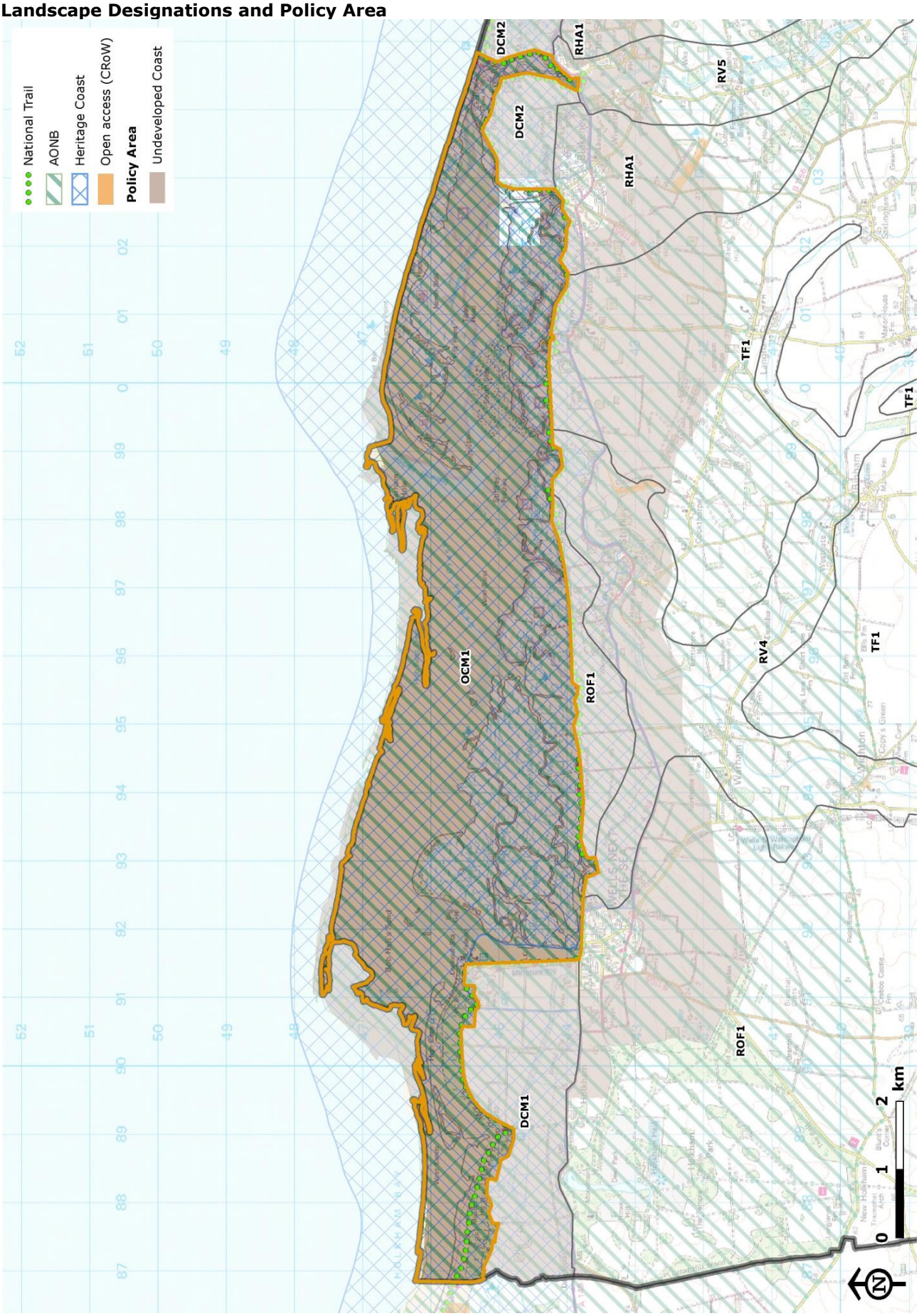
Open Coastal Marsh

Location of OCM1



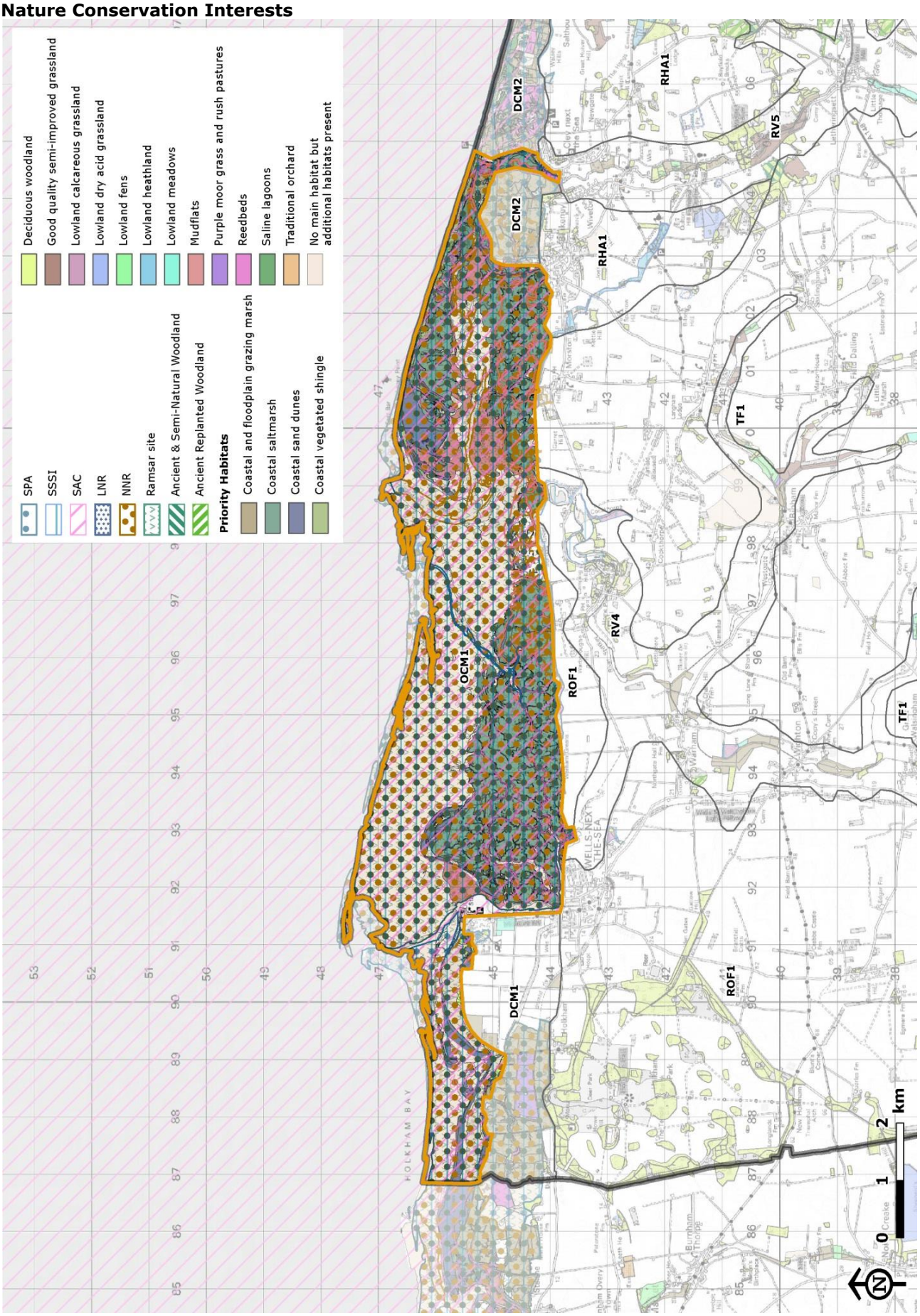
Open Coastal Marsh

Landscape Designations and Policy Area



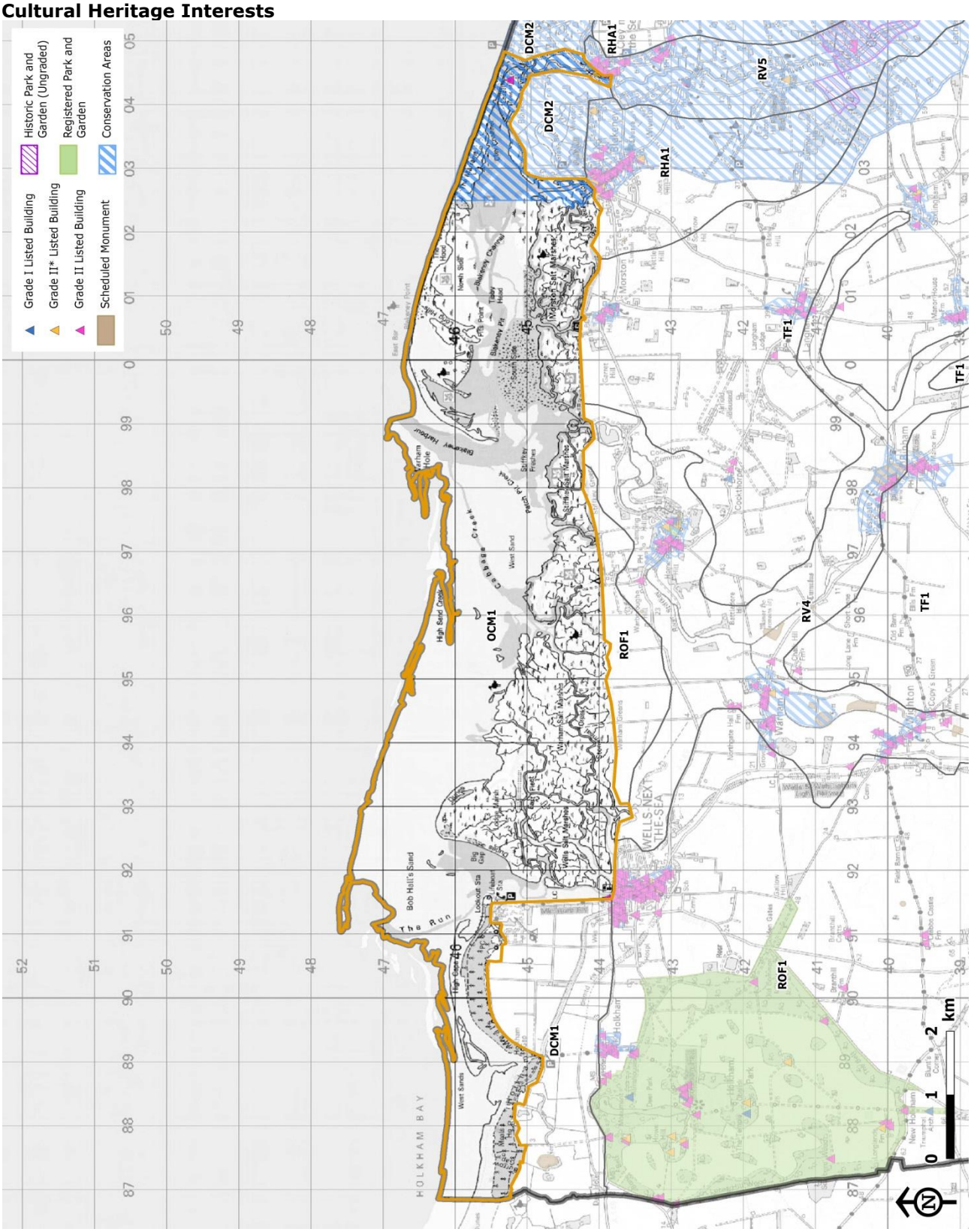
Open Coastal Marsh

Nature Conservation Interests



Open Coastal Marsh

Cultural Heritage Interests



Open Coastal Marsh

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Open Coastal Marshes LCT against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Flat but locally complex naturalistic landform with undeveloped skylines, which is intrinsic to the character of the LCT. This increases sensitivity to all development types.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Landcover	Highly naturalistic complex of salt marshes, mudflats, sand bars and dunes, which increases sensitivity to all development types.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Sense of openness/ enclosure	Landscape has a highly open and exposed character due to the combination of flat landform, low-lying vegetation and absence of development/visual screening. This increases sensitivity to all development types.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern & complexity	The uniformly flat landform, and long, uninterrupted coastal views create a large-scale, expansive landscape. However, the apparent simplicity of the landscape pattern hides some significant complexities in the mosaic of coastal habitats. Whilst the expansive landscape scale generally reduces sensitivity to the larger scale developments, such as wind turbines, this is counterbalanced by the frequently complex landscape pattern where marsh, creeks and sand bars/dunes interact.	↑	↑	↑	–	✕	↑	↑	↑	↑

Open Coastal Marsh

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	A strong sense of tranquillity, remoteness and wildness, which is intrinsic to the character of the LCT and increases sensitivity to all development types. Minimal human intervention and no settlement present. These characteristics are recognised and reinforced by the Undeveloped Coast policy area.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	Historic landscape types within the LCT are dominated by unimproved intertidal and marine marsh, which display a strong sense of time depth and historic qualities, plus the potential for preserved archaeological evidence. This increases sensitivity to all forms of development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The LCT lies wholly within the designated AONB and the defined Heritage Coast. Any of the types of development under consideration in this study have the potential to adversely affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or affecting these areas.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The high scenic quality is recognised through AONB and Heritage Coast designations, which incorporate the whole of this LCT (see above).	↑	↑	↑	↑	↑	↑	↑	↑	↑

Open Coastal Marsh

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	Representativeness: The open coastal marshes are a particularly important and representative example of this landscape type.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	Rarity: The mosaic of habitats present within the LCT is nationally rare.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	Intactness: The landscape displays a high degree of intactness, albeit within the context of constant and dynamic natural change.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	Nature conservation and cultural heritage interests Landscape is subject to a very high number of nature conservation designations, reflecting the importance and rarity of habitats and species: Ramsar; SPA; SAC; NNR; SSSI.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	Heritage assets are largely absent, reflecting the absence of human intervention and settlement. The Glaven Valley Conservation Area extends to the mouth of the River Glaven, within the LCT.	–	–	–	–	–	–	–	–	–
	Recreational value The Norfolk Coast Path National Trail runs along the southern boundary of the LCT. The area is also important for a range of other recreational activities such as bird watching, boating and organised seal watching trips.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	Literary / artistic associations There are no known famous literary/artistic associations for the Open Coastal Marshes landscape.	–	–	–	–	–	–	–	–	–

Open Coastal Marsh

Overall sensitivity to different development types

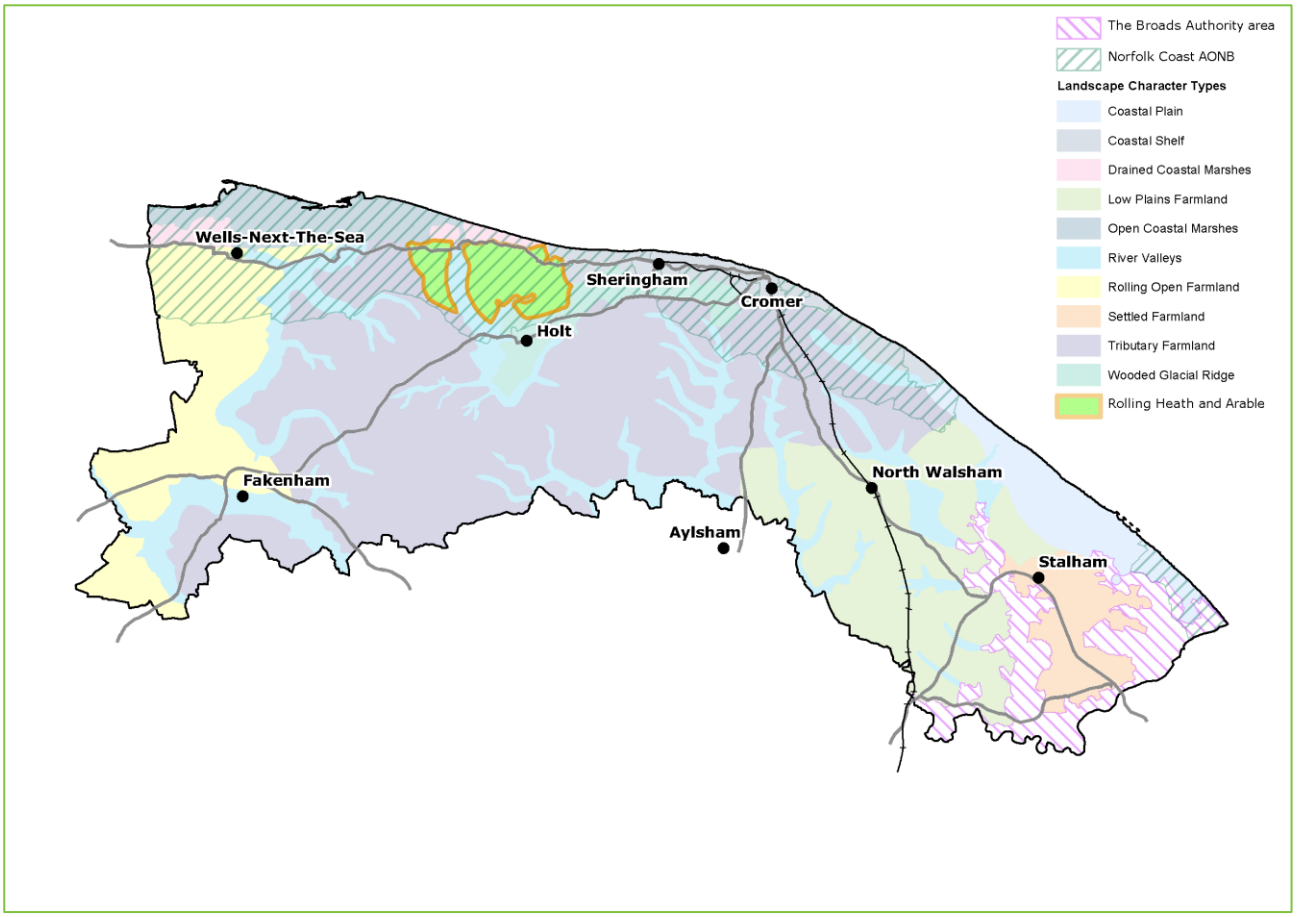
The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	This highly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered uniformly highly sensitive to large scale wind turbines. This scale of turbine sited anywhere in the LCT would be widely visible in long coastal views, and views inland, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to large scale wind turbines throughout the LCT is considered to be high.	**High**
Medium scale wind turbines, (up to 60m hub height)	This highly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered uniformly highly sensitive to medium scale wind turbines. This scale of turbine sited anywhere in the LCT would be widely visible in long coastal views, and views inland, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to medium scale wind turbines throughout the LCT is considered to be high.	**High**
Small scale wind turbines, (up to 30m hub height)	This highly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered uniformly highly sensitive to small scale wind turbines. This scale of turbine sited anywhere in the LCT would be visible in long coastal views, and views inland, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to small scale wind turbines throughout the LCT is considered to be high.	**High**
Field-scale solar PV development (above 10 hectares site area)	Whilst the generally flat landform could reduce sensitivity to low-lying field-scale solar PV development, this conceals significant complexities of landform in terms of the naturalistic habitat mosaic, interaction and subtle topographical variations of marsh, creeks, mud flats and dune systems, which increases sensitivity. In addition, the highly naturalistic landcover, open and exposed landscape, with long uninterrupted views over the open coastal marsh, including from higher coastal vantage points, general absence of screening elements, strong time depth and the broad range of valued landscape features, in addition to AONB and Heritage Coast designation, all increase sensitivity. This form of development sited anywhere in the LCT is likely to adversely affect the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to field-scale solar PV development throughout the LCT is considered to be high.	**High**
Onshore cable routes for offshore wind farms (30m – 80m clearance)	The flat yet complex landform, highly naturalistic landcover mosaic, open and exposed landscape with no screening/filtering features, long uninterrupted views over the open coastal marsh, including from higher coastal vantage points, strong time depth and the broad range of valued landscape features, in addition to AONB and Heritage Coast designation, all increase sensitivity to onshore cable routes. The introduction of onshore cable routes through the LCT is likely to adversely affect the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links	**High**

Open Coastal Marsh

Development Type	Reason for judgement	Overall Sensitivity
	between land and sea). Overall, typical sensitivity to this form of development throughout the LCT is considered to be high.	
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	This highly naturalistic, open and exposed landscape, with undeveloped skylines, strong time depth and outstanding landscape and nature conservation value, is considered uniformly highly sensitive to industrial type developments. Such developments sited anywhere in the LCT would be visible in long coastal views and views inland, including from higher vantage points, adversely affecting these inherent landscape characteristics and qualities, as well as the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to industrial type developments throughout the LCT is considered to be high.	**High**
Reservoirs (typical size range 2 – 5ha)	The flat yet complex landform, highly naturalistic landcover mosaic, open and exposed landscape with few features to help screen reservoir embankments, long uninterrupted views over the open coastal marsh, including from higher coastal vantage points, strong time depth and the broad range of valued landscape features, in addition to AONB and Heritage Coast designation, all increase sensitivity to reservoirs. The introduction of reservoirs is likely to adversely affect the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, exceptionally important coastal habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to this form of development throughout the LCT is considered to be high.	**High**

Rolling Heathland and Arable



Rolling Heathland and Arable

Baseline Landscape

Introduction to the Landscape Character Type

The Rolling Heath and Arable Type is characterised by a predominantly elevated, open rolling landscape with a strong coastal influence, and very light sandy soils which are marginal in agricultural terms. Land cover is notable for lowland heath, arable farmland, pockets of scrub and woodland, with little settlement inland from the coastal villages of Blakeney and Salthouse.

All of the Rolling Heath & Arable type lies within the Norfolk Coast AONB, and small pockets of land either side of Blakeney also fall within the North Norfolk Heritage Coast. Part of this landscape is also within North Norfolk's Undeveloped Coast policy area.

Component Character Areas

There is one area of Rolling Heath & Arable in North Norfolk, on either side of the Glaven Valley:

RHA1 – North Norfolk Rolling Heath & Arable

Key Characteristics[16]

- Distinctive glacial topography
- An open, elevated character affording long views to the coast and inland
- Extensive heathlands and woodland blocks are prominent features
- A strong rural character, with nature conservation interest and tourism land uses
- Concentration of settlement along the coast
- The Kelling Estate
- Frequent disused sand and gravel pits
- Characterful minor roads linking the busier A149 coast road and A148 Cromer to Fakenham road

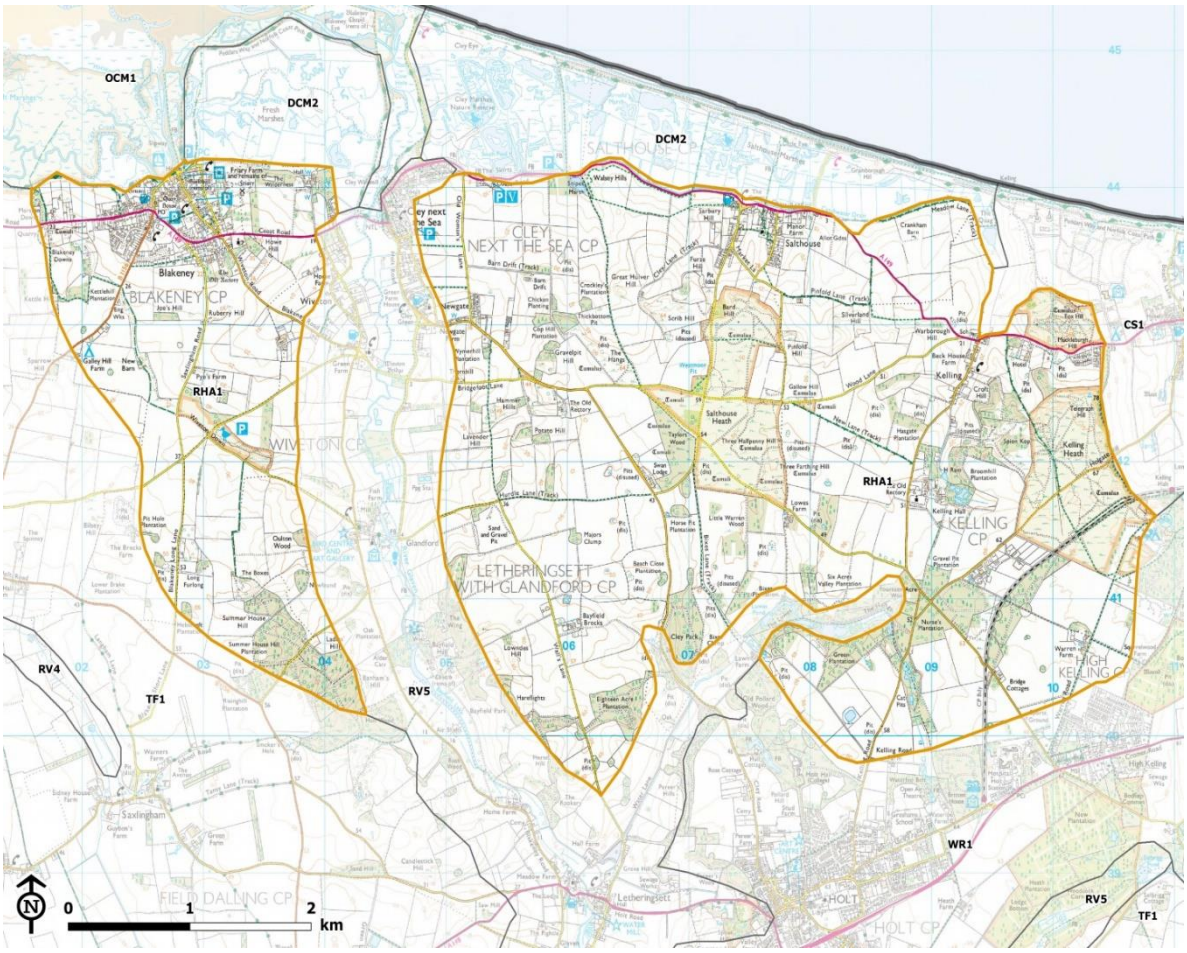
Valued features and qualities

- The Blakeney Esker and other distinctive glacial landform features
- Strong sense of traditional rurality, tranquillity and remoteness, and dark skies
- Strong and distinctive links between land and sea
- Extensive heathlands are valued for their nature conservation and recreational interest
- Rich archaeological heritage and historic environment
- Distinctive skyline features
- Recreational opportunities

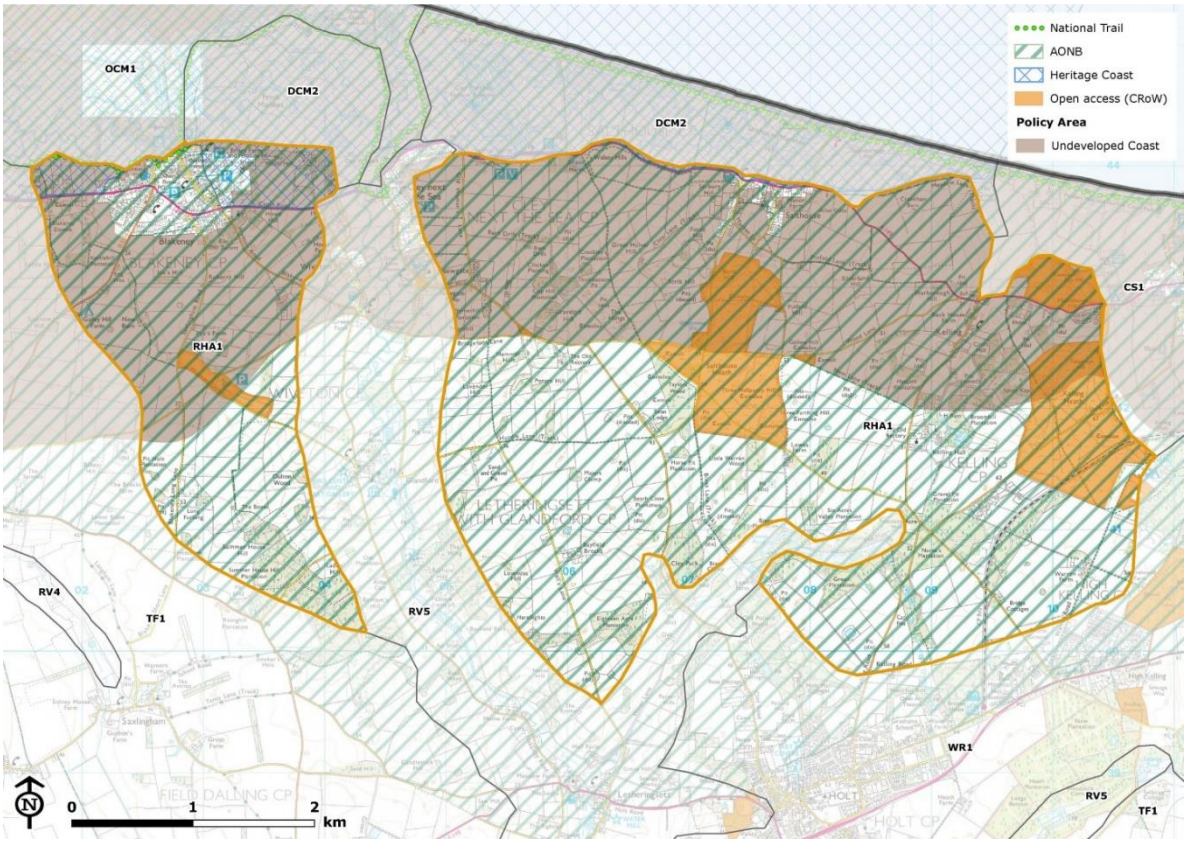
[16] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

Rolling Heathland and Arable

Location of RHA1

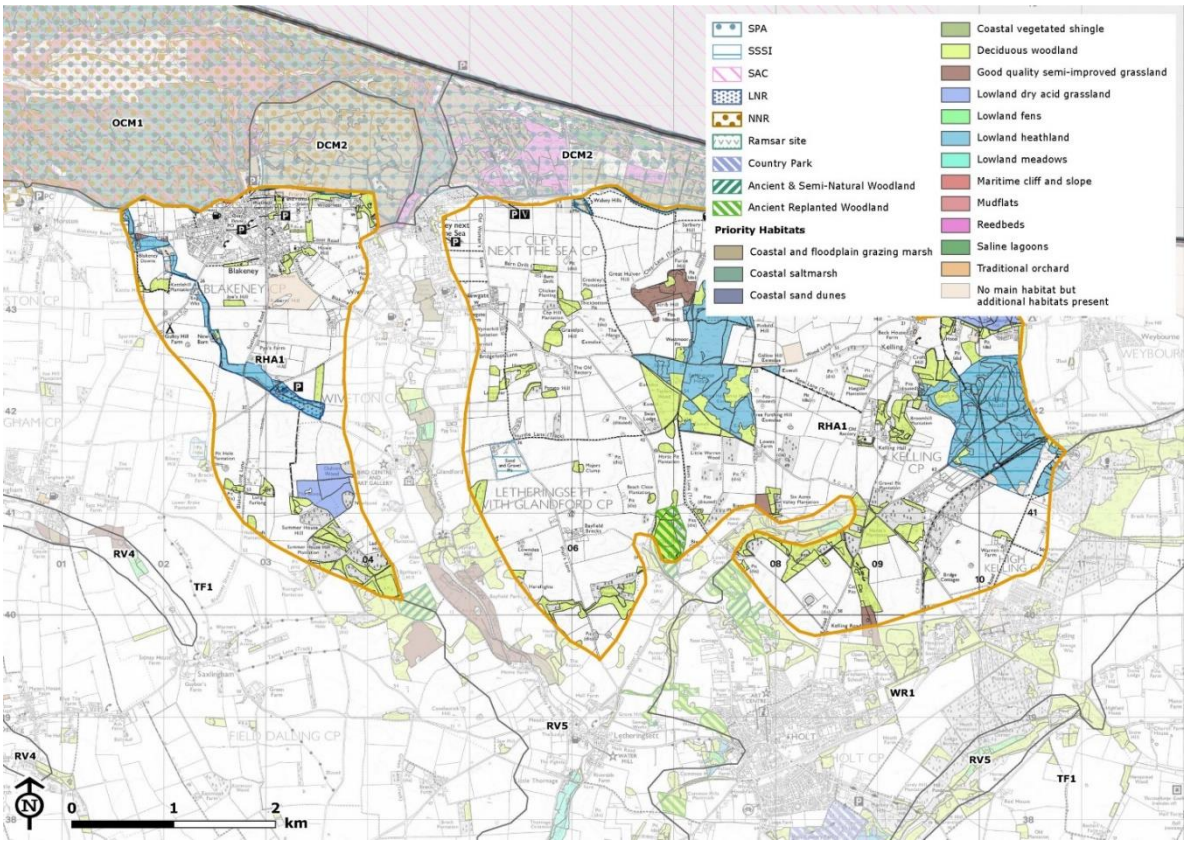


Landscape Designations and Policy Area

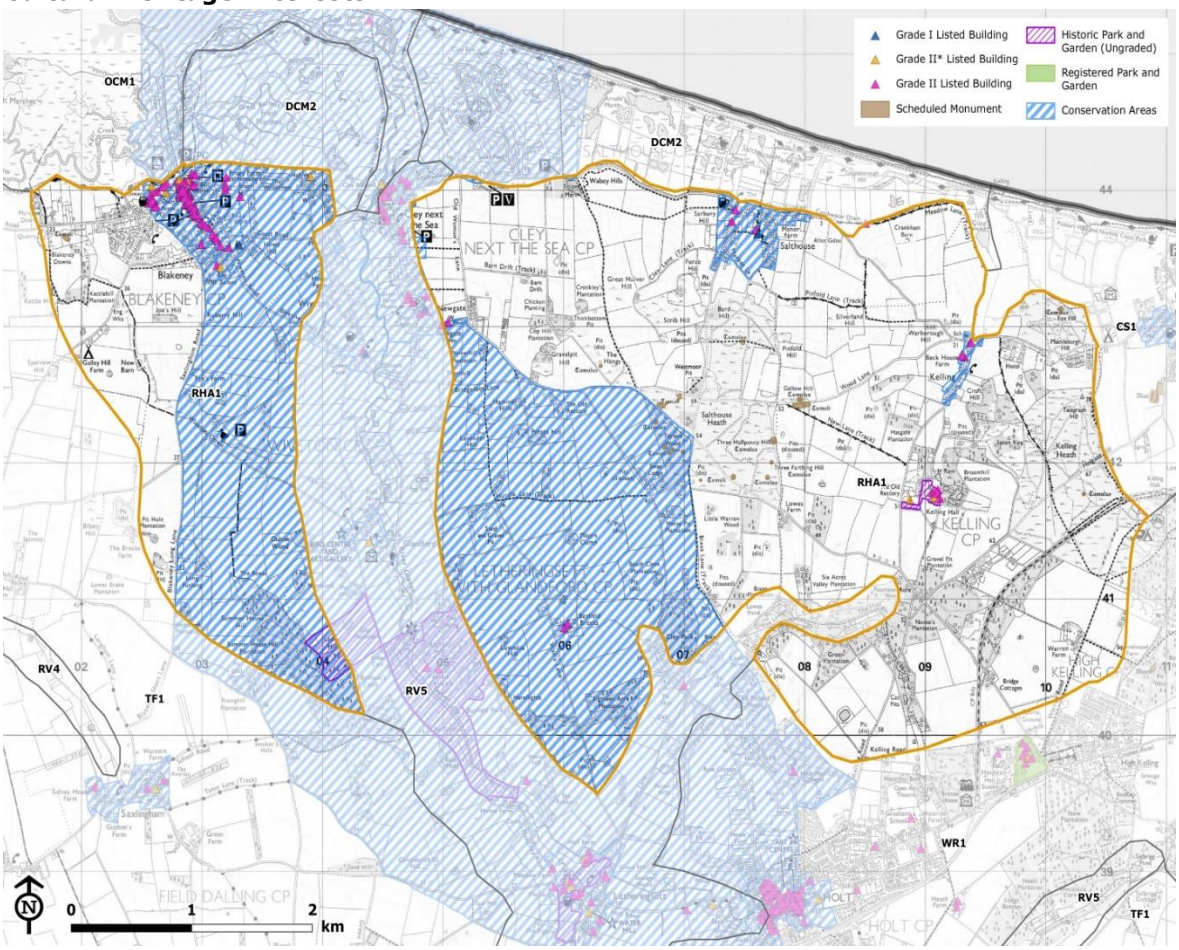


Rolling Heathland and Arable

Nature Conservation Interests



Cultural Heritage Interests



Rolling Heathland and Arable

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Rolling Heath & Arable LCT against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Gently rolling and undulating glacial landform characterised by gentle slopes from the elevated hinterland down towards the coastal marshes, with localised areas of steeper slopes such as the eastern scarp slope of Kelling Heath. Subtle small, gentle hillocks of sands and gravels and neighbouring hollows provide localised intimate areas which contribute to the variation in landscape character, shaping and enclosing views. Generally undeveloped and prominent skylines formed by arable farmland, heathland and woodland,occasionally punctuated by historic landmark features, notably church towers and the windmills at Cley and Weybourne (in neighbouring LCTs). The varied landform results in localised areas of higher and lower sensitivity to lower-lying developments such as solar farms, onshore cables and cable relay stations, battery storage schemes, AD plants and reservoirs, according to the degree of slope and landform screening, whilst the presence of historic landmark features on a largely undeveloped skyline generally increases susceptibility to taller structures such as wind turbines.	↑	↑	↑	–	–	–	–	–	–
Landcover	Predominantly arable farmland with some pig farming, coniferous shelterbelts and clumps, interspersed with more naturalistic habitats, including extensive lowland heaths at Kelling and Salthouse,	–	–	–	–	↓	–	–	–	–

Rolling Heathland and Arable

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	smaller heathy outcrops including Wiveton Downs, acid grassland at Muckleburgh hill, and deciduous/mixed woodland on the edges of the heaths and at Cley Park (designated ancient woodland). The dominant arable landcover lies in the middle of the sensitivity spectrum for the majority of development types except for onshore cable routes where sensitivity is reduced as this type of landcover is able to recover from the temporary laying phase. Areas of naturalistic landcover, such as the lowland heathland, grassland and ancient woodland, will have higher sensitivity to all development types.									
Sense of openness/ enclosure	A generally open character throughout the arable farmland areas, accentuated by the elevation and proximity to the coast, giving a feeling of spaciousness, uninterrupted views and large skies. The varied landform, with areas of steeper slopes, hillocks and hollows and presence of shelterbelts, clumps of trees, woodland and heathy scrub, hedgerow trees and higher hedges, provide localised areas of greater enclosure. The prevailing strong sense of openness and relative lack of visual screening/containment throughout the majority of the LCT increases sensitivity to any new development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern & complexity	Fields are generally geometric and of a medium to large size, which reduces sensitivity to larger scale developments such as larger wind turbines and reservoirs. However, there is variation in both size and shape, resulting in a more intricate, small scale landscape pattern particularly in proximity to settlements which increases sensitivity	–	–	–	–	×	–	–	–	–

Rolling Heathland and Arable

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	to larger scale developments. In addition, the presence of vernacular villages, narrow rural lanes and farmsteads also introduces frequent human-scale features which increase sensitivity to larger scale developments such as the larger wind energy developments or larger solar farms and reservoirs. Overall, these scale factors balance each other out for the larger scale developments (larger wind turbines, solar farms and reservoirs). The varied scale of the landscape does not influence sensitivity one way or the other for the other developments such as smaller scale turbines and cable relay stations, battery storage or AD plants.									
Sense of tranquillity/ remoteness/ rurality & level of human influence	Away from the coastal villages and coast road, a strong sense of tranquillity, remoteness and traditional rurality prevails in large expanses of quiet farmland and heathland, with little human intervention and activity to counteract this, which also results in notably dark skies. This increases sensitivity to all forms of development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	The more common historic landscape types within the LCT include relatively modern 18th, 19th and 20th century agricultural enclosures. However, there is also a variety of other types, including commons and heaths (containing numerous ancient burial mounds), ancient woodland, small areas of informal parkland and vernacular villages, all of which display a stronger time depth and historical continuity. These areas, which occur frequently across the LCT, broadly balance out the lower time depth of the remaining more modern farmland so that overall, sensitivity is not strongly influenced in either direction for any of the	–	–	–	–	–	–	–	–	–

Rolling Heathland and Arable

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	development types under consideration.									
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	All of the LCT is within the designated AONB, and much smaller coastal areas either side of Blakeney are also within the defined Heritage Coast. Any of the types of development under consideration in this study have the potential to affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or affecting these areas.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The high scenic quality is recognised through AONB and Heritage Coast designations, which together incorporate the whole of this LCT (see above). <u>Representativeness:</u> The majority of the LCT is relatively typical arable farmland, however the extensive lowland heaths are particularly notable and important examples of this habitat, which will increase sensitivity locally in these heathland areas. <u>Rarity:</u> The extensive lowland heaths are rare landscape features, which will increase sensitivity locally in these areas. The remaining predominantly arable farmland is not rare. <u>Intactness:</u> Intactness of the landscape has been adversely affected by 20th century intensive agriculture and associated	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –

Rolling Heathland and Arable

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	hedgerow removals, coupled with areas where hedgerows have not been maintained. However, areas of new/recent hedgerow plantings also exist, and the Type contains some of the most intact areas of lowland heath in Norfolk (with reversion of farmland to heathland being encouraged in other areas), and a number of relatively intact historic villages. These balance each other out to a neutral influence on sensitivity (although care will be needed in siting and design). <u>Nature conservation & cultural heritage interests:</u> Heritage assets are focussed in and around the settlements of Blakeney, Salthouse and Kelling (Conservation Areas and clusters of listed buildings). In addition, the Glaven Valley Conservation Area encompasses an extensive area of landscape within this LCT, beyond the defined Glaven River Valley LCT (RV5), and there are numerous Scheduled Monuments dotted across the landscape, in the form of ancient burial mounds (tumuli). Nature conservation designations within the LCT are primarily associated with the discrete areas of lowland heath (Kelling Heath and Wiveton Downs are designated as SSSIs, whilst Wiveton Downs is also a Local Nature Reserve). Salthouse Heath is a County Wildlife Site. Additionally, Cley Park, in the south of the LCT, is designated as an area of ancient woodland. Sensitivity will be increased to all forms of development within or otherwise affecting these areas; however, in the remainder of the LCT, sensitivity is not strongly influenced in either direction.	↑	↑	↑	↑	↑	↑	↑	↑	↑

Rolling Heathland and Arable

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	<u>Recreational value:</u> The LCT includes some of the District's largest areas of Open Access Land, focused on the heathlands, and several PRoWs cross the LCT, including a short section of the Norfolk Coast Path along the coastline at Blakeney. Blakeney is also a hub for boat trips and seal watching trips, and the two Dark Sky Discovery Sites provide a notable and rare recreational resource. <u>Literary / artistic associations:</u> There are no known famous literary/artistic associations with this landscape character type.	↑ –	↑ –	↑ –	↑ –	↑ –	↑ –	↑ –	↑ –	↑ –

Rolling Heathland and Arable

Overall sensitivity to different development types

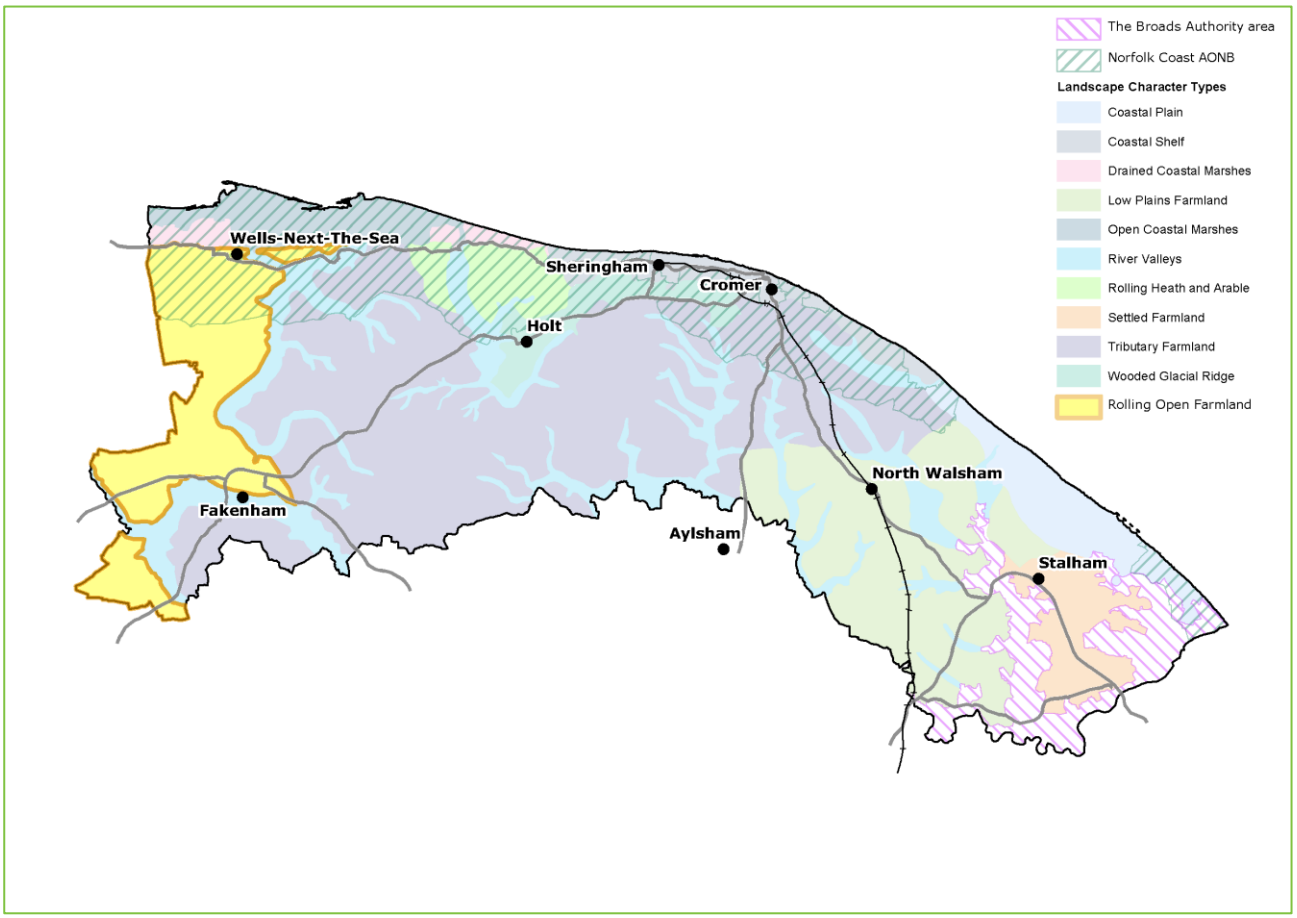
The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	Although the gently rolling and undulating landform, relatively large landscape scale and typically regular landscape pattern of arable fields might reduce sensitivity to large scale wind turbines in some situations, in this case the open, exposed and strongly rural character, prominent and undeveloped skylines, high scenic quality and value of the landscape which is recognised through AONB designation (particularly its special qualities of undeveloped coastal character, important lowland heath habitats, strong sense of remoteness and tranquillity, dark skies and distinctive links between land and sea), ensure the highest level of sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be high. In addition to the above, the Conservation Areas (Glaven Valley, Salthouse and Kelling), and their associated clusters of listed buildings, plus other isolated listed buildings such as those at Kelling Hall, have additional cultural heritage sensitivities.	**High**
Medium scale wind turbines, (up to 60m hub height)	Although the gently rolling and undulating landform, relatively large landscape scale and typically regular landscape pattern of arable fields might reduce sensitivity to medium scale wind turbines in some situations, in this case the open, exposed and strongly rural character, prominent and undeveloped skylines, high scenic quality and value of the landscape which is recognised through AONB designation (particularly its special qualities of undeveloped coastal character, important lowland heath habitats, strong sense of remoteness and tranquillity, dark skies and distinctive links between land and sea), ensure the highest level of sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be high. In addition to the above, the Conservation Areas (Glaven Valley, Salthouse and Kelling), and their associated clusters of listed buildings, plus other isolated listed buildings such as those at Kelling Hall, have additional cultural heritage sensitivities.	**High**
Small scale wind turbines, (up to 30m hub height)	Although the gently rolling and undulating landform, relatively large landscape scale, typically regular landscape pattern of arable fields and areas of localised screening provided by landform and woodland/trees might reduce sensitivity to small scale wind turbines in some situations, this is counterbalanced by the open, exposed and strongly rural character, prominent and undeveloped skylines, high scenic quality and value of the landscape which is recognised through AONB designation (particularly its special qualities of undeveloped coastal character, important lowland heath habitats, strong sense of remoteness and tranquillity, dark skies and distinctive links between land and sea), which increase sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be high. In addition to the above, the Conservation Areas (Glaven Valley, Salthouse and Kelling), and their associated clusters of listed buildings, plus other isolated listed buildings such as those at Kelling Hall, have additional cultural heritage sensitivities.	**High**
Field-scale solar PV development (above 10 hectares site area)	Although the gently rolling and undulating landform, relatively large landscape scale, typically regular landscape pattern of arable fields and areas of localised screening provided by landform and woodland/trees might reduce sensitivity to field-scale solar PV development in some situations, this is outweighed by the open, exposed and strongly rural character, with many areas of visually prominent slopes and undeveloped skylines, high scenic quality and value of the landscape which is recognised through AONB designation (particularly its special qualities of undeveloped coastal character, important lowland heath habitats, strong sense of remoteness and tranquillity, dark skies and distinctive links between land and sea), which all increase sensitivity. Therefore, the presence of PV panels could conflict with these undeveloped and naturalistic qualities of the AONB, and typical sensitivity to this form of development is considered to be high. See guidance for more information.	**High**

Rolling Heathland and Arable

	In addition to the above, the Conservation Areas (Glaven Valley, Salthouse and Kelling), and their associated clusters of listed buildings, plus other isolated listed buildings such as those at Kelling Hall, have additional cultural heritage sensitivities.	
Onshore cable routes for offshore wind farms (30m – 80m clearance)	The predominant landcover of arable fields reduces sensitivity to onshore cable routes, as this is able to recover more quickly from the temporary cable laying phase. However, this is outweighed by the presence of many visually prominent slopes and undeveloped skylines, the exposed and strongly rural character with long uninterrupted views, vernacular settlements, cultural heritage and nature conservation designations / naturalistic landcover (in particular the extensive and important lowland heathlands), and high scenic quality and value of the landscape which is recognised through AONB designation (particularly its special qualities of undeveloped coastal character, important lowland heath habitats, strong sense of remoteness and tranquillity, dark skies and distinctive links between land and sea), which all increase sensitivity. Therefore, cable laying could conflict with these undeveloped and naturalistic qualities of the AONB (for a temporary period), and typical sensitivity to this form of development is considered to be moderate-high. See guidance for more information. In addition to the above, the Conservation Areas (Glaven Valley, Salthouse and Kelling), and their associated clusters of listed buildings, plus other isolated listed buildings such as those at Kelling Hall, have additional cultural heritage sensitivities.	**Moderate-High**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	Although the gently rolling and undulating landform, relatively large landscape scale, typically regular landscape pattern of arable fields and areas of localised screening provided by landform and woodland/trees might reduce sensitivity to industrial type development in some situations, this is outweighed by the predominantly open, exposed and strongly rural character, with many areas of visually prominent slopes and undeveloped skylines, high scenic quality and value of the landscape which is recognised through AONB designation (particularly its special qualities of undeveloped coastal character, important lowland heath habitats, strong sense of remoteness and tranquillity, dark skies and distinctive links between land and sea), which all increase sensitivity. Therefore, the presence of industrial type developments could conflict with these undeveloped and naturalistic qualities of the AONB, and typical sensitivity to this form of development is considered to be high. See guidance for more information. In addition to the above, the Conservation Areas (Glaven Valley, Salthouse and Kelling), and their associated clusters of listed buildings, plus other isolated listed buildings such as those at Kelling Hall, have additional cultural heritage sensitivities.	**High**
Reservoirs (typical size range 2 – 5ha)	The gently rolling/undulating landform provides localised areas of natural bowls which could accommodate reservoirs with less land modelling. In addition, the relatively large landscape scale and typically regular landscape pattern of arable fields also reduce sensitivity to reservoir development. However, this is counterbalanced by the predominantly open, exposed and strongly rural character, with areas of visually prominent slopes and undeveloped skylines, and limited opportunities for localised screening, which increase sensitivity. The introduction of reservoirs is likely to adversely affect the nationally valued scenic qualities and natural beauty of the AONB (in particular its undeveloped coastal character, remoteness and tranquillity, important lowland heath habitats and strong and distinctive visual links between land and sea). Overall, typical sensitivity to this type of development is considered to be moderate-high. Localised areas of lower sensitivity include areas of lower lying land in natural bowls where less land modelling would be required, or in more enclosed areas where existing mature shelter belts and woodland blocks may afford greater visual screening and containment of reservoirs. Localised areas of higher sensitivity relate to the most open, flat and exposed areas of farmland, particularly in closer proximity to the coast, and the heathlands. In addition to the above, the Conservation Areas (Glaven Valley, Salthouse and Kelling), and their associated clusters of listed buildings, plus other isolated listed buildings such as those at Kelling Hall, have additional cultural heritage sensitivities.	**Moderate-High**

Rolling Open Farmland



Rolling Open Farmland

Baseline Landscape

Introduction to the Landscape Character Type

The Rolling Open Farmland Type extends from the coast to the southern edge of the District and is characterised by high level open, gently rolling arable farmland with relatively large, geometric fields enclosed by hedgerows. With the exception of the Holkham estate there is limited woodland cover and relatively few field/hedgerow trees. Flatter plateau areas are associated with former airfield sites. Settlement is focused principally on river valleys that pass through and alongside the Rolling Open Farmland – the Stiffkey Valley to the east and the Wensum Valley which cuts through the southern part of the area – which are assessed as a separate Landscape Type. There is little habitation within the Type other than farmsteads, small hamlets, development associated with airfields and two towns: Wells-next-the-Sea and Fakenham.

The northern part of the LCT falls within the Norfolk Coast AONB and the area that surrounds Wells-Next-the-Sea also forms part of North Norfolk's Undeveloped Coast policy area. The North Norfolk Heritage Coast lies outside the LCT but adjoins its northern boundary.

Component Character Areas

There is one area of Rolling Open Farmland in North Norfolk, in the west of the District:

ROF1 - Holkham to Raynham

Key Characteristics[17]

- Gently rolling terrain sloping down to river valleys and the coast
- Arable land use with large, geometric fields and low hedges
- Relatively low level of woodland cover
- Holkham Hall parkland
- Former airfields are prominent features
- An open, homogeneous character with expansive views
- Sparse, strongly nucleated settlement pattern
- Modern development at Fakenham
- Wells-next-the-Sea is a major tourist attraction
- Limited habitat diversity

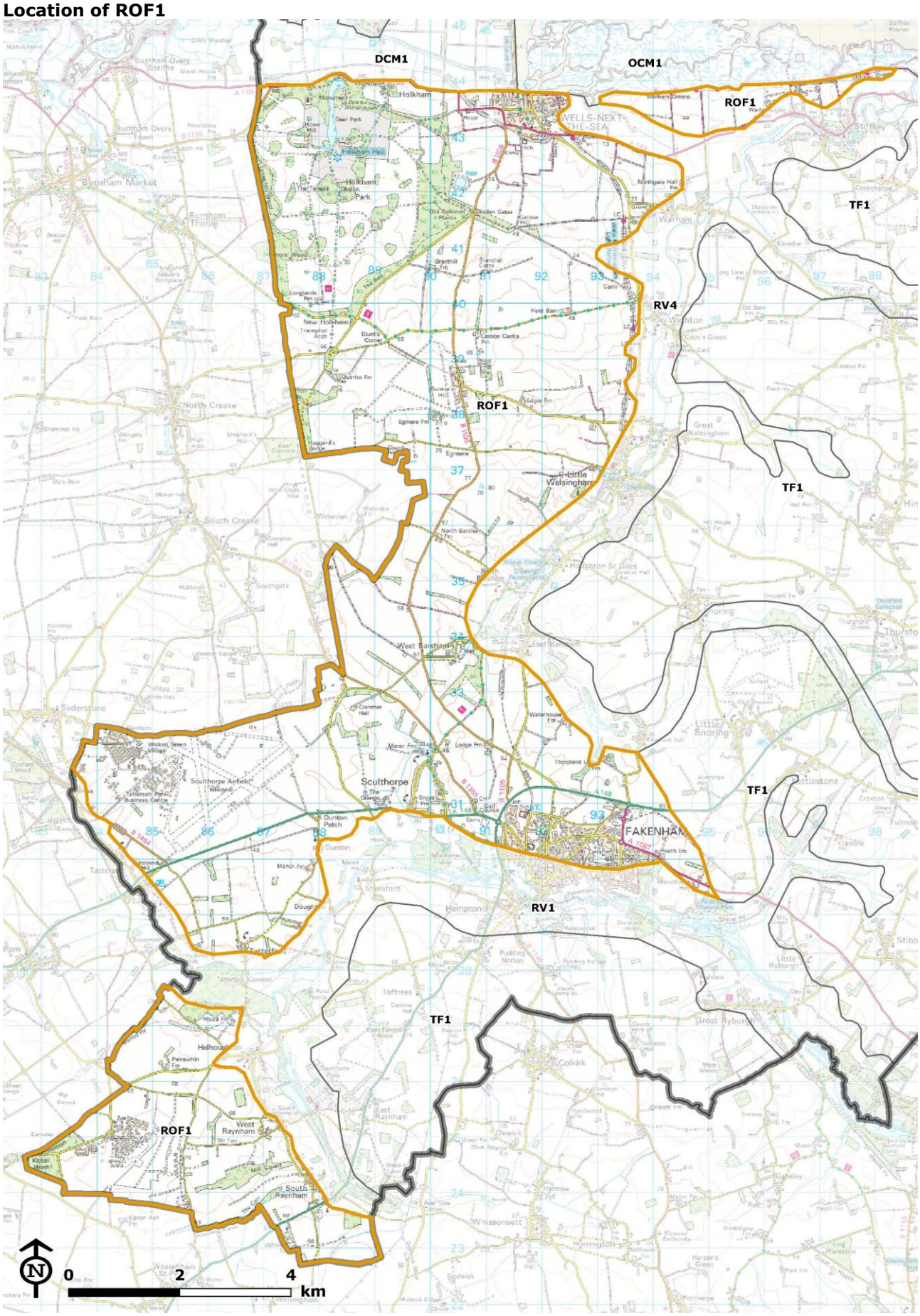
Valued features and qualities

- Open, expansive, rural character with a sense of remoteness and tranquillity
- Undeveloped coastal character
- Holkham Park
- Managed, ordered character
- Remnant semi-natural habitats
- Other valued features include the abandoned medieval village of Egmere (a Scheduled Monument), with its ruined church; the historic interest of the former airfields, and views of Fakenham church tower from across the Wensum Valley.

[17] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

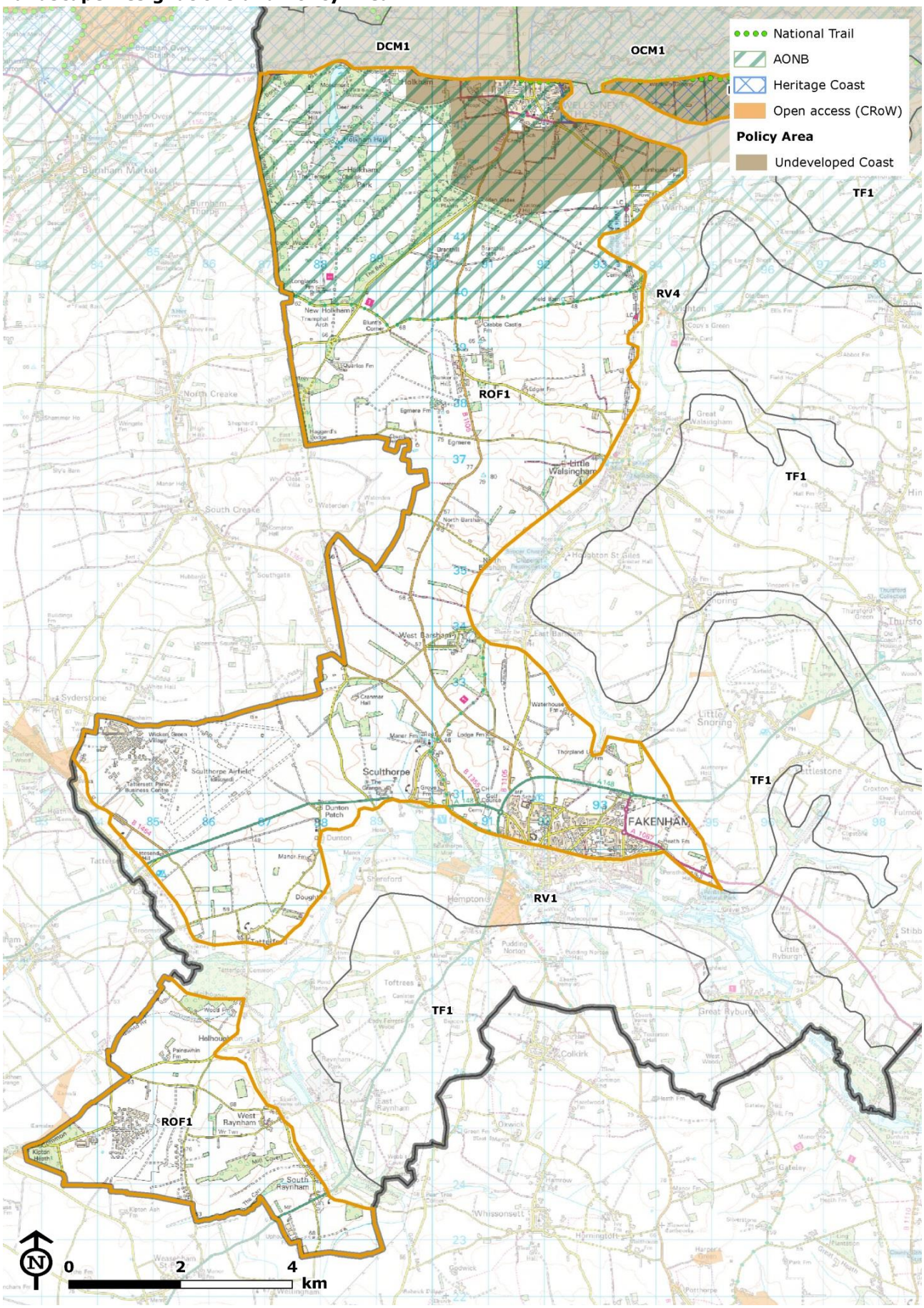
Rolling Open Farmland

Location of ROF1



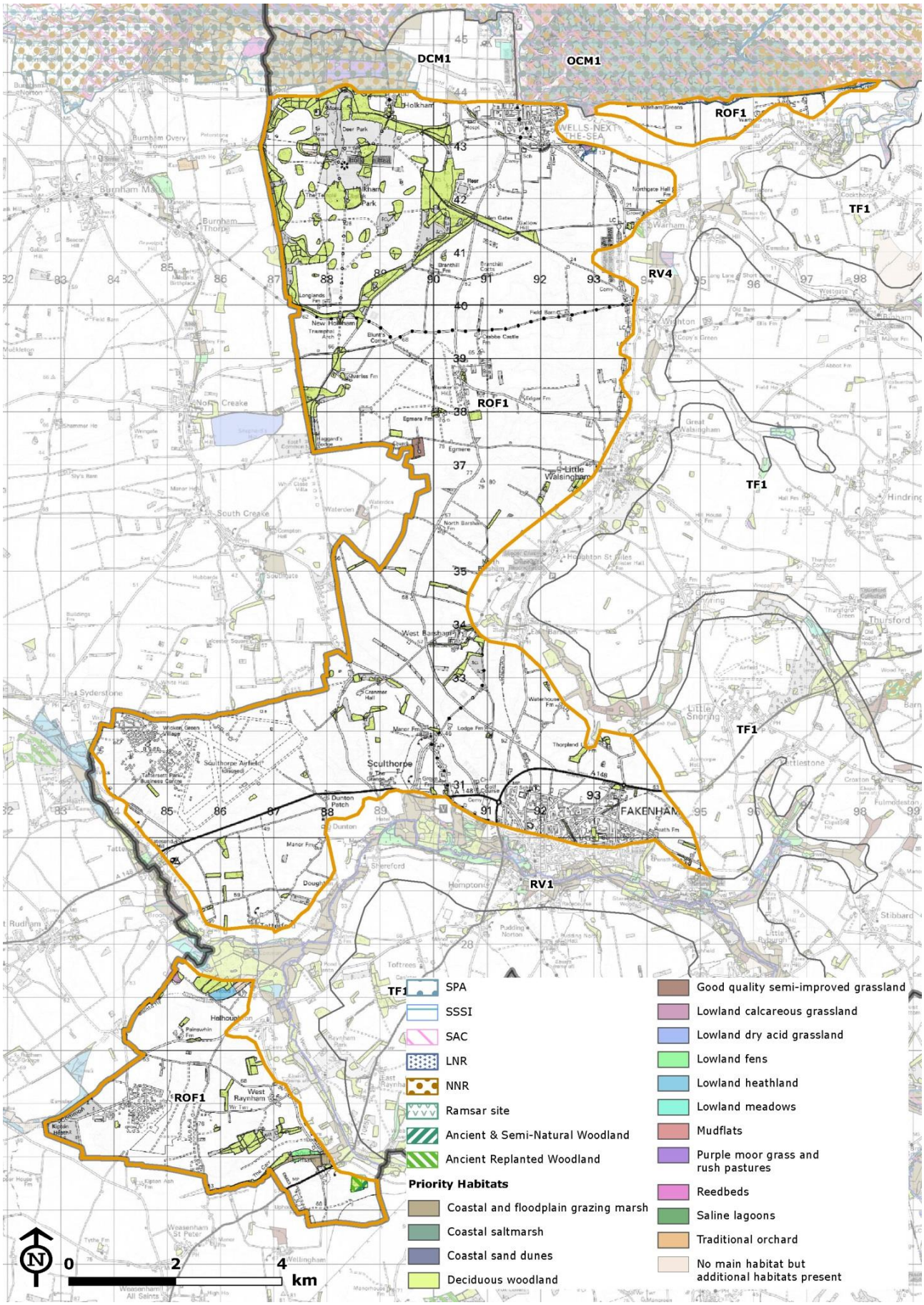
Rolling Open Farmland

Landscape Designations and Policy Area



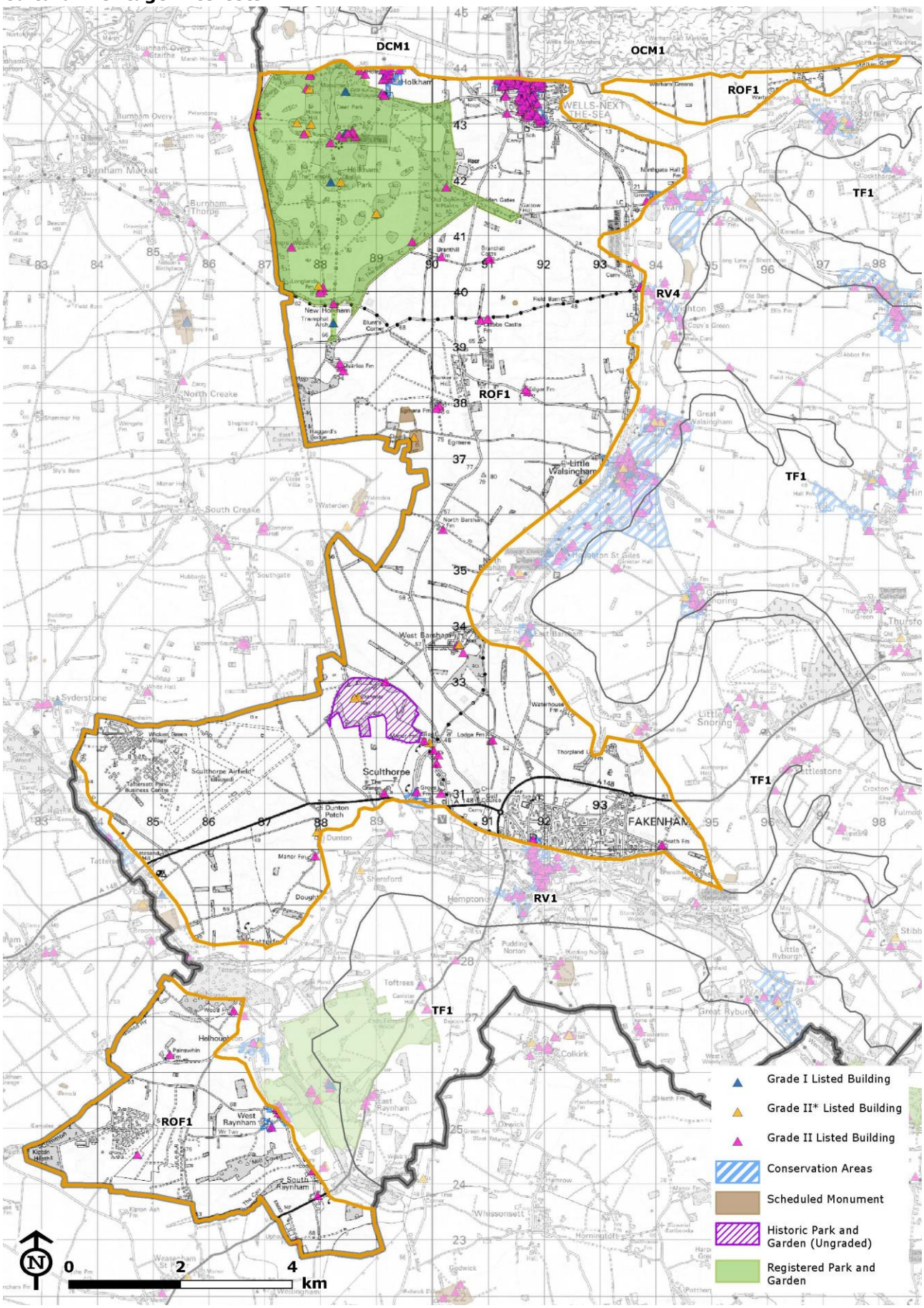
Rolling Open Farmland

Nature Conservation Interests



Rolling Open Farmland

Cultural Heritage Interests



Rolling Open Farmland

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Rolling Open Farmland LCT against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Gently rolling terrain with an elevated domed plateau sloping down to river valleys and generally undeveloped skylines occasionally punctuated by historic landmark features, such as church towers. The undeveloped skylines and the steeper slopes, particularly those on the boundaries with the River Valleys LCT, generally increase susceptibility to all development types.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Landcover	Predominantly arable farmland with low level of woodland relative to other LCTs. Woodland cover is higher around Holkham Park and in the far south around West Raynham. The registered parkland at Holkham is in contrast to the typical arable landcover of the LCT and will increase susceptibility to all development types in that area.	–	–	–	–	↓	–	–	–	–
Sense of openness/ enclosure	Landscape has a very open and exposed character due to the combination of arable landcover and lack of woodland, large field sizes, low hedges and gently sloping elevated plateau landform. This lack of visual screening/containment generally increases susceptibility to most types of new development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features),	Typically a large scale landscape due to large, geometric fields, low hedges and sparse settlement lending an ordered, simple and regulated character. This scale, simplicity and consistency of	↓	↓	↓	↓	×	–	–	–	↓

Rolling Open Farmland

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
landscape pattern & complexity	landscape pattern generally reduces susceptibility to the more expansive and larger scale developments. It has less influence on the smaller scale developments.									
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	Strong sense of tranquillity, remoteness and traditional rurality in large areas of quiet farmland, which reduces in the vicinity of the few settlements (particularly Fakenham and to a lesser extent Wells) and main roads (in particular the A149 coast road and in busy tourist seasons). This general absence of modern human influence and development on the landscape increases susceptibility to all types of built form, relative to more 'developed' landscapes.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	Historic landscape types within the LCT are dominated by extensive 18th – 19th century enclosures, together with 20th century agriculture and areas of informal parkland associated with historic estates (Holkham Hall, Cranmer Hall and West Barsham Hall). This typically does not strongly influence susceptibility, except in the vicinity of the historic parklands, where susceptibility will be locally increased to all development types.	–	–	–	–	–	–	–	–	–
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The coastal part of this LCT falls within the designated Norfolk Coast AONB. The presence of the AONB increases the overall sensitivity of the landscape, as generally all forms of development under consideration are likely to affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea.	↑	↑	↑	↑	↑	↑	↑	↑	↑

Rolling Open Farmland

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Presence of landscape designations and extent to which their special qualities could be affected	Outside the AONB the landscape is generally undesignated, but built development outside the AONB could still affect special qualities within it, including the sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea.									
Other indicators of value	<u>High scenic quality:</u> Extensive areas outside the designated landscapes display a degree of scenic quality by virtue of the attractive pattern of undeveloped rolling open farmland, and the presence of long, uninterrupted views. <u>Representativeness:</u> The majority of the LCT is relatively typical arable farmland, although Holkam Park is a particularly important example of an historic park which increases sensitivity in proximity to this landscape feature. <u>Rarity:</u> This area of arable farmland is not a particularly rare landscape type. <u>Intactness:</u> Typically high intactness of post-18th century arable farmland with maintained hedgerow boundaries. <u>Nature conservation & cultural heritage interests:</u> Overall, conservation interests are relatively limited in this arable landscape, and concentrated in small areas where their presence increases sensitivity locally rather than across the whole area. For example, key heritage interests include the extensive Grade I Registered Park & Garden of Holkham Hall within the northern part of the LCT, which contains numerous listed buildings (also within the AONB), Conservation Areas at Holkham, Wells, Sculthorpe and West Raynham (also containing clusters of listed buildings), and Scheduled Monuments at Egmere and Crabb's									

Rolling Open Farmland

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	Castle. Nature conservation designations are limited to the small Wells Chalk Pit SSSI, noted for its rich orchid populations, and an isolated area of ancient woodland around South Raynham. Recreational value: The Norfolk Coast Path National Trail runs along part of the northern boundary of the LCT, increasing sensitivity locally. The majority of the area has local footpaths but has not greater recreational value than typical countryside areas. Literary / artistic associations: There are no known associations to the Rolling Open Farmland landscape.	↓	↓	↓	↓	↓	↓	↓	↓	↓
		–	–	–	–	–	–	–	–	–

NB Airfields within ROF are specifically excluded from the sensitivity assessment at Landscape Character Type level, as these are subject to their own individual assessments within Appendix 2.

Rolling Open Farmland

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	AONB	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	**OUT**	Although the gently rolling landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low density of wildlife, earth science or cultural designations might reduce sensitivity to large scale wind turbines in some situations, in this case the open, elevated, exposed and strongly rural character, prominent and undeveloped skylines, and relatively high scenic quality with long uninterrupted views all increase sensitivity to the extent that overall, typical sensitivity to this scale of turbine is considered to be high.	**High**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, in addition the AONB is nationally valued for its scenic qualities and natural beauty which ensure the highest level of sensitivity. The Grade I Registered parkland at Holkham Hall and the Conservation Areas of Holkham and Wells-next-the-Sea (and their associated clusters of listed buildings) also have sensitivities associated with them.	**High**
Medium scale wind turbines, (up to 60m hub height)	**OUT**	The gently rolling landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low density of wildlife, earth science or cultural designations reduce sensitivity to medium scale wind turbines. However, the open, exposed and strongly rural character, prominent and undeveloped skylines, and relatively high scenic quality with long uninterrupted views, all increase sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be moderate-high. Localised areas of higher sensitivity relate to the Scheduled Monuments at Egmere and Crabb's Castle, Sculthorpe and West Raynham Conservation Areas which have their own specific cultural heritage sensitivities, and areas that are visible from the adjacent River Valleys LCT and close to the AONB, or where a development could affect the special qualities of the AONB.	**Moderate-High**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased further due to the nationally valued scenic qualities and natural beauty of the landscape. Overall, typical sensitivity to this scale of turbine is considered to be high in the area of ROF that falls within the AONB. In addition, the Grade I Registered parkland at Holkham Hall, the Conservation Areas of Holkham and Wells-next-the-Sea (and their associated clusters of listed buildings) have additional cultural heritage sensitivities.	**High**
Small scale wind turbines, (up to 30m hub height)	**OUT**	The gently rolling landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low density of wildlife, earth science or cultural designations reduce sensitivity to small scale wind turbines. However, the open, exposed and strongly rural character, prominent and undeveloped skylines, and relatively high scenic quality with long uninterrupted views, all increase sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be moderate. Localised areas of lower sensitivity include those where the strongly rural character diminishes and modern human influence is greater; notably around parts of the urban fringe of Fakenham, which has a busier character and larger-scale development is also visible on the skyline. Localised areas of higher sensitivity relate to the Scheduled Monuments at Egmere and Crabb's Castle, Sculthorpe and West Raynham Conservation Areas, areas close to landmark skyline features such as the church towers of St Mary and All Saints, Sculthorpe and St Peter, Dunton, and areas that are visible from the adjacent River Valleys LCT.	**Moderate**

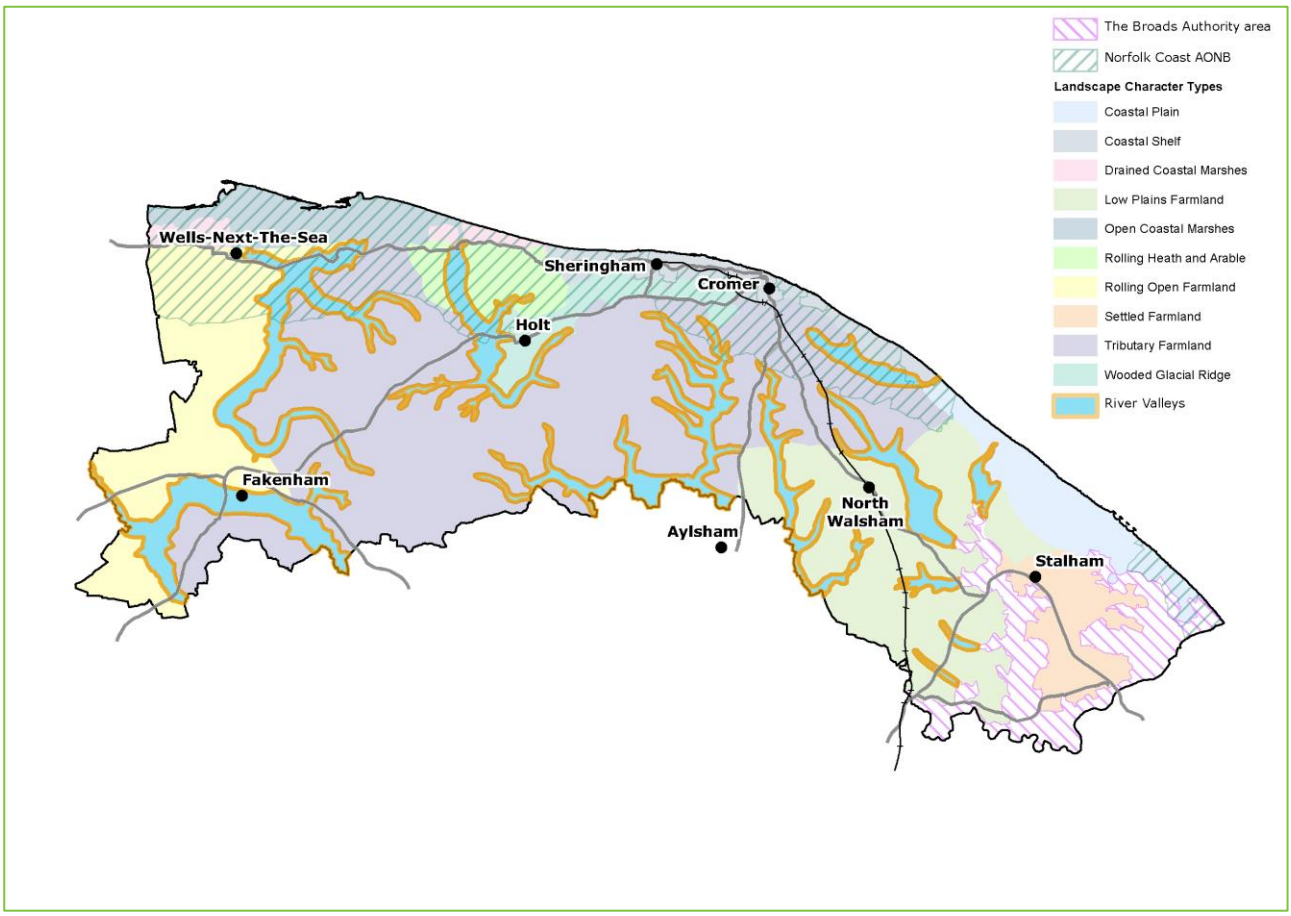
Rolling Open Farmland

	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased further due to the nationally valued scenic qualities and natural beauty associated with the AONB. Overall, typical sensitivity to this scale of turbine is considered to be high in the area of ROF that falls within the AONB, due to proximity to the exposed coastline where the visibility of even small scale turbines on the skyline would be extensive, affecting its special qualities including the undeveloped coastal character, distinctive visual links between land and sea, and the sense of remoteness, tranquillity and wildness. In addition to the above, the Grade I Registered parkland at Holkham Hall, the Conservation Areas of Holkham and Wells-next-the-Sea (and their associated clusters of listed buildings) have additional cultural heritage sensitivities.	**High**
Field-scale solar PV development (above 10 hectares site area)	**OUT**	The gently rolling landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low density of wildlife, earth science or cultural designations reduce sensitivity to field-scale solar PV development. However, the open, exposed and strongly rural character, with areas of visually prominent slopes and undeveloped skylines, low managed hedgerow field boundaries affording limited opportunities for localised screening, and relatively high scenic quality, all increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate-high and any development would need to be site with care. Localised areas of lower sensitivity include those where flatter landform in combination with existing mature linear shelter belts, woodland blocks and higher hedgerows may afford greater visual screening and containment of solar panels.	**Moderate-High**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased further due to the nationally valued scenic qualities and natural beauty of the landscape (the presence of PV panels could conflict with the undeveloped and naturalistic qualities of the AONB). Overall, typical sensitivity to this scale of turbine is considered to be high in the area of ROF that falls within the AONB. In addition, the Grade I Registered parkland at Holkham Hall, the Conservation Areas of Holkham and Wells-next-the-Sea (and their associated clusters of listed buildings) have additional cultural heritage sensitivities.	**High**
Onshore cable routes for offshore wind farms (30m – 80m clearance)	**OUT**	The relatively large landscape scale, regular landscape pattern and predominant landcover of arable fields and relatively low density of wildlife, earth science or cultural designations, reduce sensitivity to onshore cable routes. However, the presence of visible slopes, exposed and strongly rural character with long uninterrupted views increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate. Localised areas of higher sensitivity relate to the Scheduled Monuments at Egmere and Crabb's Castle, Sculthorpe and West Raynham Conservation Areas, parkland at Cranmer and West Barsham, ancient woodland at Raby's Wood, and upper visible slopes.	**Moderate**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased further due to the nationally valued scenic qualities and natural beauty associated with this area (cable laying could affect the undeveloped coastal character, sense of remoteness and tranquillity). Overall, typical sensitivity to underground cables is considered to be moderate-high in the areas of ROF that falls within the AONB. In addition, the Grade I Registered parkland at Holkham Hall, the Conservation Areas of Holkham and Wells-next-the-Sea (and their associated clusters of listed buildings) have additional cultural heritage sensitivities.	**Moderate-High**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion	**OUT**	The gently rolling landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low density of wildlife, earth science or cultural designations reduce sensitivity to these types of development. However, the open, exposed and strongly rural character, with areas of visually prominent slopes and undeveloped skylines, limited opportunities for localised screening and relatively high scenic quality, all increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate. Localised areas of lower sensitivity include those where the strongly rural character diminishes and modern human influence is greater; notably in the vicinity of Fakenham, which has a busier character and larger-scale development and infrastructure is also visible on the skyline. Further areas of	**Moderate**

Rolling Open Farmland

plants (typical size range 2.5 – 8 ha)		lower sensitivity are associated with existing farm complexes containing larger-scale built form, such as storage sheds, and locations with higher visual screening/containment by planting or landform. Localised areas of higher sensitivity relate to the Scheduled Monuments at Egmere and Crabb's Castle, Sculthorpe and West Raynham Conservation Areas, parkland at Cranmer and West Barsham, areas more remote from built development, and areas that are particularly visible/ prominent, including those areas visible from the adjacent River Valleys LCT.	
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased within the AONB due to the nationally valued scenic qualities and natural beauty associated with this landscape (the introduction of these types of development would likely adversely affect the undeveloped coastal character, remoteness and tranquillity of the area). Overall, typical sensitivity to underground cables is considered to be high in the areas of ROF that falls within the AONB. In addition, the Grade I Registered parkland at Holkham Hall, the Conservation Areas of Holkham and Wells-next-the-Sea (and their associated clusters of listed buildings) have additional cultural heritage sensitivities.	**High**
Reservoirs (typical size range 2 – 5ha)	**OUT**	The gently rolling landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low density of wildlife, earth science or cultural designations reduce sensitivity to reservoir development. However, the open, exposed and strongly rural character, with areas of visually prominent slopes and undeveloped skylines, and low managed hedgerow field boundaries affording limited opportunities for localised screening of reservoir embankments all increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate. Localised areas of lower sensitivity include areas of lower lying land in natural bowls where less land modelling would be required, or in more enclosed areas where existing mature shelter belts and woodland blocks may afford greater visual screening and containment of reservoirs. Localised areas of higher sensitivity relate to the setting of Scheduled Monuments at Egmere and Crabb's Castle, Sculthorpe and West Raynham Conservation Areas, areas close to landmark skyline features such as the church towers of St Mary and All Saints, Sculthorpe and St Peter, Dunton, and areas visible from the adjacent River Valleys LCT.	**Moderate**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased further due to the nationally valued scenic qualities and natural beauty of this landscape. Overall, typical sensitivity to reservoir development in the AONB is considered to be moderate-high. In addition, the Grade I Registered parkland at Holkham Hall is sensitive to any development that may affect its historic interest or views that are highlighted in the listing description. Similarly, the Conservation Areas of Holkham and Wells-next-the-Sea (and their associated clusters of listed buildings) are localised areas where sensitivity to such development is further raised due to high cultural heritage value.	**Moderate-High**

River Valleys



River Valleys

Baseline Landscape

Introduction to the Landscape Character Type

Parts of three river systems, the Wensum, the Bure and the Ant, feed south and eastward through the District into the Broads. The river Wensum is one of the finest examples of a lowland chalk river in the country. Two principal rivers, the Stiffkey and the Glaven, together with one shorter watercourse, Mundesley Beck, are also rare chalk rivers, flowing northwards over the chalk bedrock to the sea.

The valley floors provide a strong contrast to the typically open, large-scale arable landscapes through which they pass, being characterised by a pastoral land use, a high level of tree cover and a linear settlement pattern, with significant local variations in land cover and, consequently, in views. On valley sides there is typically a continuation of arable farming from the adjacent areas, but landform nonetheless gives a more contained character on which the valley floors have a strong visual influence. The tributary valleys are more intimate and enclosed with extensive woodland cover and hedgerows bordering narrow lanes and settlement confined to valley floors.

The northern fringes of the Stiffkey and Glaven, and all of Mundesley Beck, lie within the Norfolk Coast AONB, and the mouth of the Stiffkey is also part of the North Norfolk Heritage Coast. Small areas at the mouths of all three form part of North Norfolk's Undeveloped Coast policy area.

Component Character Areas

There are six geographically distinct River Valleys in North Norfolk:

RV1 – River Wensum and tributaries

RV2 – River Bure and tributaries

RV3 – River Ant and tributaries

RV4 – River Stiffkey and tributaries

RV5 – River Glaven and tributaries

RV6 – Mundesley Beck

Key Characteristics for Type[18]

- Typically shallow-sided valleys
- A relatively small-scale pattern of varied land uses on valley floors
- Larger arable fields on valley sides, distinct from valley floors
- Relatively high level of woodland cover
- Settlement and roads follow valley sides
- High biodiversity
- Contrast between valley floor containment and expansive views from valley crests

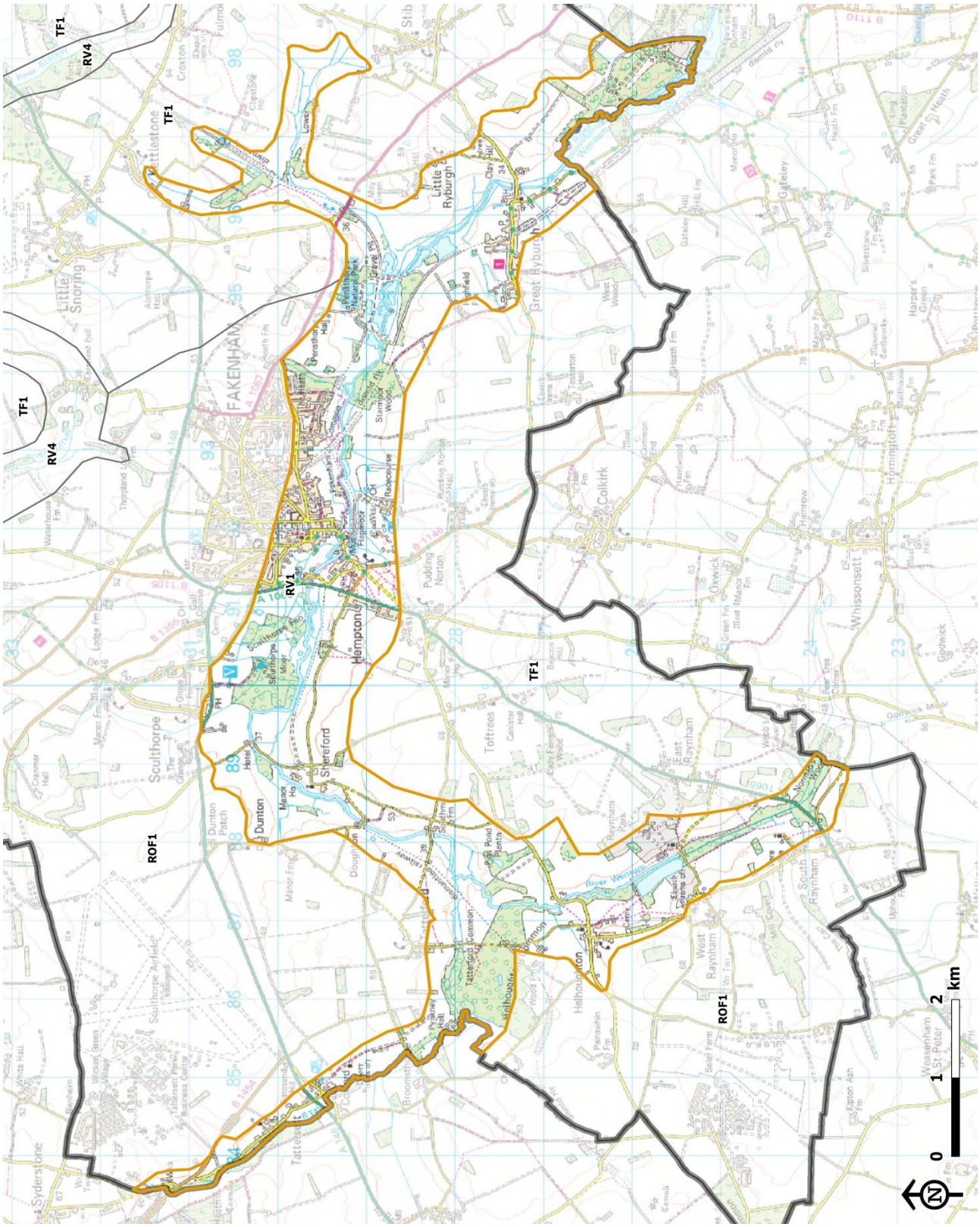
Valued features and qualities

- Intimate, contained rural character
- Variety of landscape elements and scenic views
- Wealth of biodiversity
- Strong sense of time depth and historical continuity
- Parklands enhance historic landscape character
- Views of numerous church towers within and across valleys
- Other valued features include views of numerous church towers within and across valleys, such as at Fakenham and Wiveton.

[18] Detailed information about landscape character, including characteristics specific to each Character Area, and valued features is set out in the North Norfolk Landscape Character Assessment (2018)

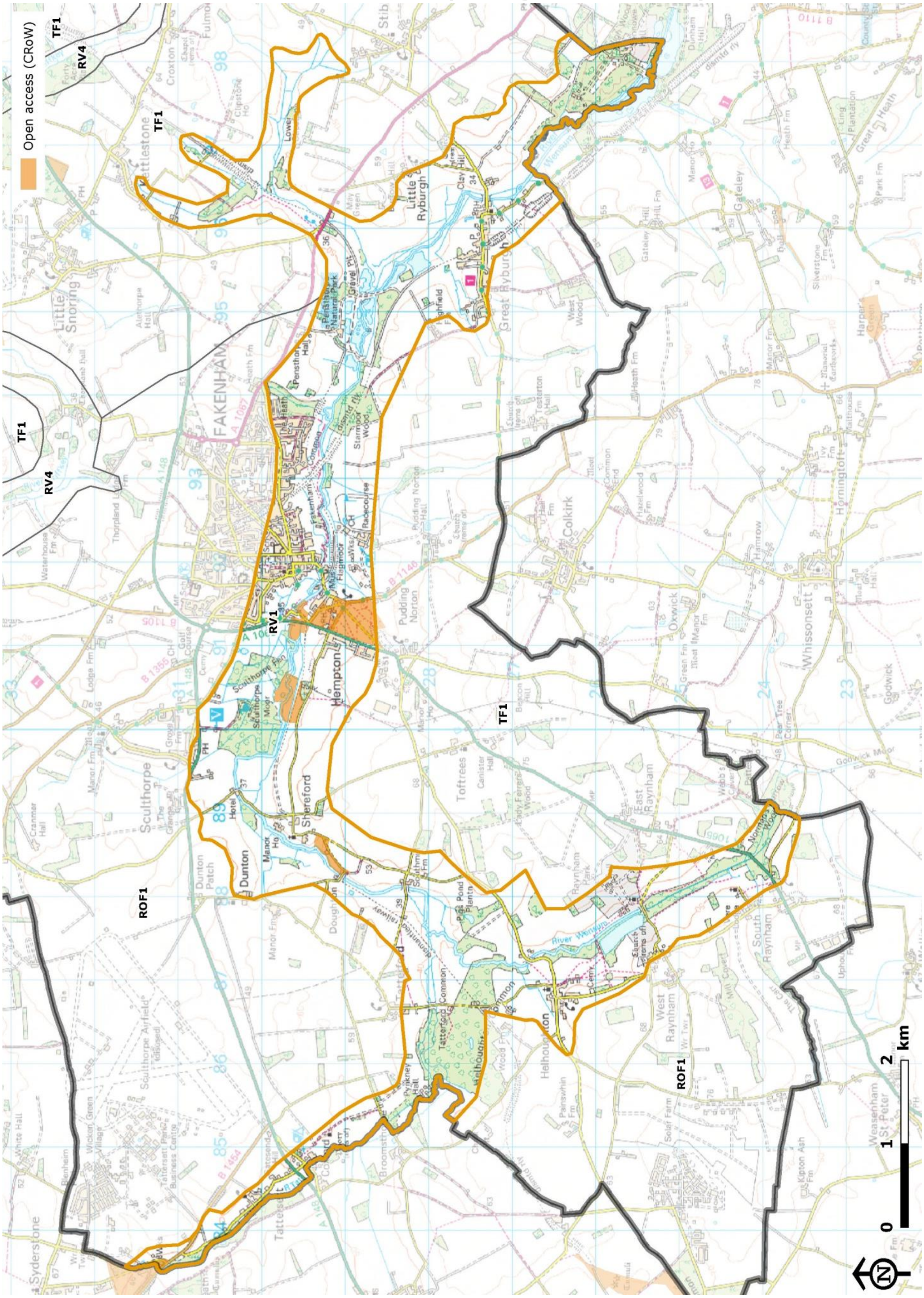
River Valleys

Location of RV1 - River Wensum and tributaries



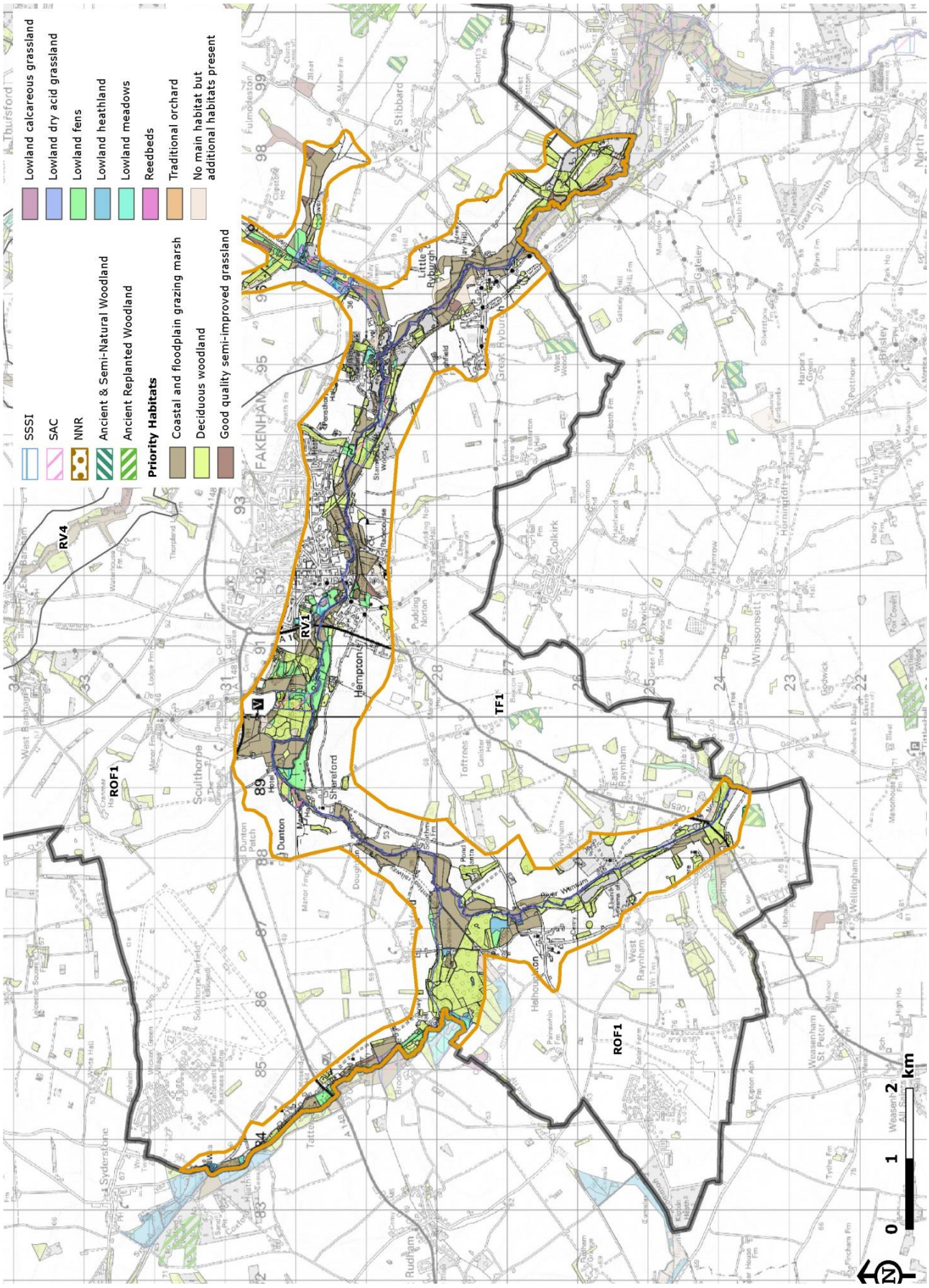
River Valleys

RV1 - River Wensum and tributaries - Landscape Designations and Policy Area



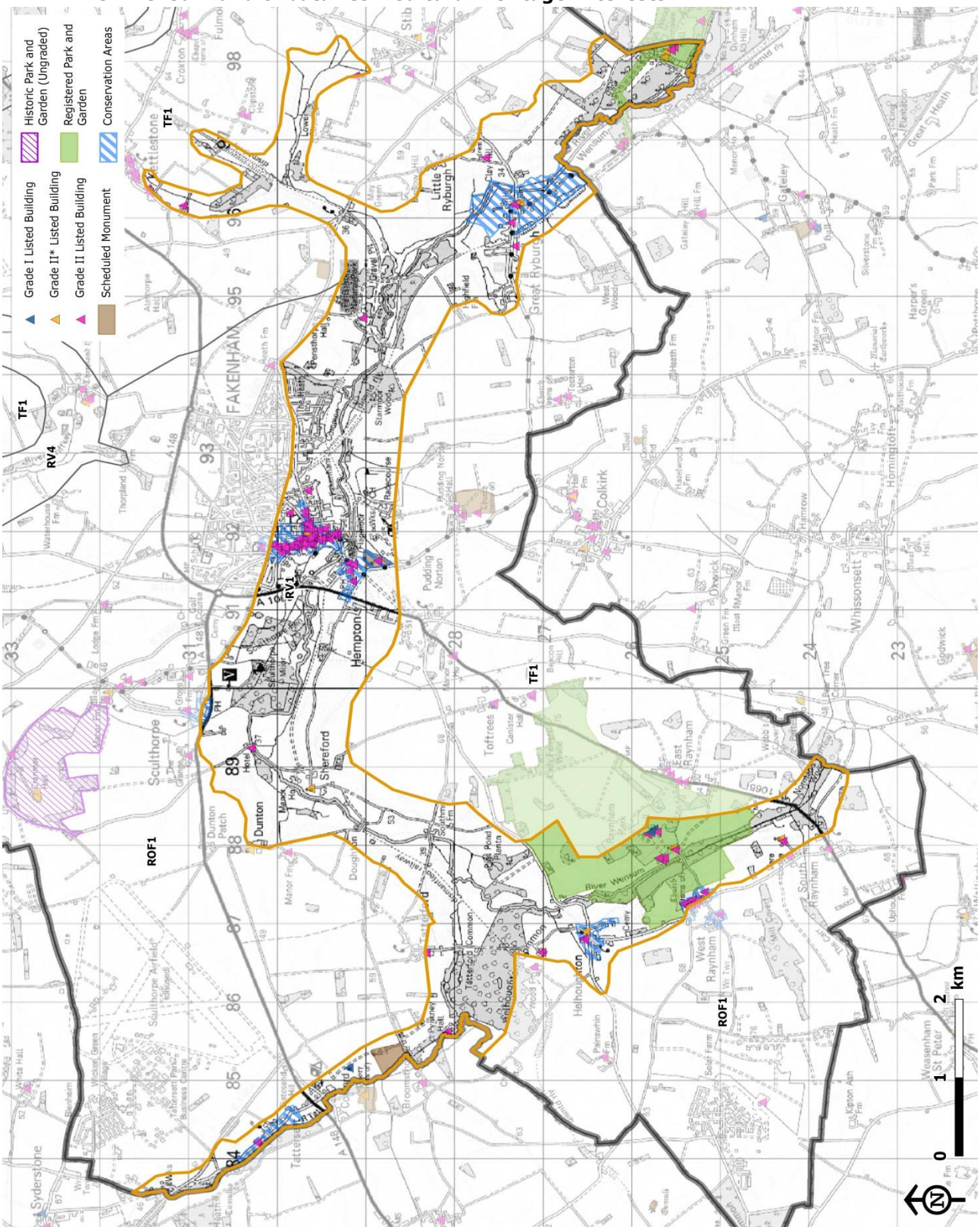
River Valleys

RV1 - River Wensum and tributaries - Nature Conservation Interests



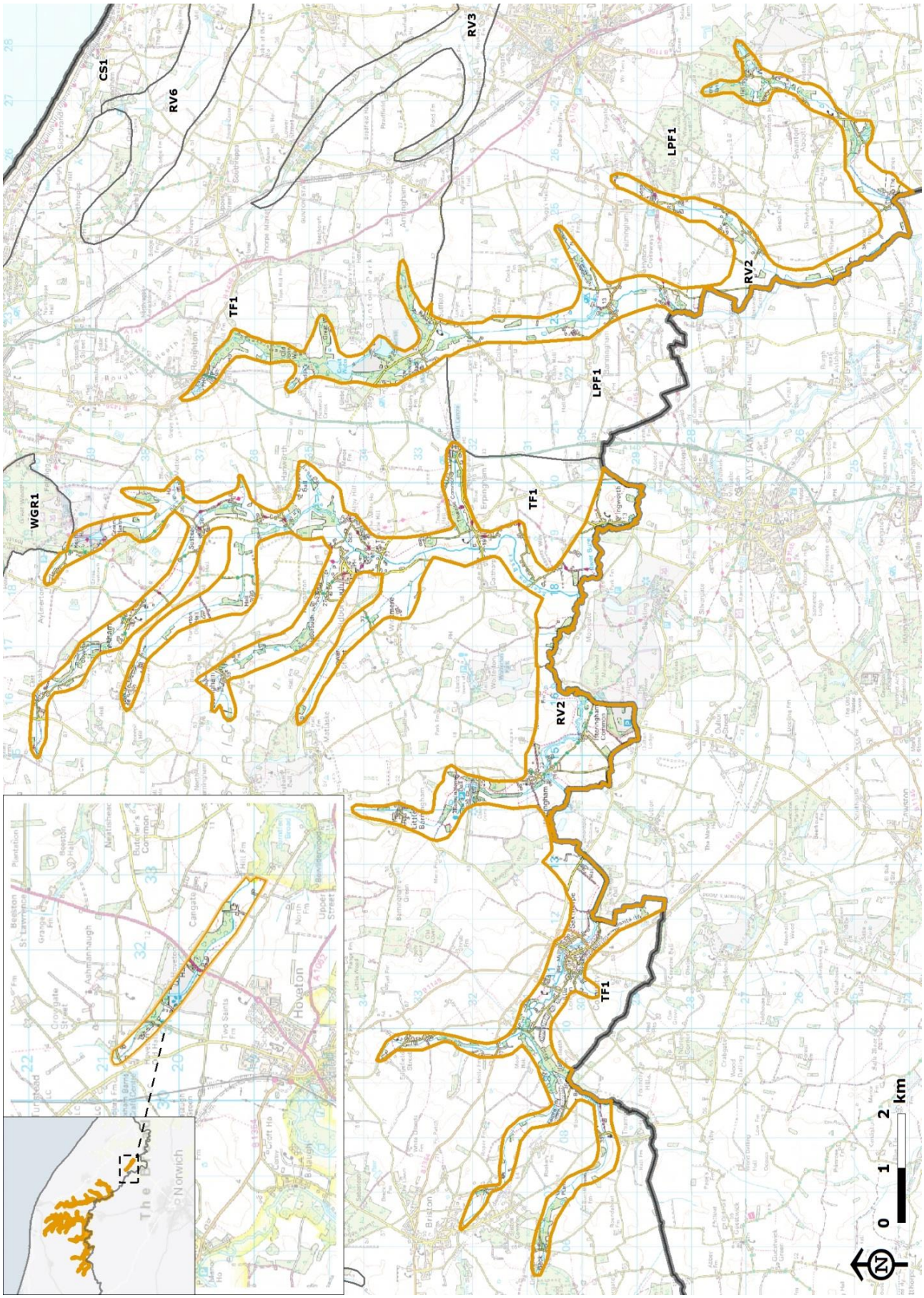
River Valleys

RV1 - River Wensum and tributaries - Cultural Heritage Interests



River Valleys

Location of RV2 – River Bure and tributaries

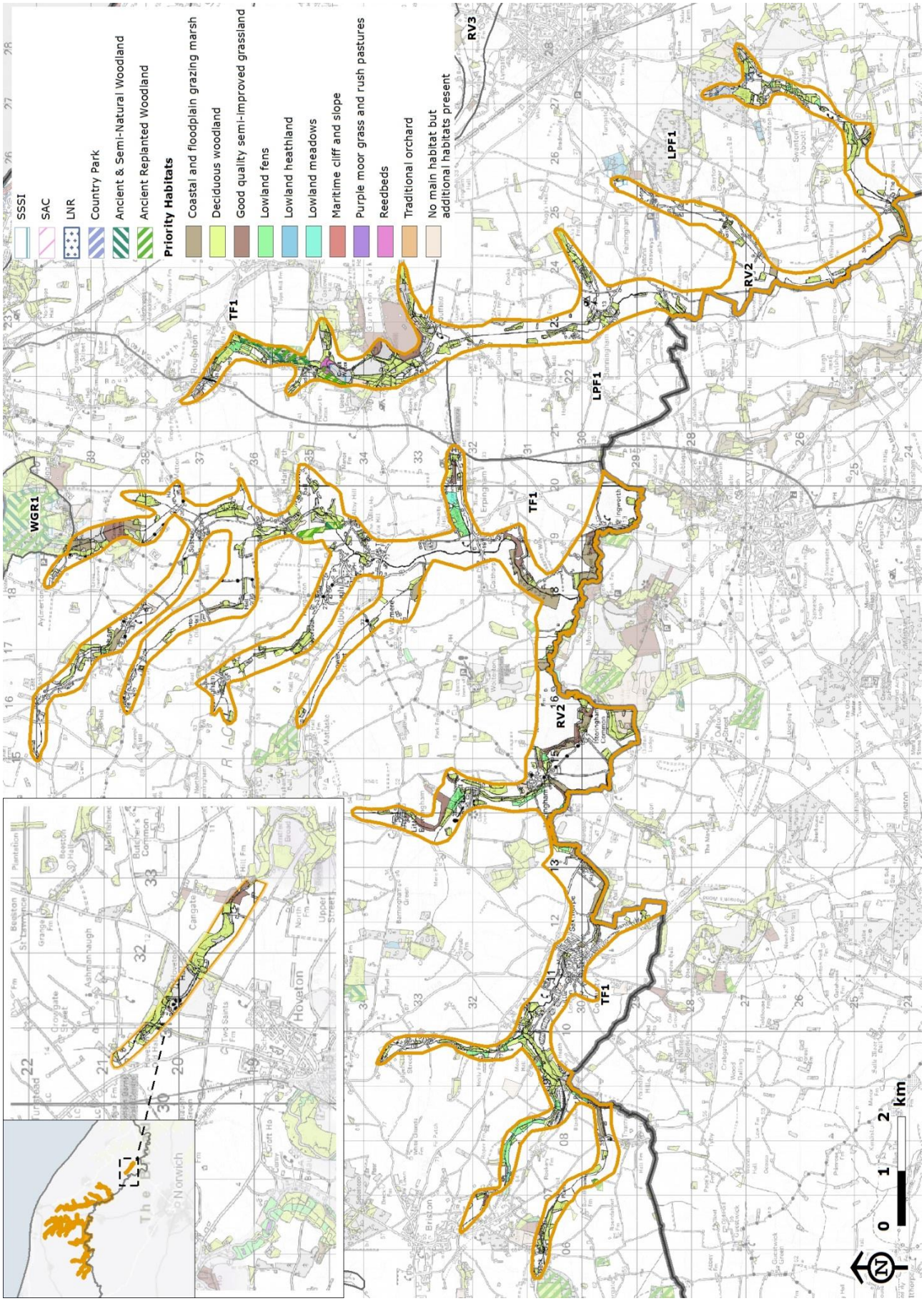


River Valleys

RV2 – River Bure and tributaries - Landscape Designations and Policy Area

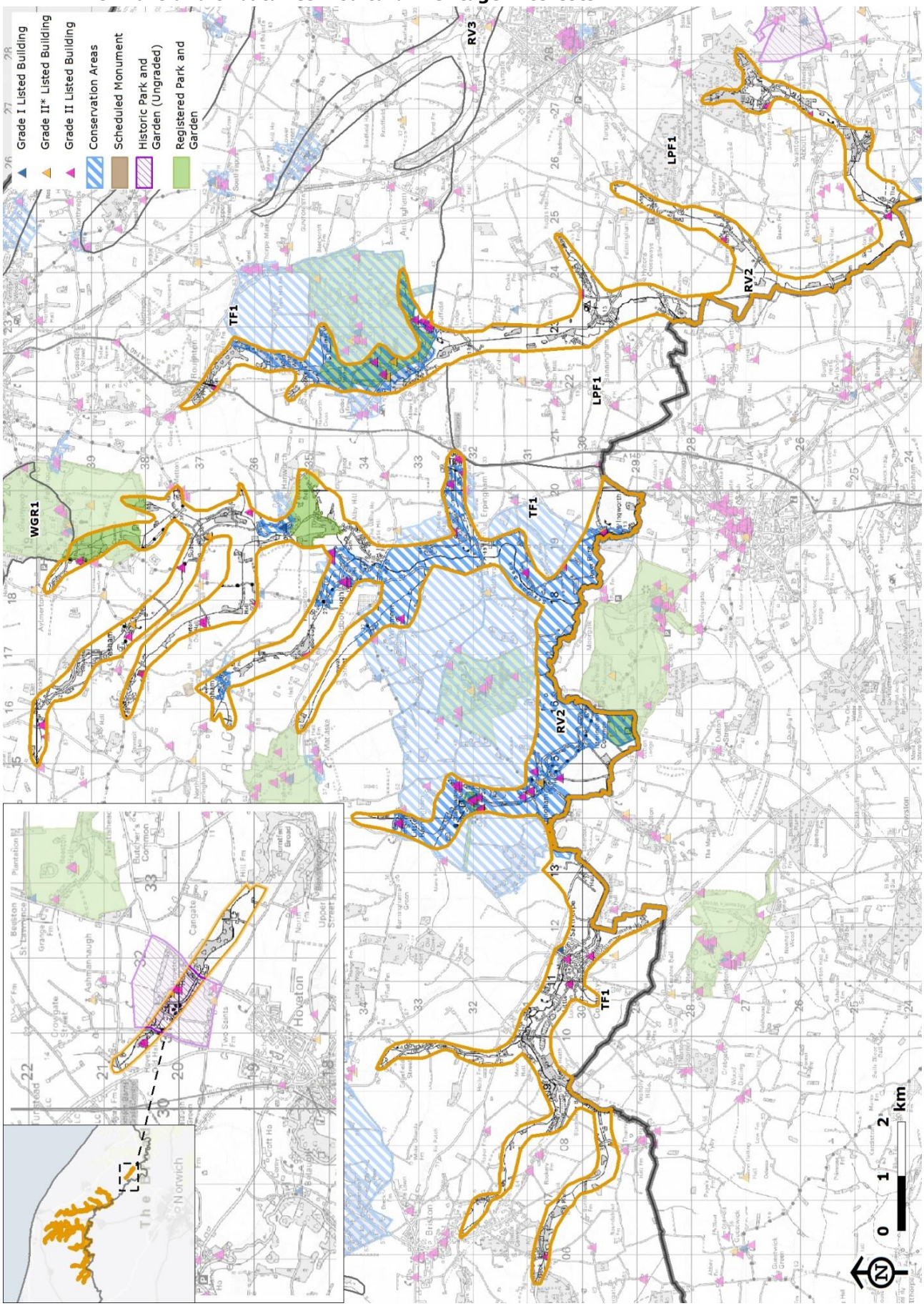
River Valleys

RV2 – River Bure and tributaries - Nature Conservation Interests



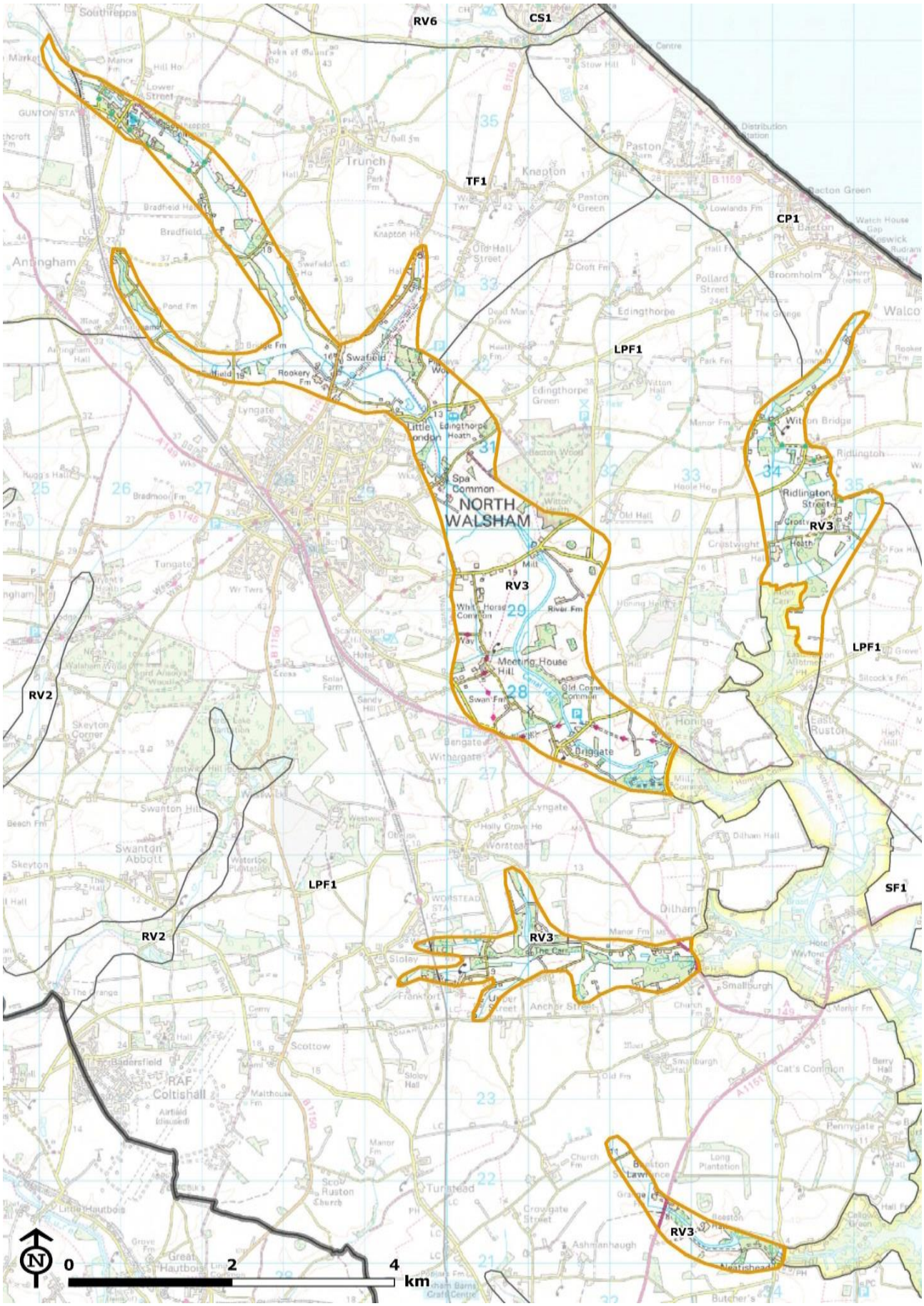
River Valleys

RV2 – River Bure and tributaries - Cultural Heritage Interests



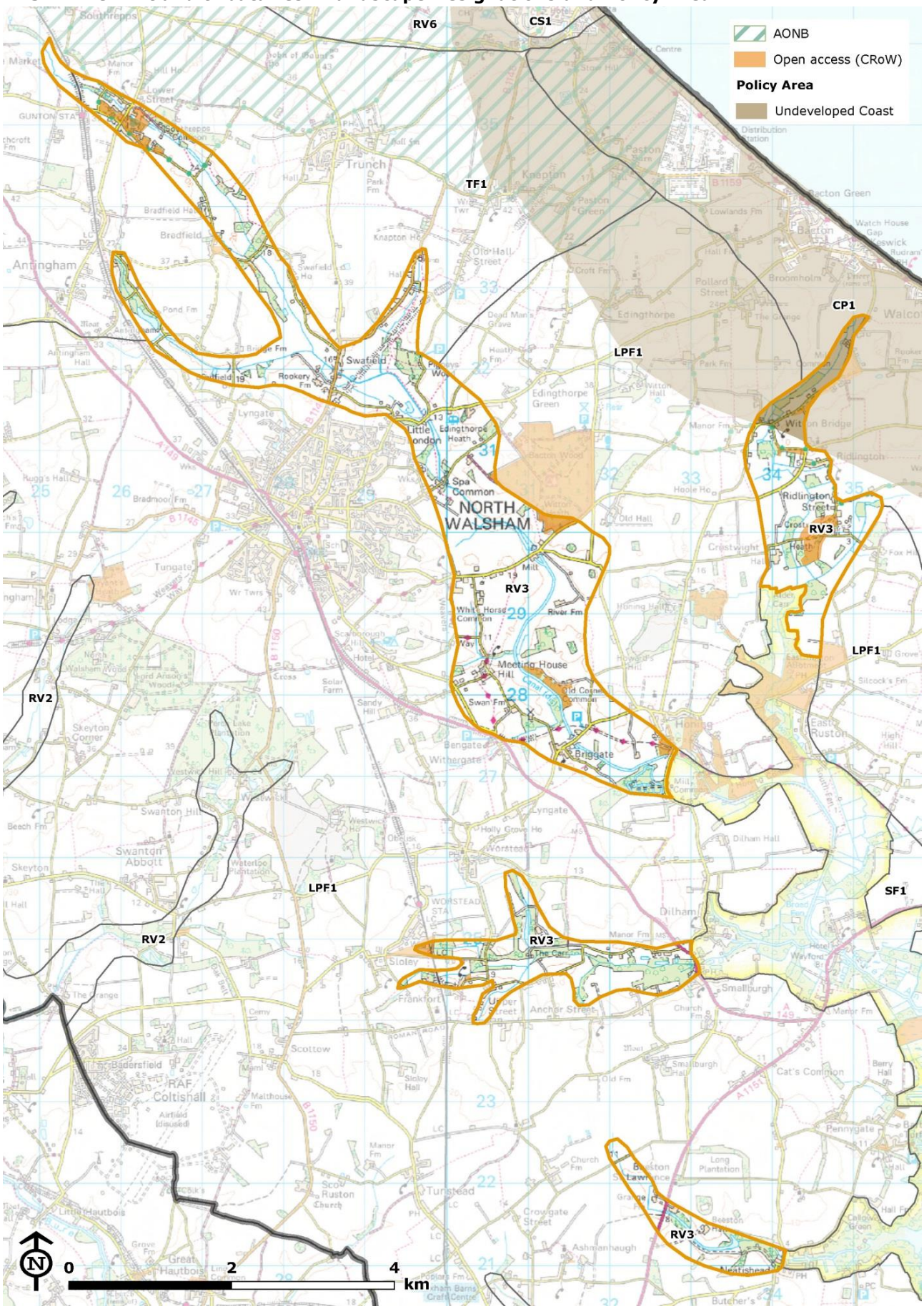
River Valleys

Location of RV3 – River Ant and tributaries



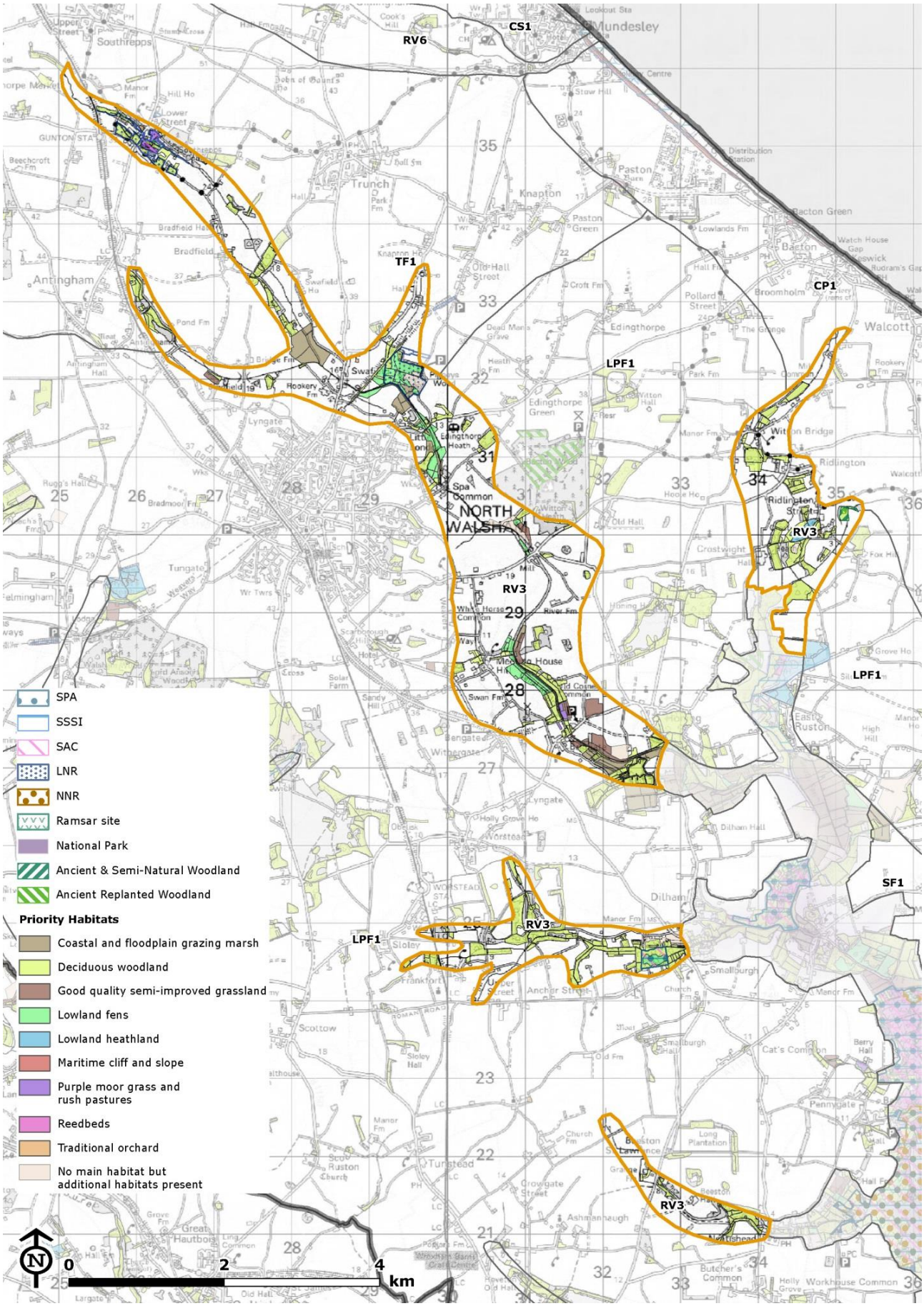
River Valleys

RV3 – River Ant and tributaries - Landscape Designations and Policy Area



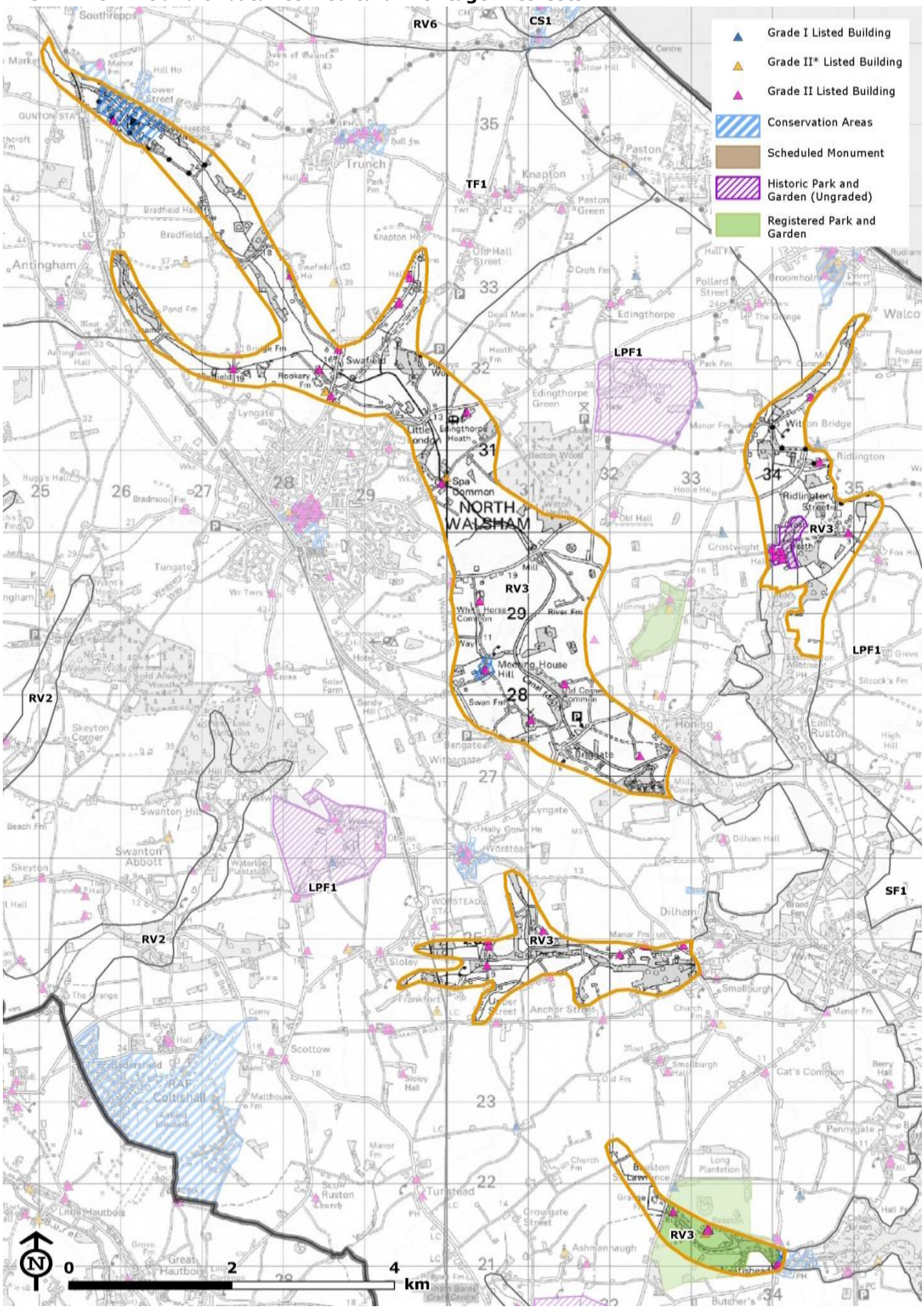
River Valleys

RV3 – River Ant and tributaries - Nature Conservation Interests



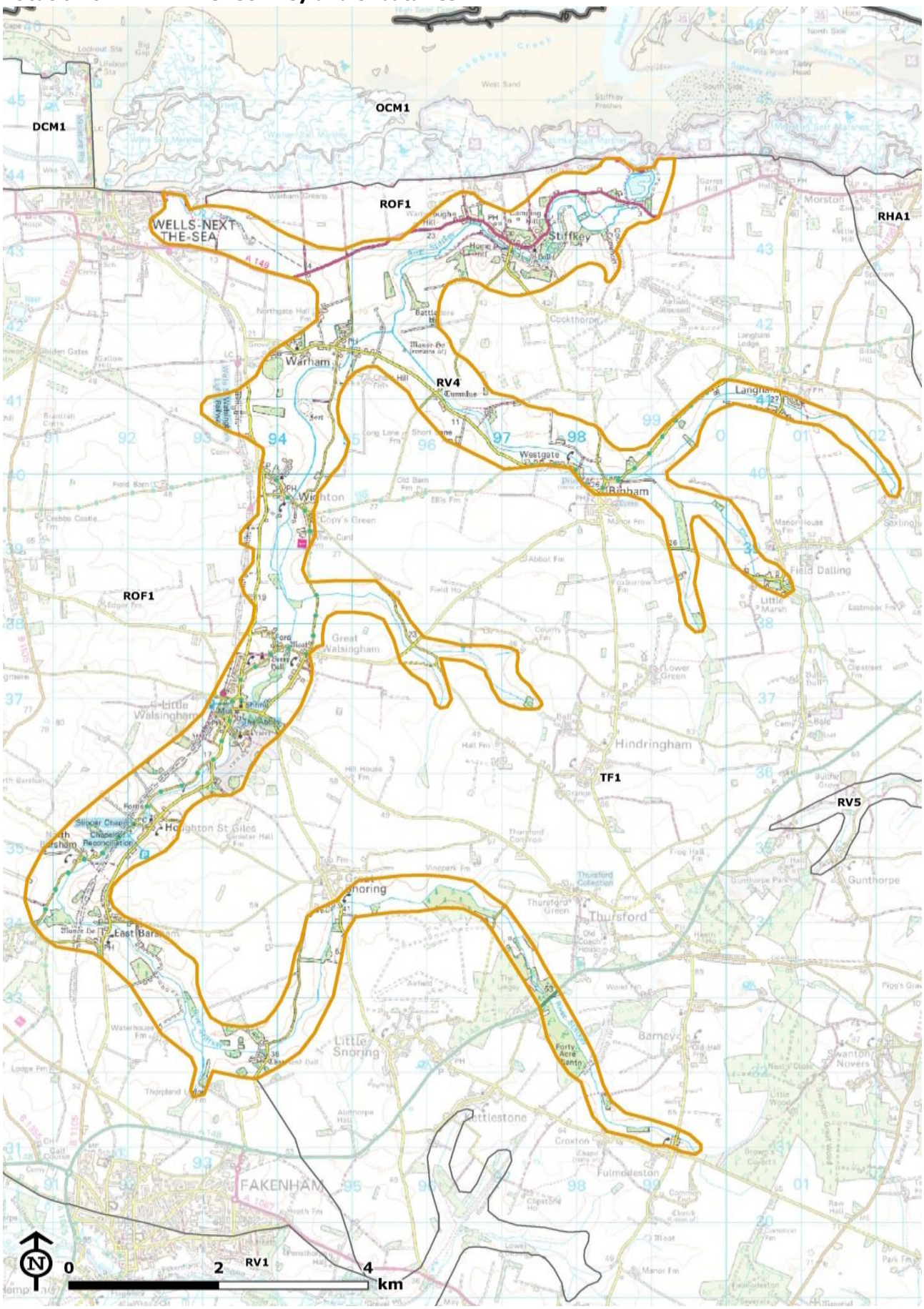
River Valleys

RV3 – River Ant and tributaries - Cultural Heritage Interests



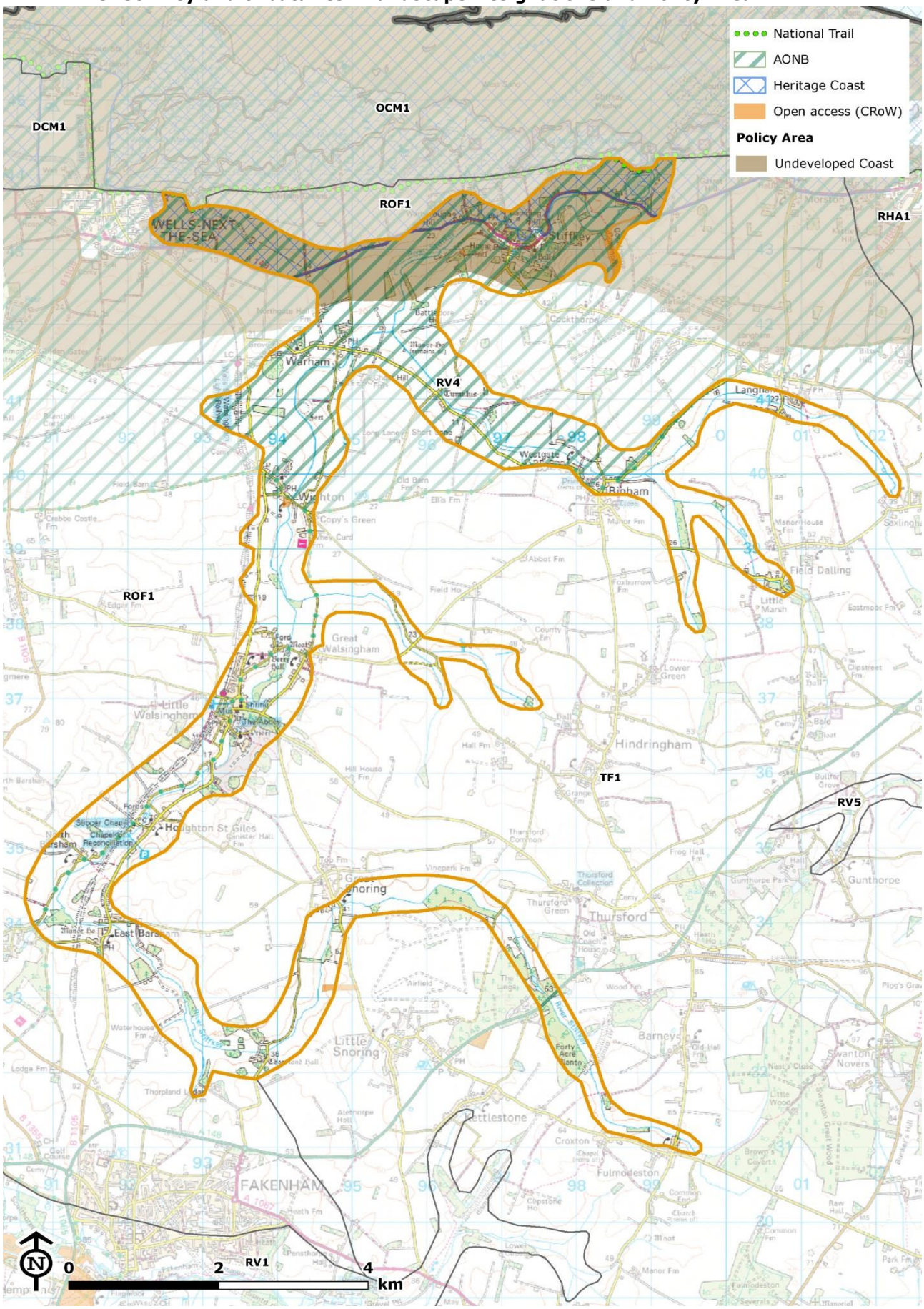
River Valleys

Location of RV4 – River Stiffkey and tributaries



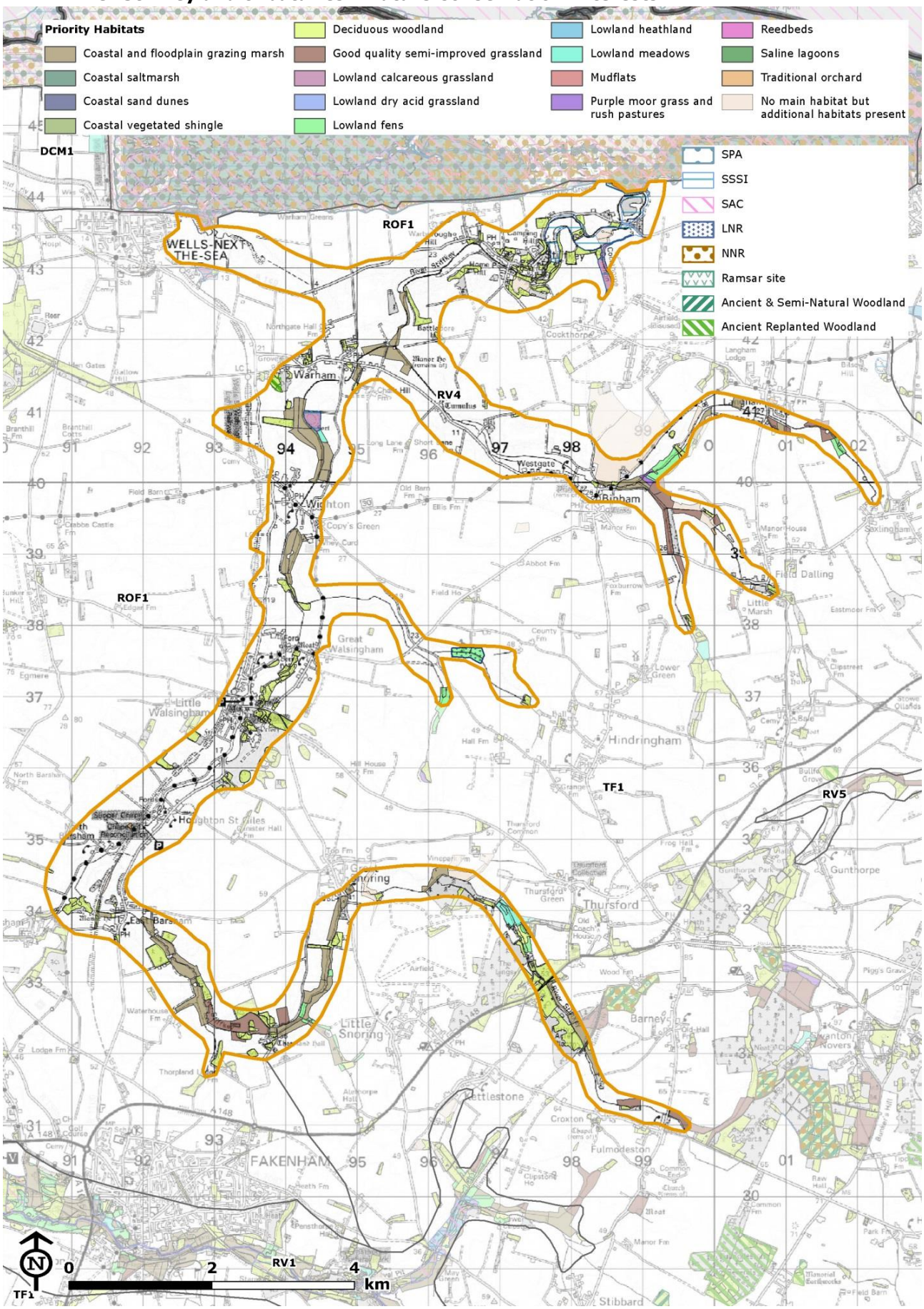
River Valleys

RV4 – River Stiffkey and tributaries - Landscape Designations and Policy Area



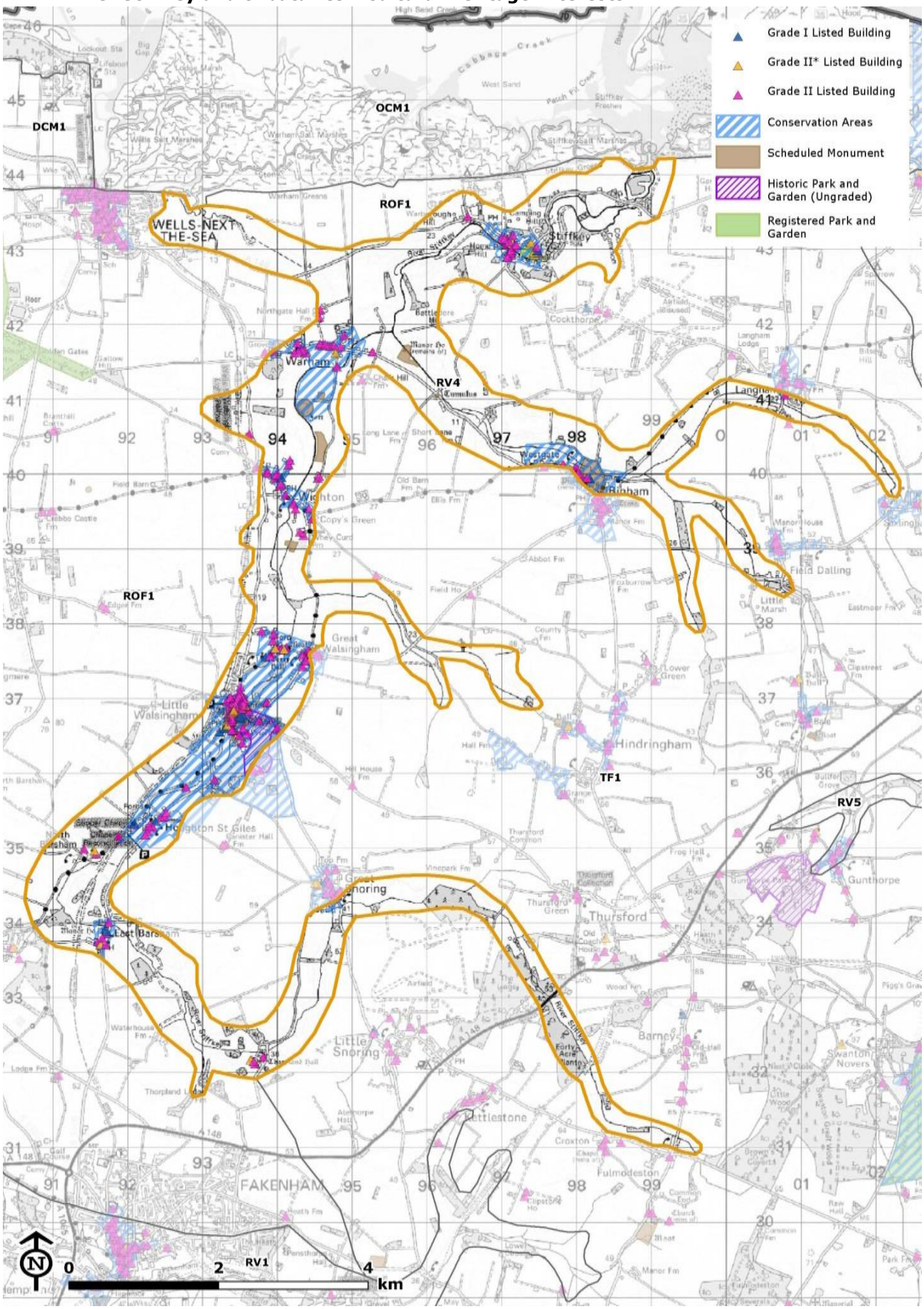
River Valleys

RV4 – River Stiffkey and tributaries - Nature Conservation Interests



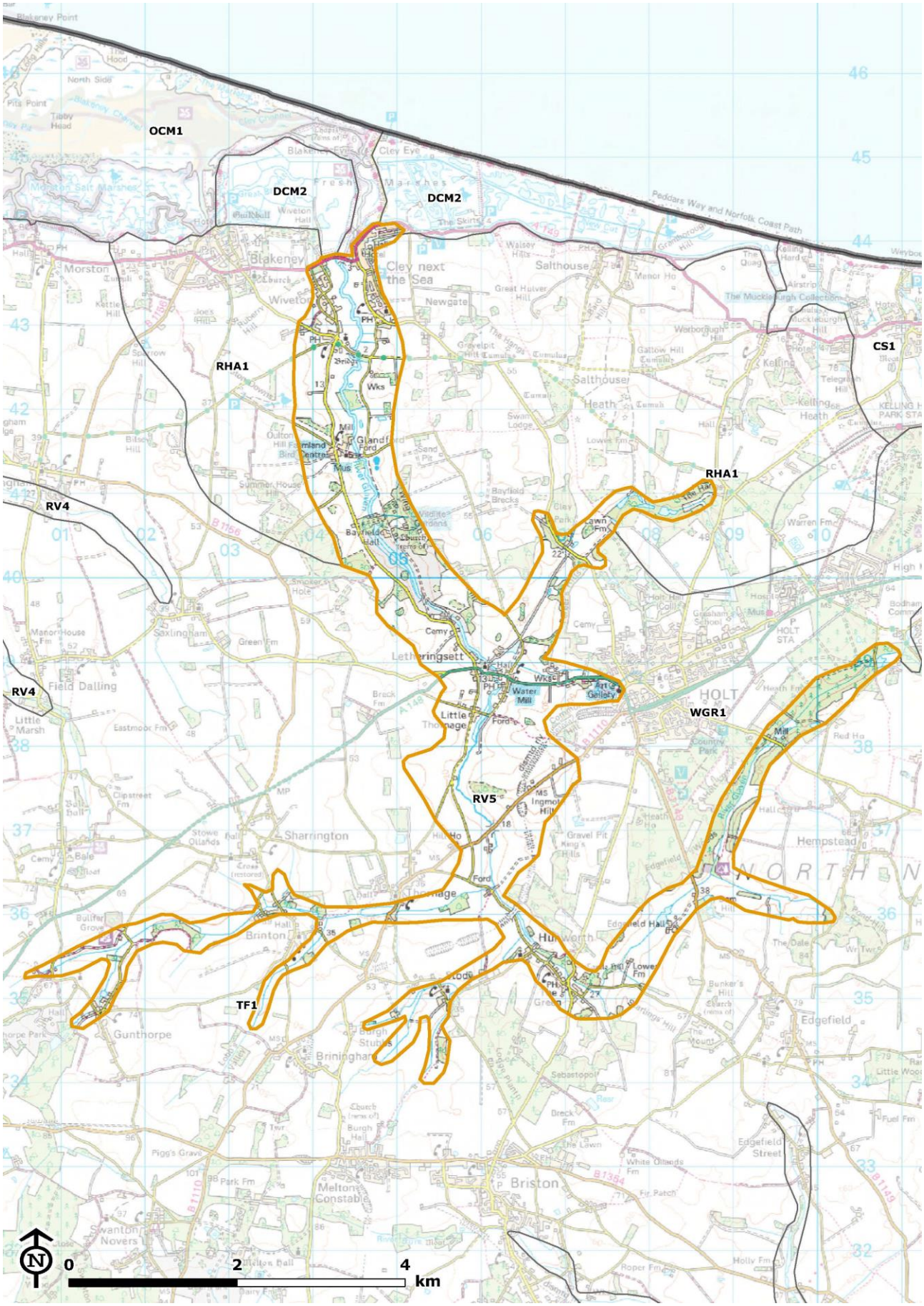
River Valleys

RV4 – River Stiffkey and tributaries - Cultural Heritage Interests



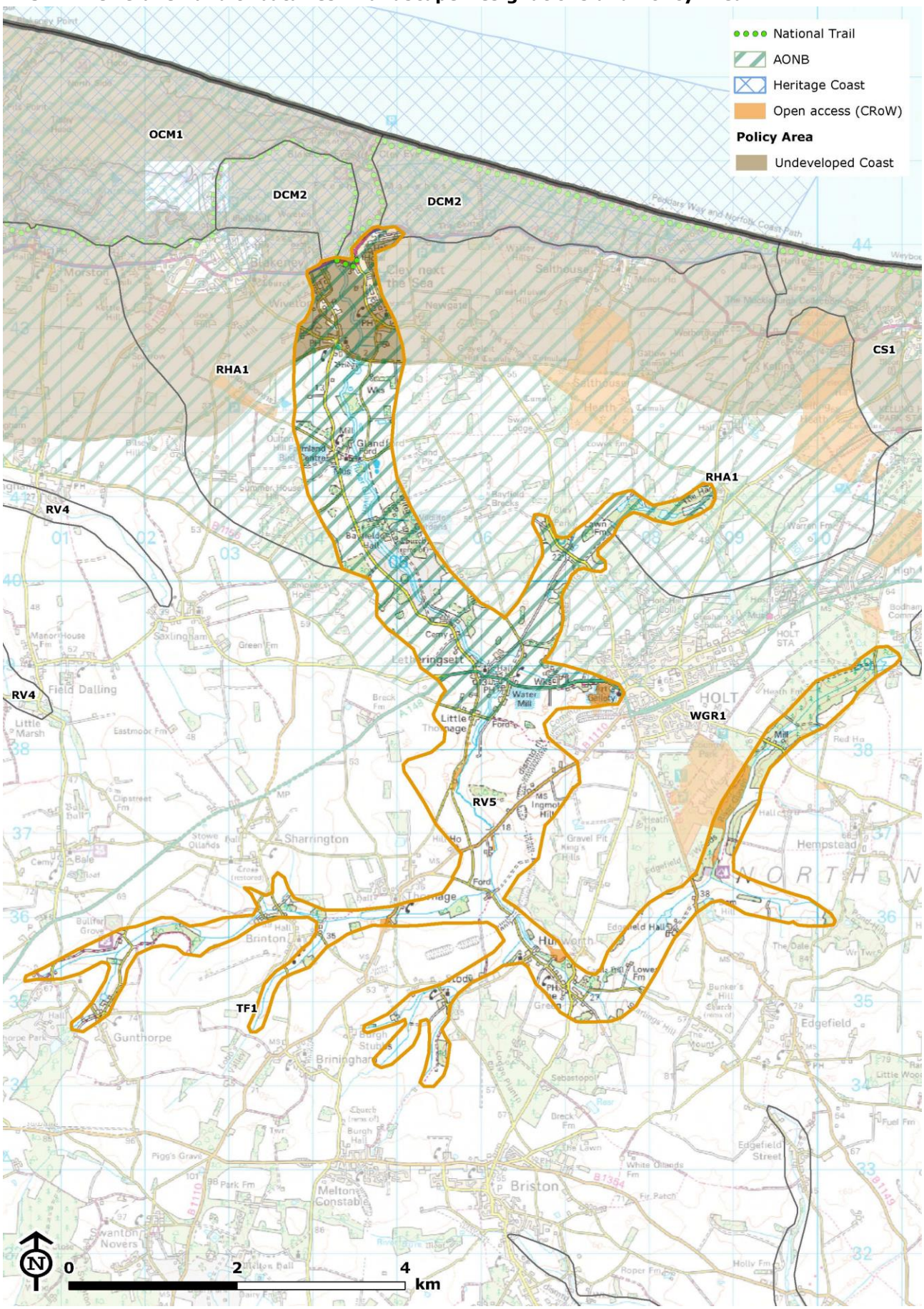
River Valleys

Location of RV5 – River Glaven and tributaries



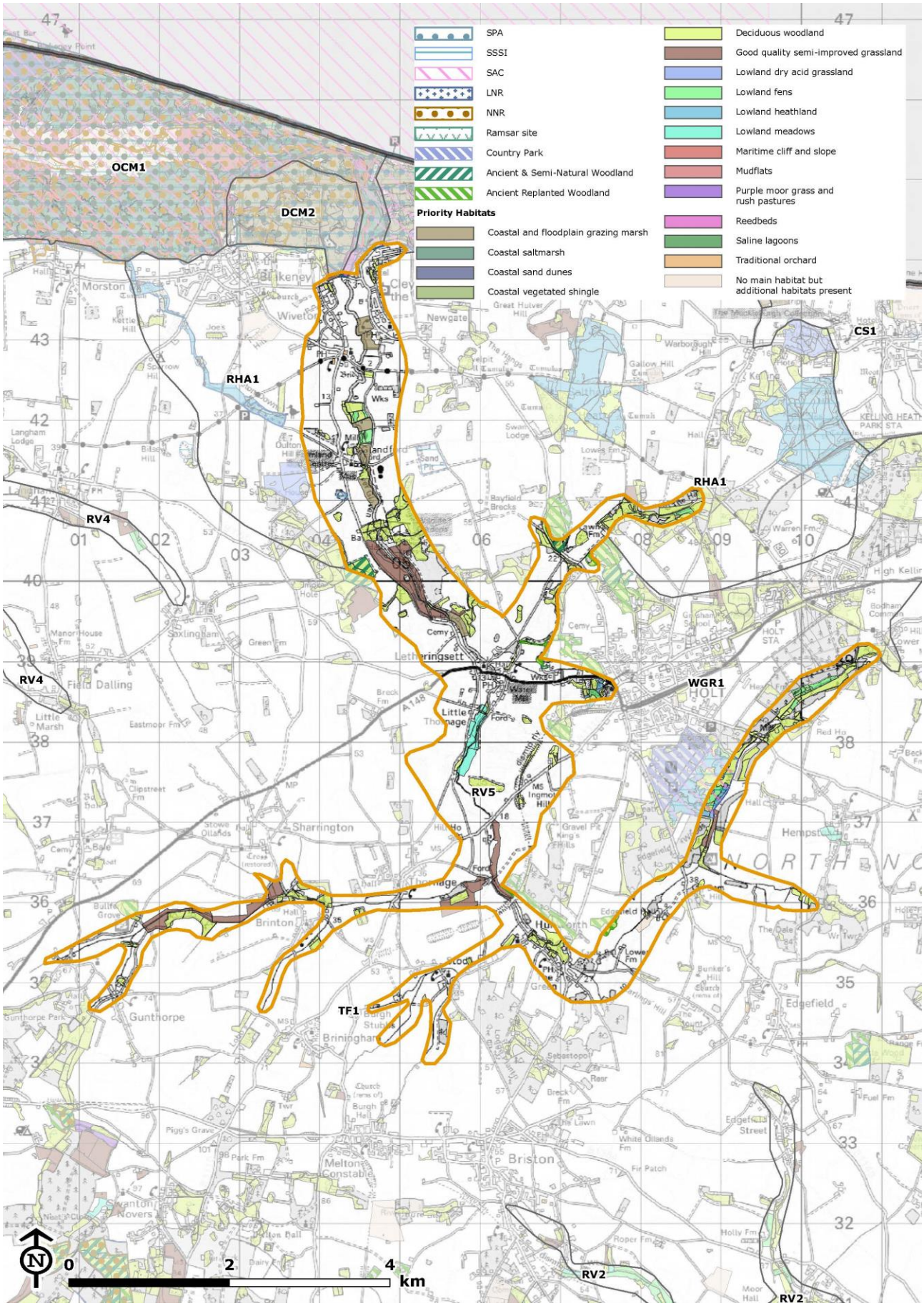
River Valleys

RV5 – River Glaven and tributaries - Landscape Designations and Policy Area



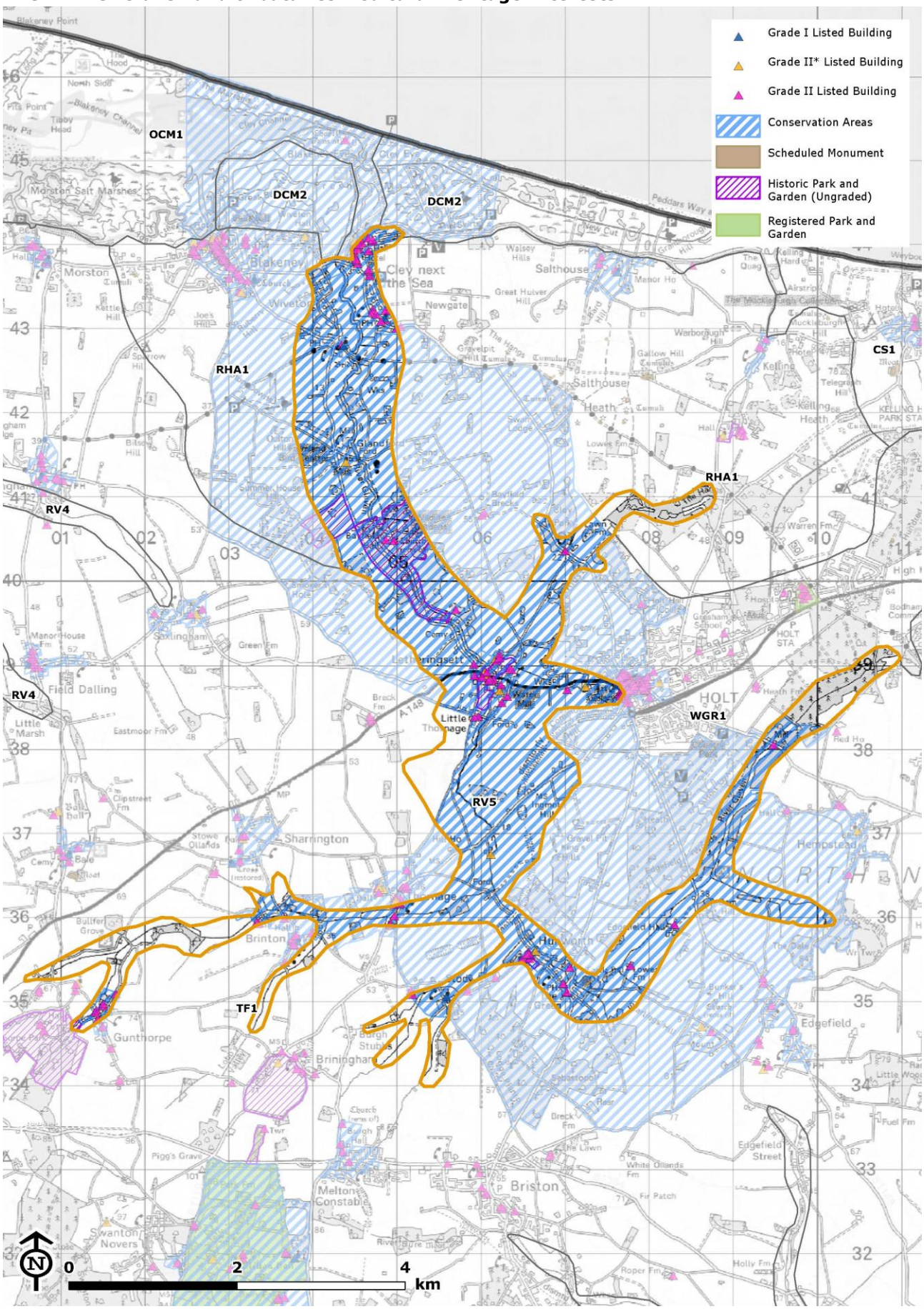
River Valleys

RV5 – River Glaven and tributaries - Nature Conservation Interests



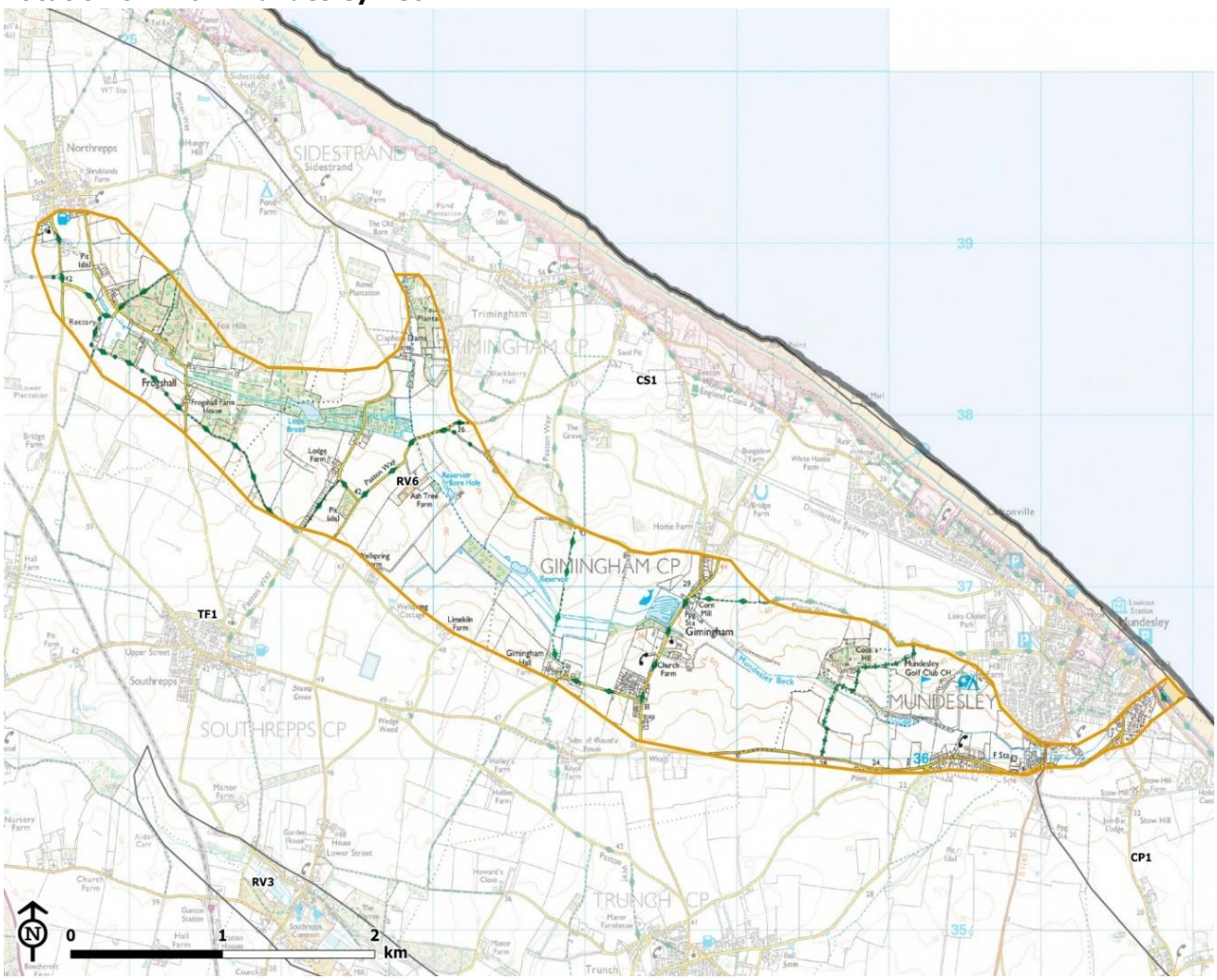
River Valleys

RV5 – River Glaven and tributaries - Cultural Heritage Interests



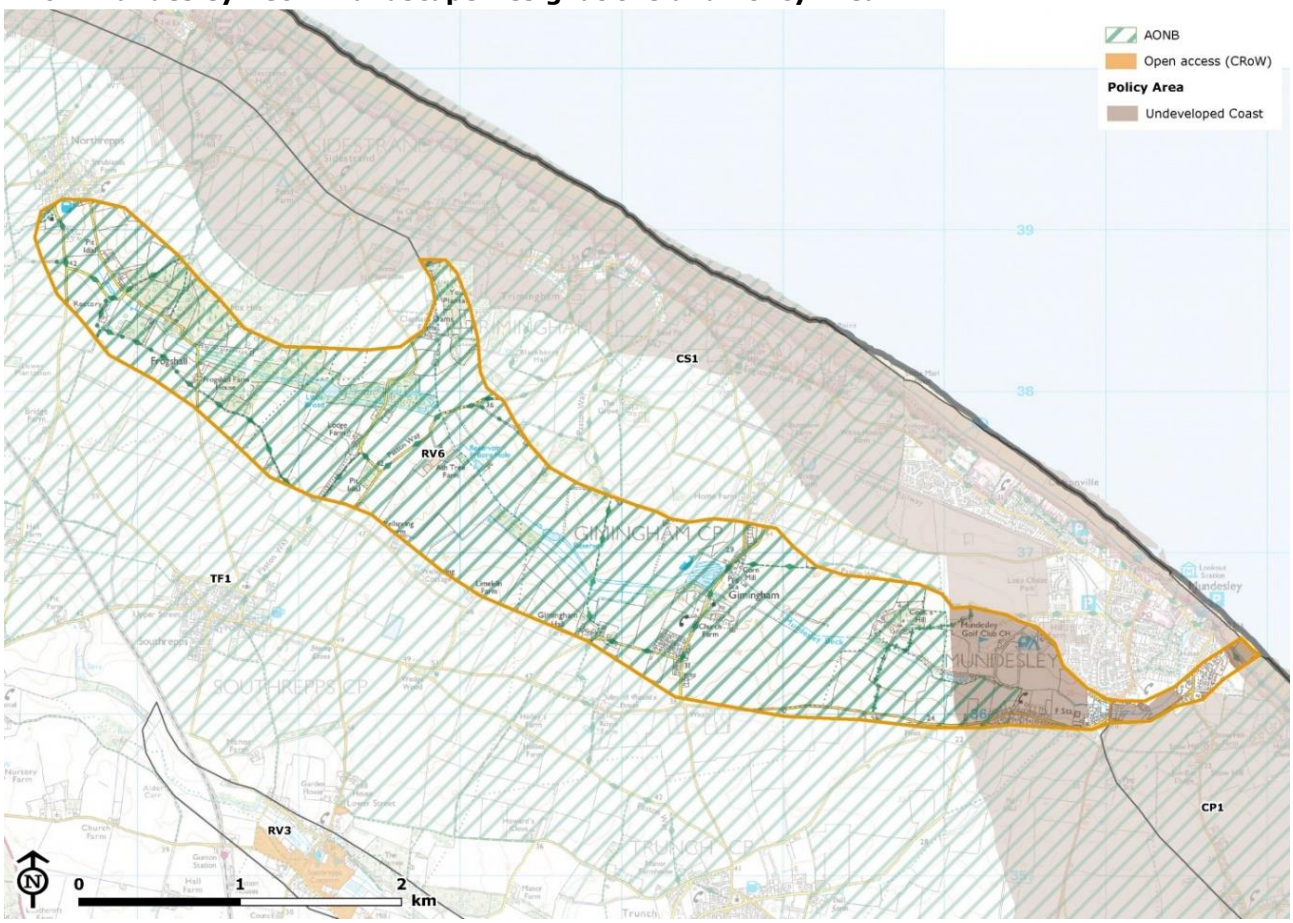
River Valleys

Location of RV6 – Mundesley Beck



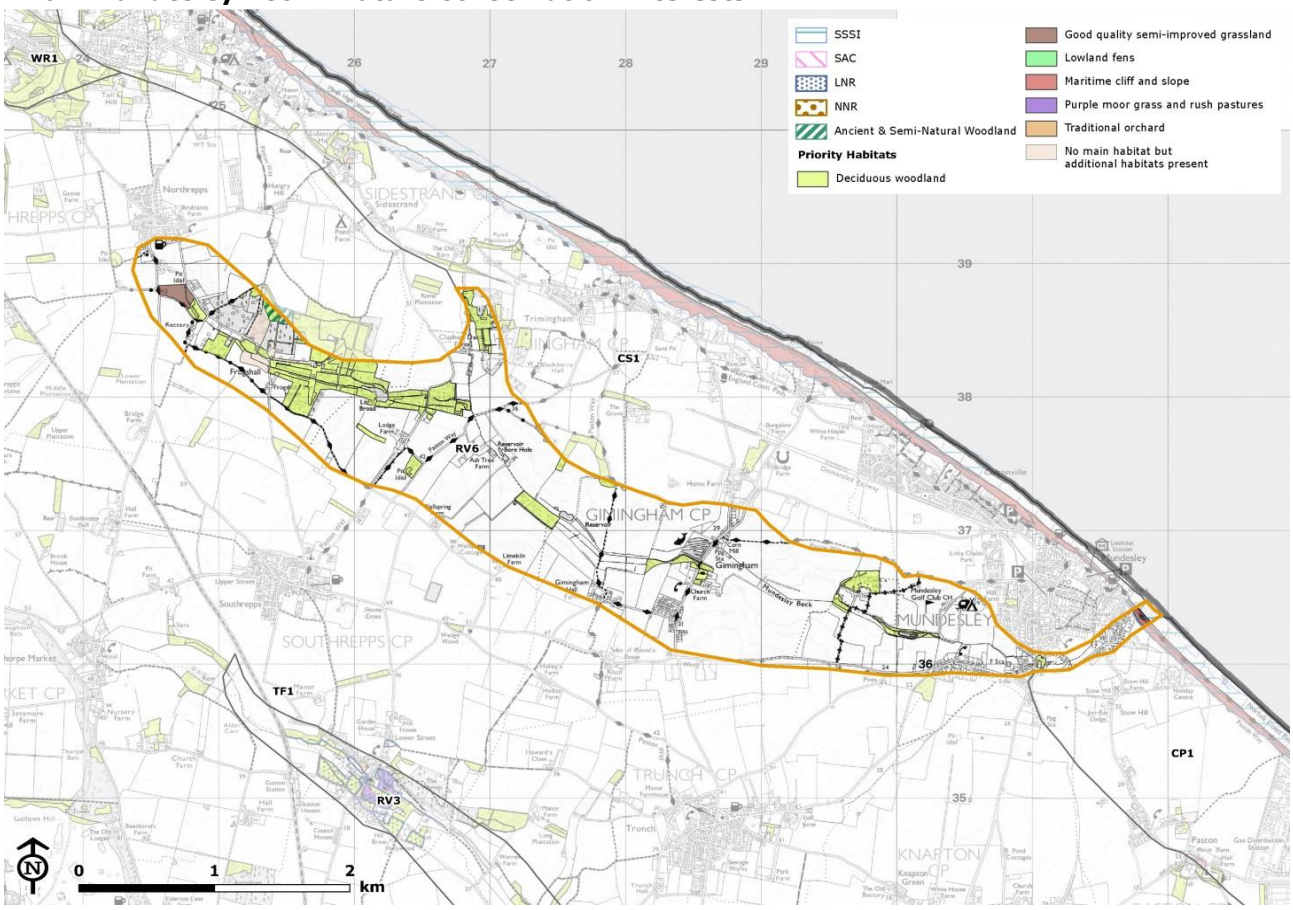
River Valleys

RV6 – Mundesley Beck - Landscape Designations and Policy Area



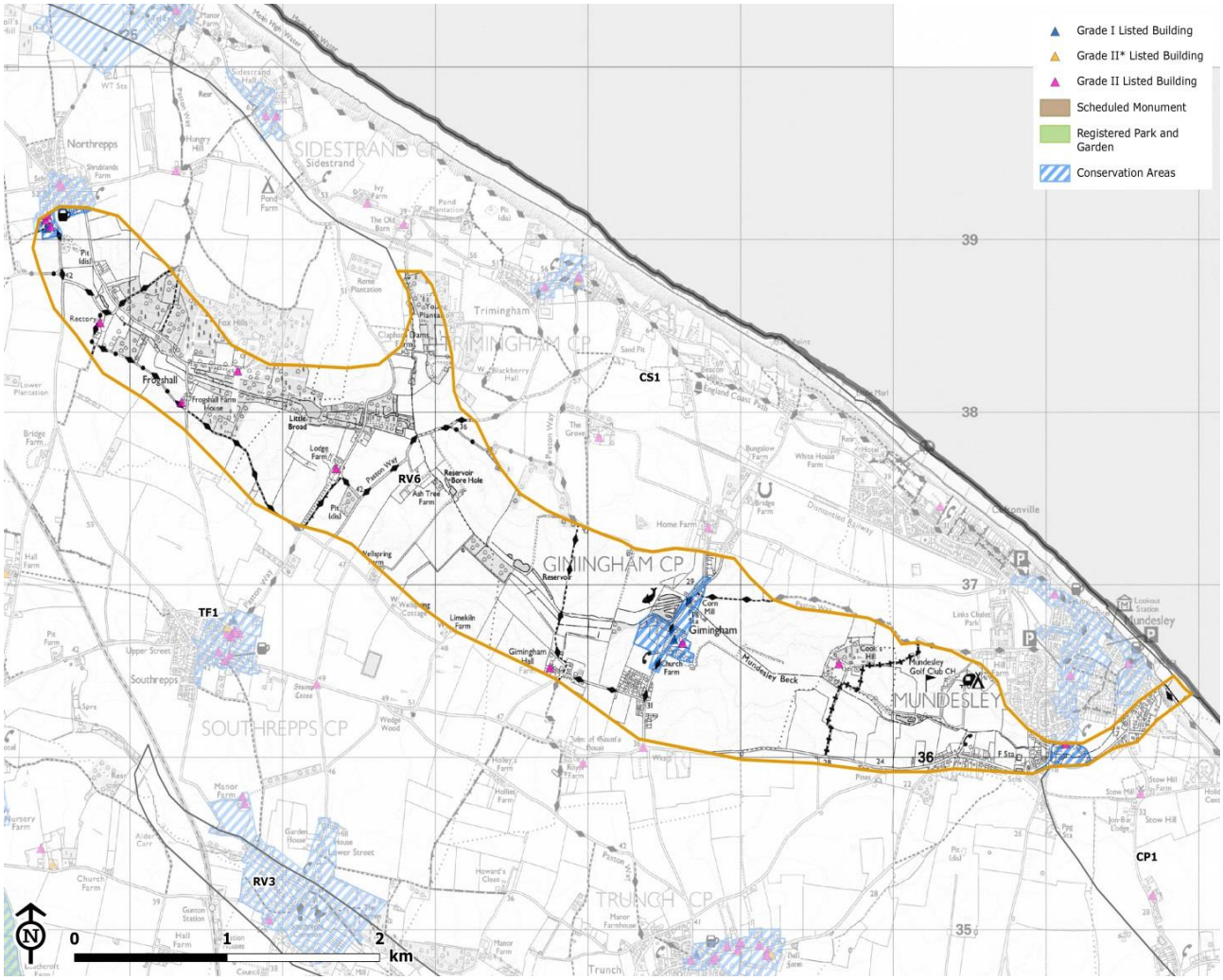
River Valleys

RV6 – Mundesley Beck - Nature Conservation Interests



River Valleys

RV6 – Mundesley Beck - Cultural Heritage Interests



River Valleys

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the River Valleys LCT against the sensitivity criteria which have been predetermined for the development types. Any variations between the individual character areas are set out in the text.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	The valleys in North Norfolk are typically shallow-sided. Landmark historic features such as church towers sited on valley sides (e.g. St Mary's, Bessingham) are visually prominent which generally increases sensitivity to tall features, such as wind turbines, which could dominate the scale of the valley sides. The Wensum is the largest river in the District, with a typical wide valley floor and low, often indistinct, valley sides; the Ant has an indistinct, complex form with terracing and small hills in the context of a larger valley, and the Stiffkey and Glaven valleys close to the coast are deeper than others in the District. Valley sides tend to have higher sensitivity to features such as field scale solar PV developments, cable routes or industrial features which would be more visible than on flatter terrain.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Landcover	River valleys have greater habitat diversity than the broader arable landscapes that typically surround them, including higher levels of tree cover and pasture. There is sometimes a transition between the more diverse valley floors and the less diverse higher valley sides, within adjacent Character Areas, which are often in arable use. A diversity of natural landcover elements increases sensitivity to all types of development.	↑	↑	↑	↑	↑	↑	↑	↑	↑

River Valleys

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of openness/ enclosure	Valley floor vegetation – woodland and hedgerows – often provides a sense of enclosure that contrasts with the openness of much of the surrounding farmland, but typically this relates only to a relatively narrow belt of land. The valley sides are generally more open, and their elevation above valley floors creates a degree of openness albeit within the context of containment from the wider landscape. These attributes balance each other out in terms of sensitivity to wind turbines, solar PV, cable routes and reservoir developments. Localised enclosure by woodland may reduce sensitivity to smaller industrial-type developments.	–	–	–	–	–	↓	↓	↓	–
Scale (landform and component features), landscape pattern & complexity	River valley landscapes have a more complex, smaller-scale mosaic of land cover than the arable farmlands by which they are largely contained. Association with watercourses or sloping topography means that shapes are often more sinuous and less geometric than the dominant landscape pattern in adjacent farmlands. Frequent small villages and narrow connecting lanes add to complexity and the 'human' scale of the landscape. These factors increase sensitivity to all development types.	↑	↑	↑	↑	×	↑	↑	↑	↑
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	The river valleys are typically settled, but for the most part this consists of small rural villages, often with a historic character recognised through Conservation Area designations, connected by minor roads. Containment from the wider landscape also adds to a sense of rural tranquillity which increases sensitivity to all development types.	↑	↑	↑	↑	↑	↑	↑	↑	↑

River Valleys

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Time depth / historical continuity	Constraints to farming provided by valley landscapes mean that the reorganisation of fields for large-scale arable farming that have affected much of the District have not commonly occurred in the valleys. This combined with the influence of many historic villages means that there is typically a strong sense of time-depth which increases sensitivity to all types of development. A number of historic parklands also extend into valley floor areas, often in association with the creation of lakes. At Fakenham, where the town has expanded out from its historic river valley core, most modern development has occurred in the adjacent ROF Character Type, and does not have a significant impact on the character of the valley.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The northern fringes of the Stiffkey and Glaven, and all of Mundesley Beck, lie within the Norfolk Coast AONB, and the mouth of the Stiffkey is also part of the North Norfolk Heritage Coast. Any of the development types located within or close to the AONB have the potential to affect the AONB's defined special qualities to an extent, in particular the undeveloped coastal character and tranquillity. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or affecting these areas.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The contrast between open, large-scale arable farmland and the smaller-scale, more varied and more wooded river valleys outside the AONB and Heritage Coast, is valued as adding to scenic	↑	↑	↑	↑	↑	↑	↑	↑	↑

River Valleys

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	quality. Historic vernacular villages, woodlands, hedgerows, meadows and parkland trees and lakes also contribute to scenic quality and sense of place, and valley landforms permit scenic views. This scenic quality increases sensitivity to development. <u>Representativeness:</u> Although valued in the District context, the river valleys are not, in landscape terms, considered particularly important examples at a national level. <u>Rarity:</u> Chalk streams, of which the Wensum, Stiffkey, Glaven and Mun are examples, are rare, ecologically rich habitats, and associated floodplain grazing marshes, fens and wet woodland are likewise valued and have a higher sensitivity. However, the majority of land in these valleys is not priority habitat, so developments could potentially avoid this ecological constraint. <u>Intactness:</u> Although well-treed, the valleys have little ancient woodland; however they have been less affected by 20th century intensive agriculture than adjacent landscapes. The number of relatively intact historic villages reflects the lack of substantial development within river valleys, so they typically are considered to have a degree of intactness that raises sensitivity to development. <u>Nature conservation & cultural heritage interests:</u> Heritage assets are frequent, and typically more commonplace than in adjacent areas where arable farming is the predominant land use, reflecting the									

River Valleys

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	historic valley-side settlement pattern. There are a number of Conservation Areas, notably almost all of the Glaven Valley and much of the Bure Valley and tributaries (the Mannington and Wolterton Conservation Area) and many small historic villages. There are also Registered Parks & Gardens (e.g. Raynham Park, Gunton Park and Beeston Hall) which extend into river valleys. The frequency of cultural heritage designations increases sensitivity to all development types. National nature conservation designations cover a much smaller area than cultural heritage ones, and are more associated with the Wensum than other river valleys. <u>Recreational value:</u> There are no national trails or significant linear rights of way associated with river valleys, although the lower reaches of the Stiffkey, Glaven and Mun are visible from the Peddar's Way and Norfolk Coast Path and from well-used coastal roads and tourist destinations (Wells, Mundesley and Cley). Historic villages such as Walsingham are a focus for recreational visitors, but for the most part the Landscape Type has limited recreational use. <u>Literary / artistic associations:</u> Betjeman wrote a poem ('Norfolk', 1954) which references the Bure, and 20th century poet George Barker is buried at Itteringham Church within the valley of the River Bure, but neither association adds significant value to river valley landscapes at a strategic scale.	–	–	–	–	–	–	–	–	–

River Valleys

Overall sensitivity to different development types

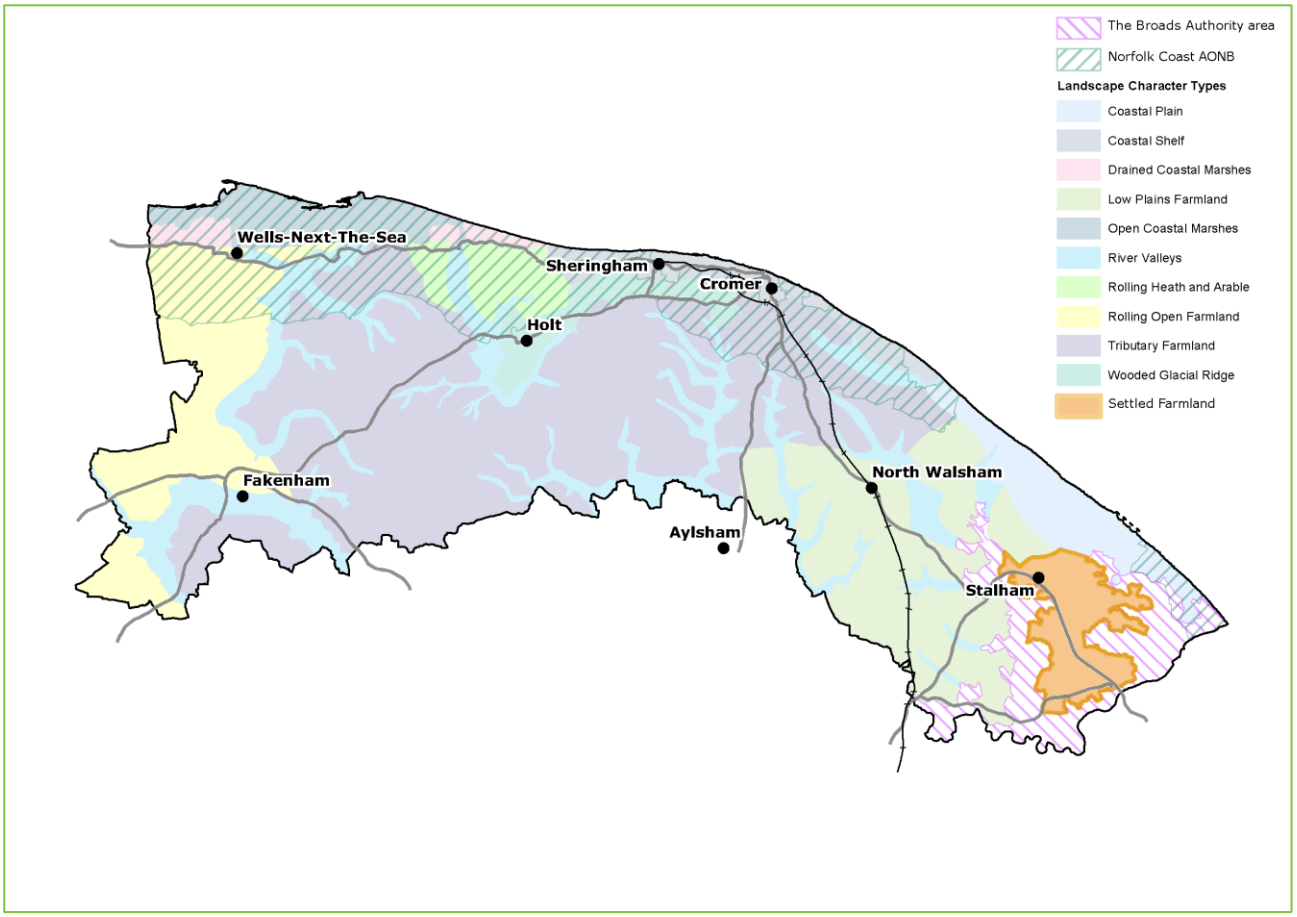
The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	AONB	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	**OUT**	The shallow nature of the valleys, diversity of land cover patterns, presence of human scale features, frequency of cultural heritage assets, sense of tranquillity, time depth, scenic quality and sense of intactness all increase sensitivity to large-scale wind turbines so that typical sensitivity to this scale of turbine is **high**. Areas of particularly high sensitivity are associated with locations in proximity to the AONB and Heritage Coast designations, Conservation Areas and historic parks, or would have a direct impact on nature conservation designations (especially associated with the Wensum) or priority habitats.	**High**
	IN	The AONB designation results in additional sensitivity due to the high scenic value and sensitivities associated with recreational use of the landscape. There are also particular sensitivities associated with Conservation Areas in the AONB: the Glaven Valley, Warham, Stiffkey, Binham, Wighton and Gimingham.	**High**
Medium scale wind turbines, (up to 60m hub height)	**OUT**	The shallow nature of the valleys, diversity of land cover patterns, presence of human scale features, frequency of cultural heritage assets, sense of tranquillity, time depth, scenic quality and sense of intactness all increase sensitivity to medium-scale wind turbines so that typical sensitivity to this scale of turbine is **high**. Areas of higher sensitivity are associated with locations in proximity to the AONB and Heritage Coast designations, Conservation Areas and historic parks, or would have a direct impact on nature conservation designations (especially associated with the Wensum) or priority habitats.	**High**
	IN	The AONB designation results in additional sensitivity due to the high scenic value and sensitivities associated with recreational use of the landscape. There are also particular sensitivities associated with Conservation Areas in the AONB: the Glaven Valley, Warham, Stiffkey, Binham, Wighton and Gimingham.	**High**
Small scale wind turbines, (up to 30m hub height)	**OUT**	Although the diversity of land cover patterns, presence of human scale features, sense of tranquillity, frequency of cultural heritage assets, time depth, scenic quality and sense of intactness all increase sensitivity to wind turbines, the valleys are a little less sensitive to this scale of turbine than the larger scale turbines. Overall, typical sensitivity to this scale of turbine is **moderate-high**. Areas of higher sensitivity are associated with locations in proximity to the AONB and Heritage Coast designations, Conservation Areas and historic parks, or would have a direct impact on nature conservation designations (especially associated with the Wensum) or priority habitats.	**Moderate-high**
	IN	The AONB designation results in additional sensitivity due to the high scenic value and sensitivities associated with recreational use of the landscape. There are also particular sensitivities associated with Conservation Areas in the AONB: the Glaven Valley, Warham, Stiffkey, Binham, Wighton and Gimingham.	**High**
Field-scale solar PV development (above 10 hectares site area)	**OUT**	Rural character, the presence of naturalistic landscape forms, and the scale of a typical solar farm in relation to small-scale valley floor landscapes increase sensitivity to field-scale solar PV development, despite the frequency of tree cover and high hedgerows which can provide screening. On higher valley sides there is commonly less potential to screen development. Overall, typical sensitivity is **high**. Sensitivity will be particularly high close to Conservation Areas or Registered Parks and Gardens, but there may also be localised lower valley-side sites where field sizes are relatively large and there is sufficient screening to reduce sensitivity.	**High**

River Valleys

	IN	The AONB designation results in additional sensitivity due to the high scenic value and sensitivities associated with recreational use of the landscape. There are also particular sensitivities associated with Conservation Areas in the AONB: the Glaven Valley, Warham, Stiffkey, Binham, Wighton and Gimingham. Sensitivity to any size of field-scale solar development is likely to also be high in the AONB.	**High**
Onshore cable routes for offshore wind farms (30m - 80m clearance)	**OUT**	The presence of some steep slopes, naturalistic landscapes, sense of tranquillity, intactness/ time depth, relatively high scenic quality and presence of heritage assets increase sensitivity to buried cable routes in this landscape type. Over the river valleys have a **moderate-high** sensitivity to buried cable routes. There may be lower sensitivity to short valley crossings which align with existing landscape elements – e.g. roads - but higher sensitivity to routes that run along valleys for significant distances.	**Moderate-High**
	IN	The AONB designation results in additional sensitivity due to the high scenic value and sensitivities associated with recreational use of the landscape. There are also particular sensitivities associated with Conservation Areas in the AONB: the Glaven Valley, Warham, Stiffkey, Binham, Wighton and Gimingham. Sensitivity to any cable routing across valleys within the AONB is also likely to be high.	**High**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	**OUT**	The presence of some steep slopes, human scale features, frequency of cultural heritage assets, sense of tranquillity, intactness/ time depth, relatively high scenic quality and frequent cultural heritage interest increase sensitivity to any form of modern, industrial-type development. There may be some opportunities to find locations for development at the lower end of the typical size range in areas that have a degree of enclosure/ containment. Typical sensitivity is therefore **moderate-high**. In shallower upper valley locations, where screening potential is more limited, and in locations where steeper slopes would necessitate significant earthworks to create level sites, sensitivity is likely to be higher. Sensitivity to developments at the upper end of the typical size range will also be higher.	**Moderate-High**
	IN	The AONB designation results in additional sensitivity due to the high scenic value and sensitivities associated with recreational use of the landscape. There are also particular sensitivities associated with Conservation Areas in the AONB: the Glaven Valley, Warham, Stiffkey, Binham, Wighton and Gimingham. Sensitivity to any industrial-type renewable energy developments in AONB valley locations is likely to be high.	**High**
Reservoirs (typical size range 2 – 5ha)	**OUT**	The relatively small scale mosaic of valley floor landscapes, the naturalistic character of landscape elements, frequency of cultural heritage assets, the sense of tranquillity, intactness/ time depth associated with the valleys and relatively high scenic quality all increase sensitivity to reservoir development, while the sense of enclosure on lower valley sides/ floor reduce sensitivity in localised areas. Overall, typical sensitivity of this landscape type to reservoir development is **moderate-high**. Sensitivity is likely to be higher on visually exposed valley-side locations where the sloping terrain would require more significant earthworks to facilitate water storage, but lower where slopes are shallower and tree cover provides visual containment.	**Moderate-High**
	IN	The AONB designation results in additional sensitivity due to the high scenic value and sensitivities associated with recreational use of the landscape. The steeper slopes of the upper reaches of the Glaven and Stiffkey valleys are likely to make valley-side earthworks more intrusive.	**High**

Settled Farmland



Settled Farmland

Baseline Landscape

Introduction to the Landscape Character Type

The Settled Farmland Type is characterised by flat or very flat arable landscapes, which are bordered by woodland fringing the adjacent Broads Valleys. Settlement is a strong feature of the landscape, as dispersed farmsteads or in villages and the market town of Stalham.

There are no landscape designations within the LCT; however, it is bounded on three sides by The Broads, which have the status of a national park.

Component Character Areas

There is one continuous area of Settled Farmland in North Norfolk, in the south-east of the District:

SF1 – Stalham, Ludham and Potter Heigham

Key Characteristics[19]

- Flat or very flat terrain, with watercourses limited to running ditches
- A rural landscape in which arable land use predominates with small pockets of pasture around settlement and some farmsteads
- An open landscape with large fields bounded by ditches, grassed banks and low hedges
- Low woodland cover throughout the Type
- Mature oak trees within roadside banks are prominent features
- Settlement comprises a market town, rural villages and dispersed farmsteads
- A diverse road network, including the dominant A149
- A strong visual relationship with the adjacent Broads
- Moderately long views and church towers as landmark features

Valued features and qualities

- Strong rural character with a sense of remoteness and tranquillity
- Highly productive farmland
- Remnant semi-natural habitats
- Historic market towns and villages with vernacular buildings
- Rural lanes
- Long views punctuated by distinctive skyline features including numerous church towers
- Treed horizons

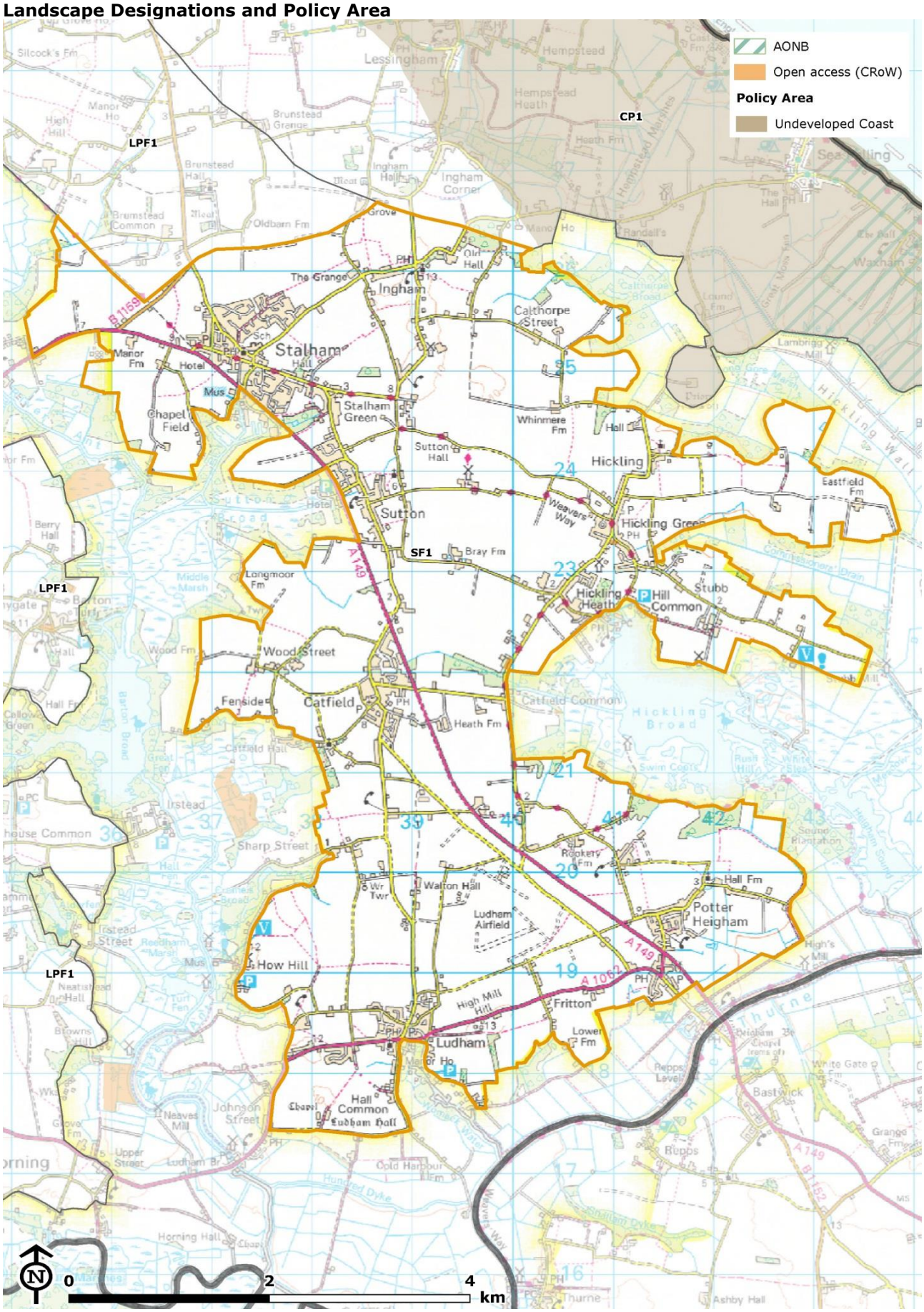
[19] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

Settled Farmland

Location of SF1

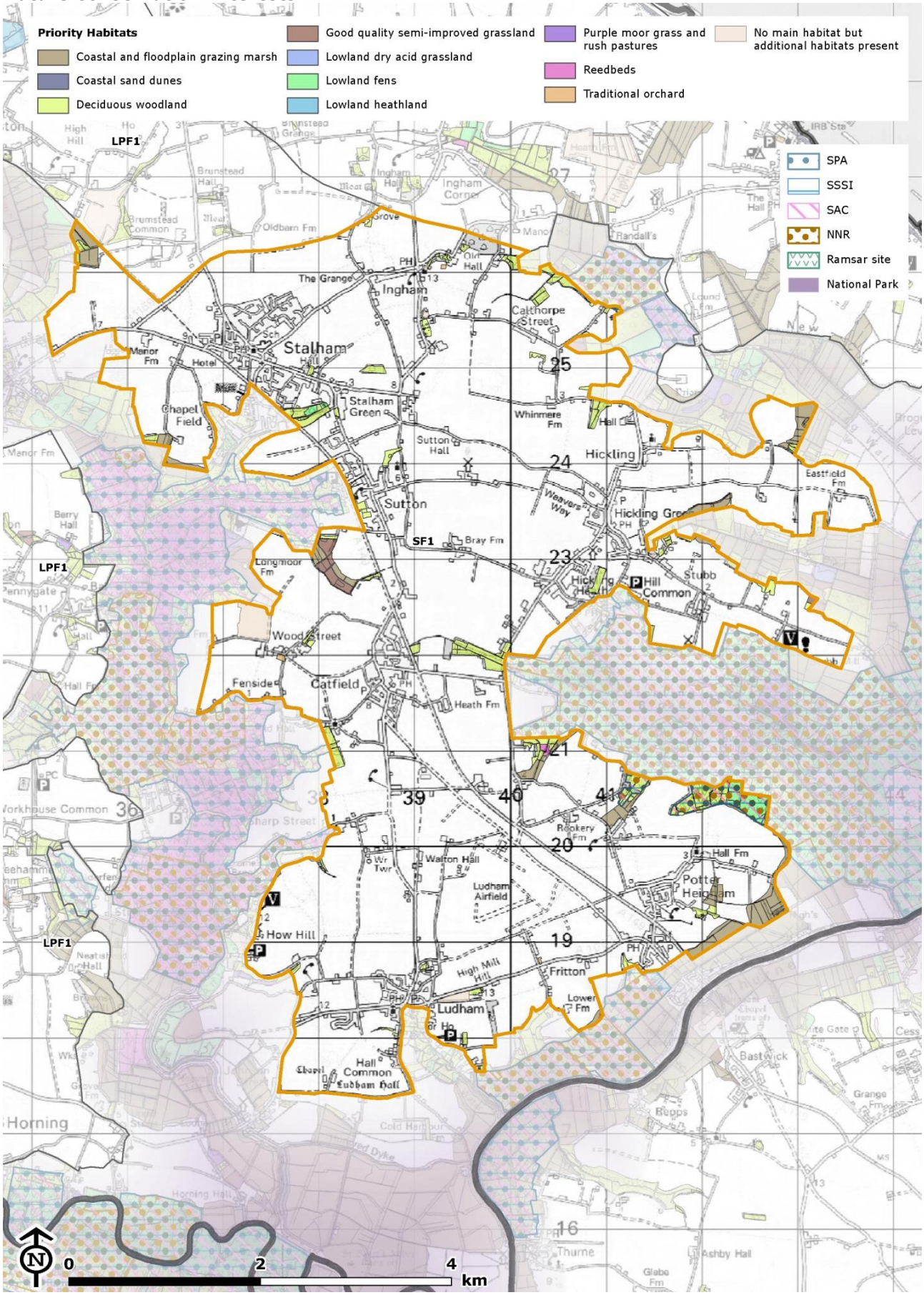
Settled Farmland

Landscape Designations and Policy Area



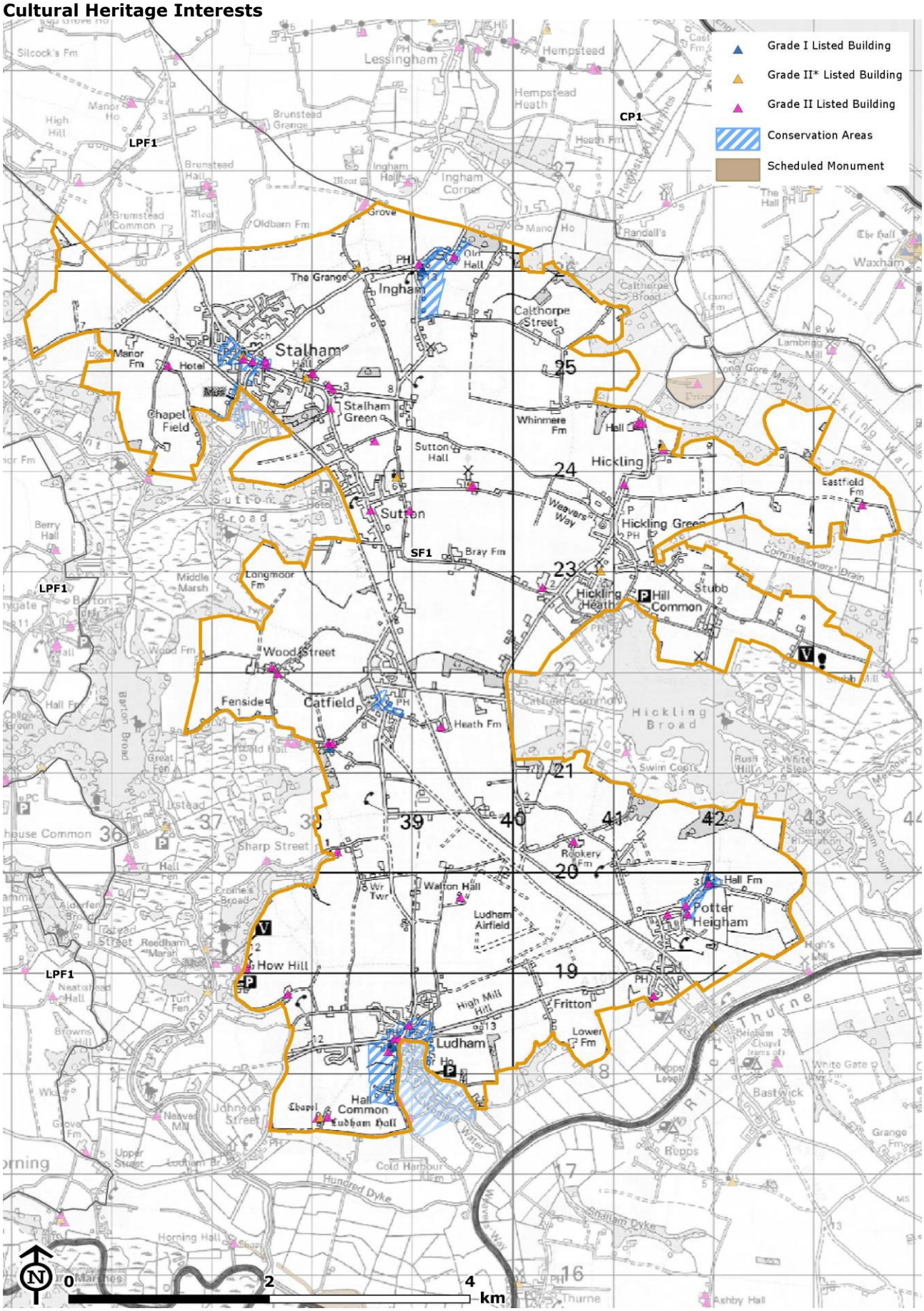
Settled Farmland

Nature Conservation Interests



Settled Farmland

Cultural Heritage Interests



Settled Farmland

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Settled Farmland LCT against the sensitivity criteria which have been predetermined for the renewable energy development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Flat or very flat terrain, with most of the area between 1m and 7m above sea level. Generally undeveloped skylines, formed by arable farmland and Broads woodland, occasionally punctuated by historic landmark features or interrupted by settlement fringes. The flat landform lowers sensitivity to solar farms and onshore cable routes, which are less easily perceived in flat landscapes, whilst the presence of historic landmark features on a largely undeveloped skyline outweighs the flat landform to increase sensitivity to taller structures such as wind turbines. Reservoir embankments are less easily integrated into flat landscapes, therefore sensitivity is increased for this criterion.	↑	↑	↑	↓	↓	–	–	–	↑
Landcover	Predominantly arable farmland with very low level of woodland relative to other LCTs, which does not strongly influence sensitivity in either direction, with the exception of onshore cable routes, as arable is easier to restore above cable trenches than more naturalistic landcover. Small areas of remnant pasture fields around older settlements, and wet woodland and grazing marsh around the Broads fringes, will have higher sensitivity to all development types due to their more naturalistic qualities and ecological value.	–	–	–	–	↓	–	–	–	–

Settled Farmland

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of openness/ enclosure	Landscape has a typically open and exposed character due to the combination of the flat landform, arable landcover, large field sizes, and field boundaries comprising low banks, ditches or low hedges. This relative lack of visual screening/containment generally increases sensitivity to all development types. The sense of enclosure is locally increased in close proximity to the treed horizons of the neighbouring Broads, which will correspondingly lower sensitivity for this indicator.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern & complexity	The large, regular arable fields and low field boundaries increase the apparent scale of the landscape; however, this is counterbalanced by the semi-dispersed settlement pattern of traditional villages, farmsteads and the town of Stalham, with historic buildings and smaller remnant pasture fields, and scattered roadside/field oaks, which introduce frequent human-scale features into the landscape. Therefore, sensitivity to all relevant development types is not strongly influenced in either direction by this criterion.	–	–	–	–	✕	–	–	–	–
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	A relative sense of tranquillity, remoteness and traditional rurality prevails in areas of quiet farmland away from the main roads. There is, however, a general sense of modern human influence throughout much of this landscape due to the presence of busy roads, intensive arable agriculture and modern built form associated with farms, industry and some settlement fringes. This results in an overall neutral influence on sensitivity to all development types. Localised areas of increased susceptibility exist around the	–	–	–	–	–	–	–	–	–

Settled Farmland

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	Broads fringes; notably in the more remote east of the LCT, beyond Hickling.									
Time depth / historical continuity	Historic landscape types within the LCT are dominated by 20th century agriculture, which generally lowers sensitivity to all types of development, except in the vicinity of the historic settlements, which display a stronger sense of time depth.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	There are no designated landscapes within the LCT; however, it has a close relationship with the Broads, which surrounds the LCT on three sides. In most instances views of the Broads landscape from the LCT are restricted by its extensively wooded fringes, although there are more open views where woodland does not occur on the boundary. The AONB is also located to the east of the LCT, beyond the Broads. In some locations the separation distance from the AONB is under 1km. The proximity to these nationally valued landscape designations will increase the overall sensitivity of the landscape to taller developments, such as larger wind turbines, which may be more widely visible on the otherwise undeveloped skyline within the Broads and the AONB, and be likely to adversely affect their special qualities of natural beauty, including the undeveloped character, sense of remoteness and tranquillity. Sensitivity to all other development types may also be locally increased in close proximity to the boundary of the Broads National Park, where the special qualities may be similarly affected.	↑	↑	–	–	–	–	–	–	–

Settled Farmland

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Other indicators of value	<u>High scenic quality:</u> The landscape displays a moderate scenic quality by virtue of the combination of attractive historic vernacular settlements, treed horizons and remnant field/roadside oaks and hedgerows, which is counterbalanced by the extensive, flat and regular arable farmland, and occasional intrusive large-scale modern development and road infrastructure.	–	–	–	–	–	–	–	–	–
	<u>Representativeness:</u> The majority of the LCT is relatively typical arable farmland.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	<u>Rarity:</u> No rare landscape types present.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	<u>Intactness</u> Intactness of the landscape has been adversely affected by 20th century intensive agriculture and associated hedgerow removals.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	<u>Nature conservation & cultural heritage interests:</u> Heritage assets are relatively limited and tend to be concentrated within and around the settlements, including Conservation Areas (Ludham, Catfield, Potter Heigham, Stalham and Ingham) and isolated listed buildings including churches (e.g. Holy Trinity, Ingham [Grade I], farmhouses and Hickling and Sutton windmills).	–	–	–	–	–	–	–	–	–
	Nature conservation designations are extremely limited throughout the majority of the LCT, being restricted to very small incursions of the adjacent Broads designations (NNR, SPA and SAC), which extend marginally beyond	↓	↓	↓	↓	↓	↓	↓	↓	↓

Settled Farmland

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	the Broads Authority boundary into eastern parts of the LCT. Given the very high value of these designations, sensitivity will be significantly increased to all forms of development that may impact on these small, discrete areas, whilst typical sensitivity in the remainder of the LCT will be lowered. Recreational value Not an area of notable recreational valueNo National Trails present. Two small, isolated areas of Open Access Land (commons). The Weaver's Way recreational route crosses the LCT. Literary / artistic associations Ingham church was the subject of a painting by renowned Norfolk landscape painter John Sell Cotman (1782-1842); however, this association does not add significant value to the Settled Farmland landscape for the purposes of this study.	–	–	–	–	–	–	–	–	–

Settled Farmland

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Localised areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	Reason for judgement	Typical Sensitivity
Large scale wind turbines, (up to 80m hub height)	Typical sensitivity to large scale wind turbines is ***high***: • The flat landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low nature conservation interest (away from the Broads fringes) reduce sensitivity to large scale wind turbines. • However, this is outweighed by the open, exposed and rural character, generally undeveloped skylines, punctuated by historic features, and the proximity to and frequent intervisibility with the Broads, which all increase sensitivity, particularly to the largest scale of turbine. Sensitivity is likely to be particularly high: • Where there is strong visibility of turbines on the skyline from within the designated landscapes (the Broads and the AONB), and where their identified special qualities (notably the undeveloped character, sense of remoteness and tranquillity) would likely be affected by the development type; and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham), and/or where this scale of turbine may dominate landmark skyline features, such as church towers.	**High**
Medium scale wind turbines, (up to 60m hub height)	Typical sensitivity to medium scale wind turbines is ***moderate-high***: • The flat landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low nature conservation interest (away from the Broads fringes) reduce sensitivity to medium scale wind turbines. • However, this is outweighed by the open, exposed and rural character, generally undeveloped skylines, punctuated by historic features, and the proximity to and frequent intervisibility with the Broads, which all increase sensitivity. Overall, sensitivity to this scale of turbine is considered to be moderate-high. Sensitivity is likely to be higher: • Where there is strong visibility of turbines on the skyline from within the designated landscapes (the Broads and the AONB), and where their identified special qualities (notably the undeveloped character, sense of remoteness and tranquillity) would likely be affected by the development type; and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham), and/or where this scale of turbine may dominate landmark skyline features, such as church towers.	**Moderate-High**
Small scale wind turbines, (up to 30m hub height)	Typical sensitivity to small scale wind turbines is ***moderate***: • The flat landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low nature conservation interest (away from the Broads fringes) reduce sensitivity to small scale wind turbines. • However, the open, exposed and rural character, generally undeveloped skylines, punctuated by historic features, and the proximity to and frequent intervisibility with the Broads, all increase sensitivity so that overall this is moderate. Sensitivity is likely to be particularly high: • Where there is strong intervisibility with designated landscapes of particularly high scenic quality (the Broads and the AONB), whose identified special qualities would be affected by the development type; and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham), and/or where turbines may compete with landmark skyline features, such as church towers.	**Moderate**

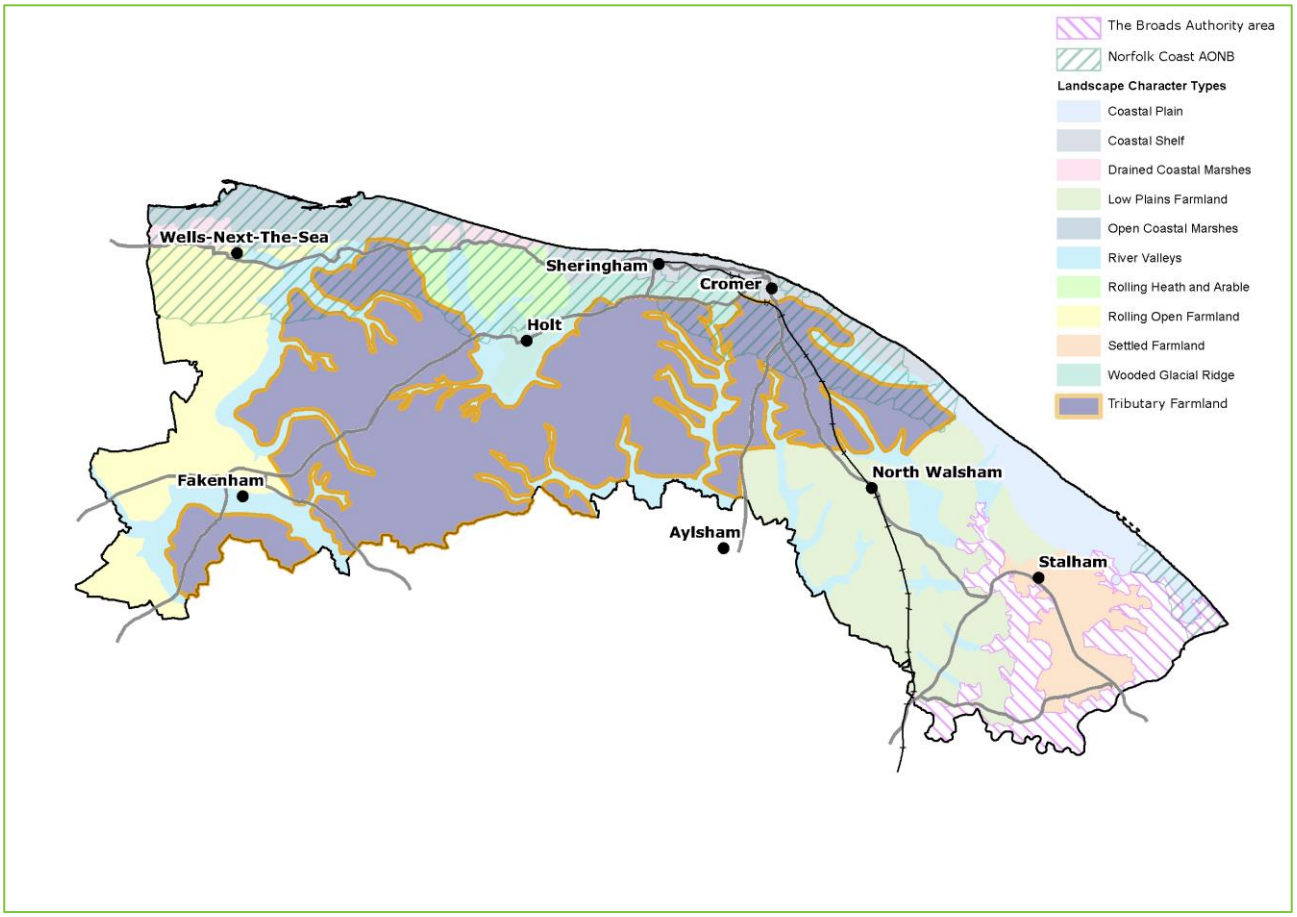
Settled Farmland

Development Type	Reason for judgement	Typical Sensitivity
	Sensitivity is likely to be lower: • In localised areas of lower intervisibility with the designated landscapes; • In proximity to modern larger-scale human influence/development, such as modern farm complexes and large storage sheds, main roads, Catfield industrial estate and Ludham gas depot.	
Field-scale solar PV development (above 10 hectares site area)	Typical sensitivity to field-scale solar PV development is ***moderate***: • The flat landform, relatively large landscape scale, regular landscape pattern of arable fields and relatively low conservation interest (away from the Broads fringes) reduce sensitivity to field-scale solar PV development. • However, the open, exposed and rural character, frequent human-scale features, including historic landmarks, and the proximity to the Broads, increase sensitivity. Sensitivity is likely to be particularly high: • Where intervisibility between field-scale solar PV development and a designated landscape may exist and affect its high scenic quality/special qualities; and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham). Sensitivity is likely to be lower: • Where there is lower or no intervisibility with the designated landscapes; and • Where localised presence of woodland/higher hedgerows or existing modern larger-scale development/human influence may afford greater visual screening and containment of solar panels, and/or be less likely to affect rural character.	Moderate
Onshore cable routes for offshore wind farms (30m – 80m clearance)	Typical sensitivity to onshore cable routes is ***moderate***: • The regular landscape pattern of arable fields and relatively low prevalence of cultural heritage, wildlife and earth science designations reduce sensitivity to onshore cable routes. • However, the open, exposed and rural character increase sensitivity. Sensitivity is likely to be particularly high: • Around the Broads fringes, where naturalistic landcover is more frequent, nature conservation value is higher and special qualities of the Broads (including valued habitats, sense of remoteness and tranquillity) may be affected by proximity to onshore cable routes; and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham). Sensitivity is likely to be lower: • Within the large areas of modern arable farmland (away from the Broads fringes) of low nature conservation interest.	Moderate
Commercial battery storage schemes, Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	Typical sensitivity to industrial type developments is ***moderate***: • Across the majority of the landscape susceptibility and value criteria do not strongly influence sensitivity in either direction in relation to these development types, except the open, exposed and rural character, generally undeveloped skylines punctuated by historic features, and the proximity to and occasional intervisibility with the Broads, which all increase sensitivity and the lack of significant time depth across this predominantly modern arable landscape, which reduces sensitivity. Sensitivity is likely to be higher: • In proximity to the Broads/AONB, from which views may exist of the built form associated with industrial type developments (particularly taller elements/features) within the LCT, and be likely to affect their special qualities (e.g. undeveloped character, sense of remoteness and tranquillity); and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham), and/or where such development may compete with landmark skyline features, such as church towers. Sensitivity is likely to be lower: • Where there are no views of these forms of development from the designated	Moderate

Settled Farmland

Development Type	Reason for judgement	Typical Sensitivity
	landscapes; and • Where localised presence of woodland/higher hedgerows or existing modern larger-scale development/human influence may afford greater visual screening and containment of built form, and/or be less likely to affect rural character.	
Reservoirs (typical size range 2 – 5ha)	Typical sensitivity to reservoirs is ***moderate****:* • The generally large, regular arable fields increase the apparent scale of the landscape, which reduces sensitivity to reservoirs as they can be more easily accommodated within single fields. However, this is counterbalanced by the flat landform and strong sense of openness, with limited hedgerow screening, which generally increases sensitivity to reservoirs, as their embankments can be less naturally integrated into the surrounding landscape, making them appear more prominent. Sensitivity is likely to be higher: • In proximity to the Broads, from which views may exist of reservoir embankments within the LCT, and where these would be likely to affect their special qualities (e.g. undeveloped character, sense of remoteness and tranquillity); and • In the vicinity of Conservation Areas (e.g. Ludham, Ingham, Stalham and Potter Heigham), and/or where such development may compete with landmark skyline features, such as church towers. Sensitivity is likely to be lower: • Where there are no views of this form of development from the designated landscapes; and • Where localised presence of woodland/higher hedgerows or existing modern larger-scale development/human influence may afford greater visual screening and containment of reservoirs, and opportunities to integrate new planting screening on embankments without adversely affecting existing landscape character.	**Moderate**

Tributary Farmland



Tributary Farmland

Baseline Landscape

Introduction to the Landscape Character Type

The Tributary Farmland Type is characterised by generally open and rolling/undulating rural farmland with some elevated plateau areas and a rich diversity of minor settlement, woodland and historic estates. As the name suggests, it forms the catchment area for a number of watercourses feeding into the main river valleys of the Stiffkey, Glaven and Bure. Two airfields are associated with flatter areas in the west of the Type (these are assessed separately and therefore excluded from consideration here).

Northern parts of the LCT fall within the Norfolk Coast AONB and a very small, discrete coastal area around Morston falls within the North Norfolk Heritage Coast. The coastal edge of the LCT also forms part of North Norfolk's Undeveloped Coast policy area.

Component Character Areas

There is one continuous area of Tributary Farmland in North Norfolk:

TF1 – North Norfolk Tributary Farmland

Key Characteristics[20]

- Undulating terrain dissected by small river valleys with elevated, and occasionally expansive, open plateau areas
- A rural landscape in which arable land use predominates with pasture more common around the edges of villages and in proximity to the river valleys
- Hedgerows and mature hedgerow trees are frequent features within the landscape
- Woodland cover is locally prominent across the area in a variety of forms
- Historic parks and estates are a distinctive feature of the Landscape Type
- Settlement is typically rural villages with dispersed large houses and farmsteads in the wider landscape
- A network of rural lanes linking settlements
- Strong visual relationship between the valleys that dissect the landscape**, the coast around Morston and the Wooded Glacial Ridge to the north**

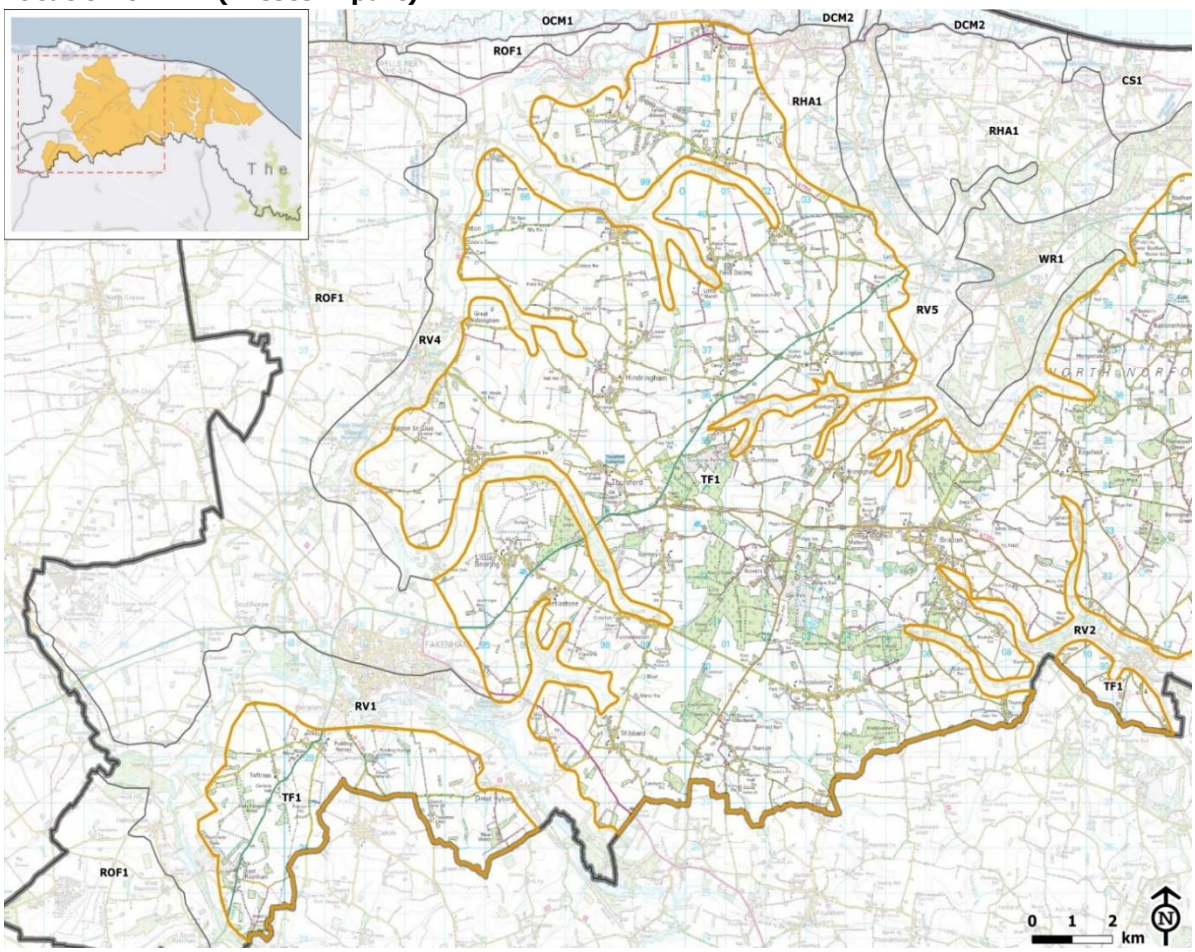
Valued features and qualities

- Strong rural character with a sense of remoteness and tranquillity
- Historic parklands
- Historic field patterns
- Woodland cover, hedgerows and hedgerow trees
- Remnant semi-natural habitats
- Rural historic villages and vernacular buildings
- Rural lanes
- Long range views and prominent landscape features

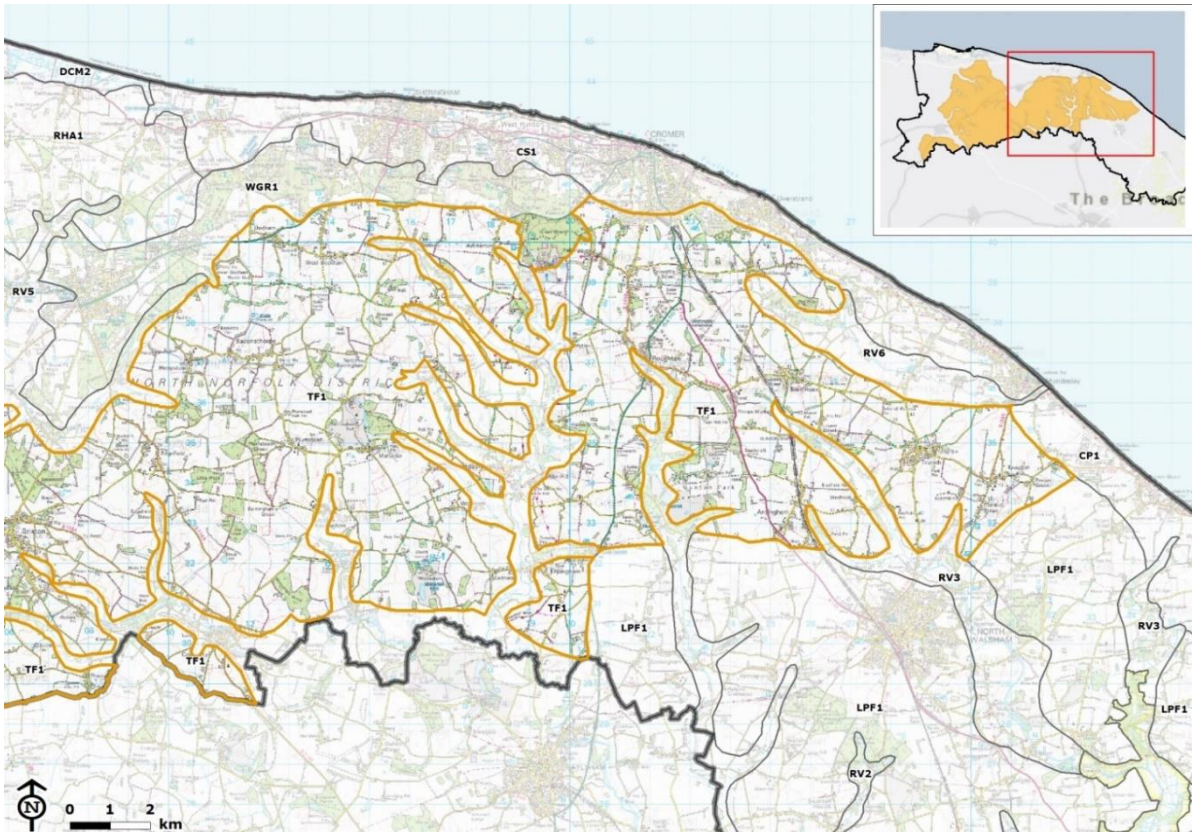
[20] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

Tributary Farmland

Location of TF1 (Western part)

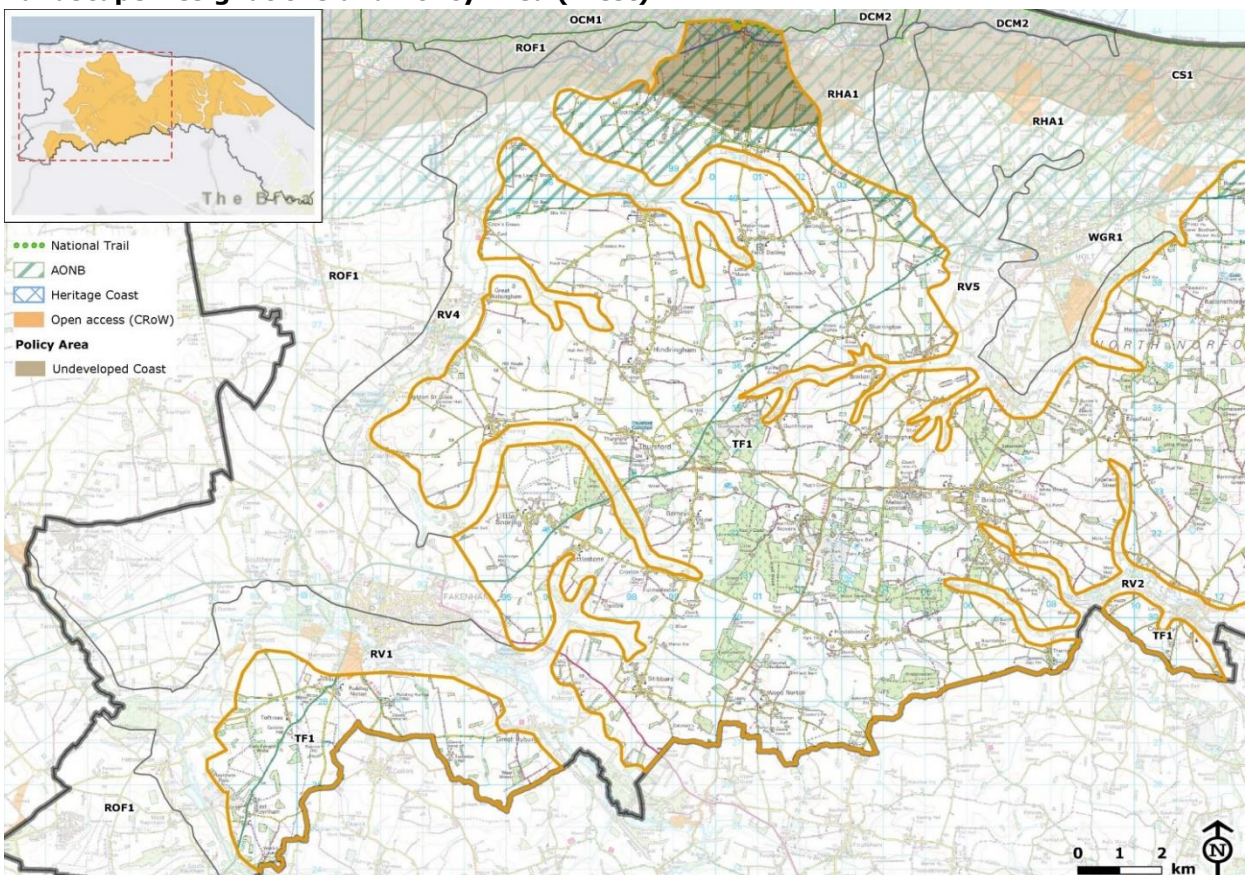


Location of TF1 (Eastern part)

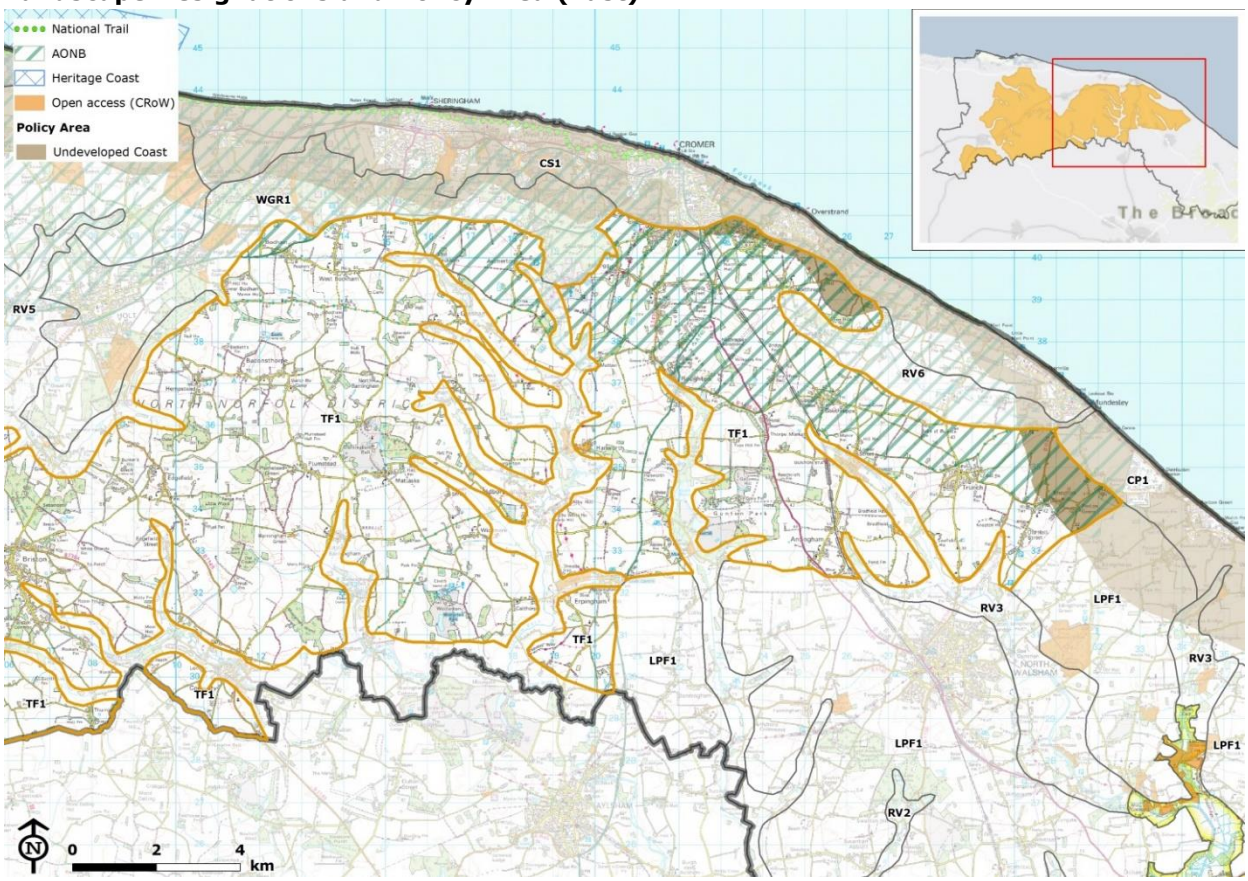


Tributary Farmland

Landscape Designations and Policy Area (West)

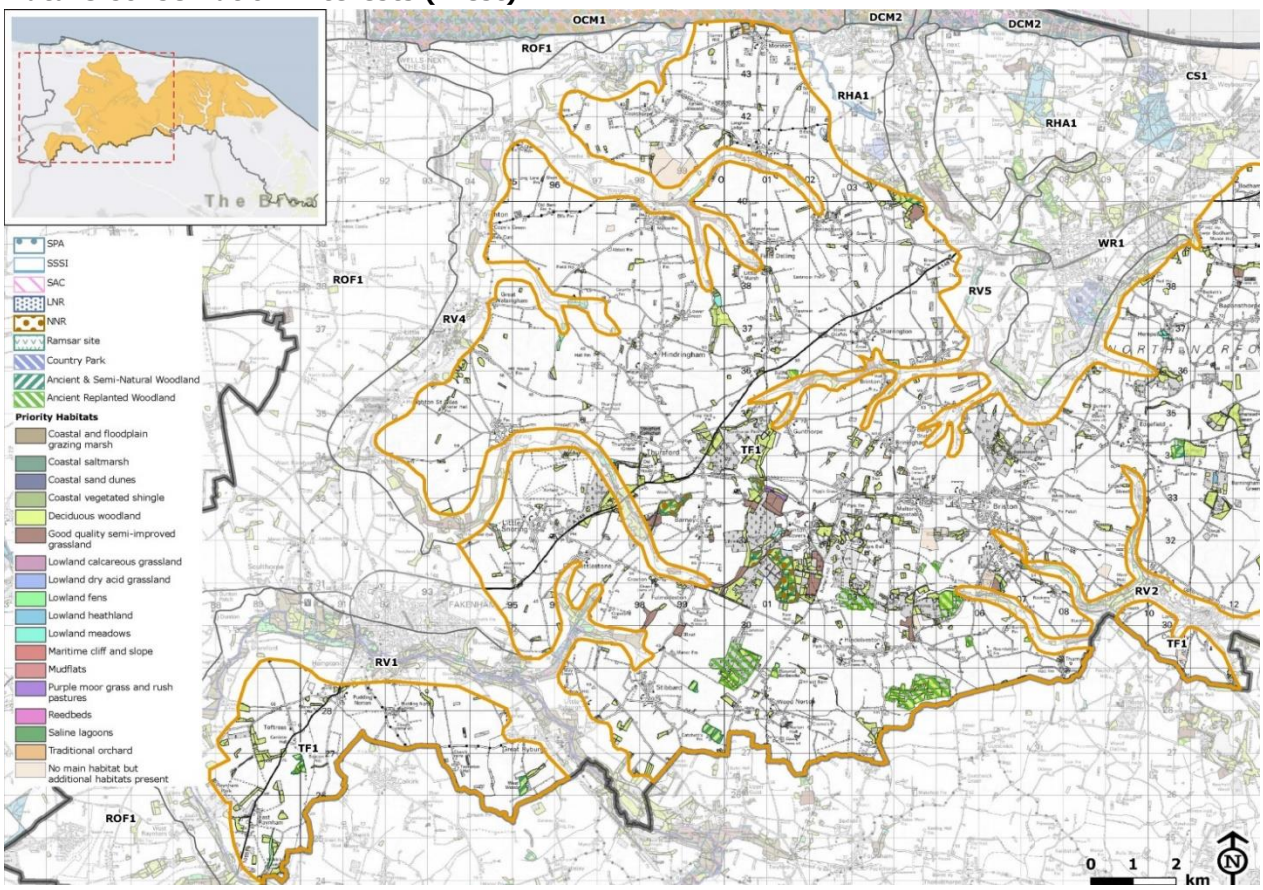


Landscape Designations and Policy Area (East)

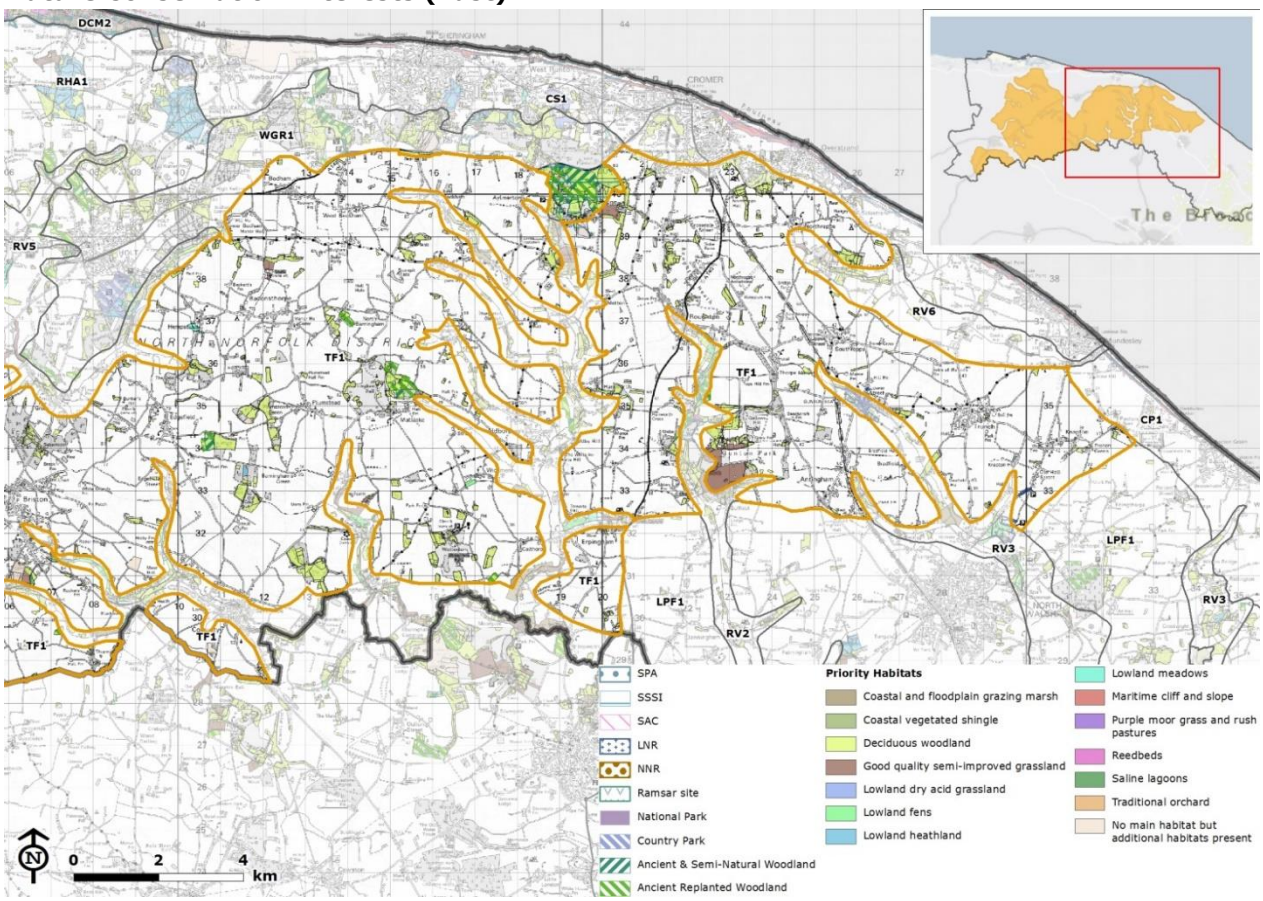


Tributary Farmland

Nature Conservation Interests (West)

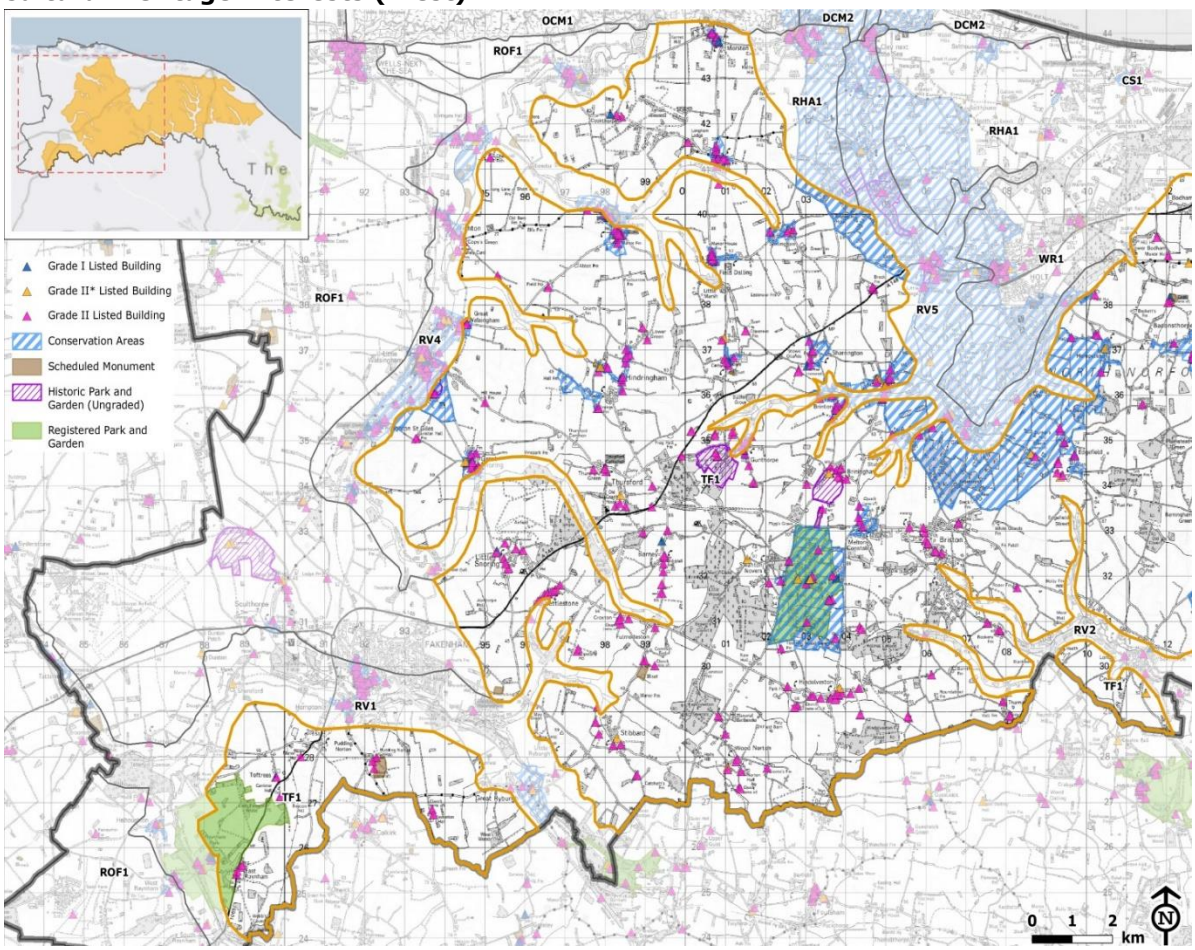


Nature Conservation Interests (East)

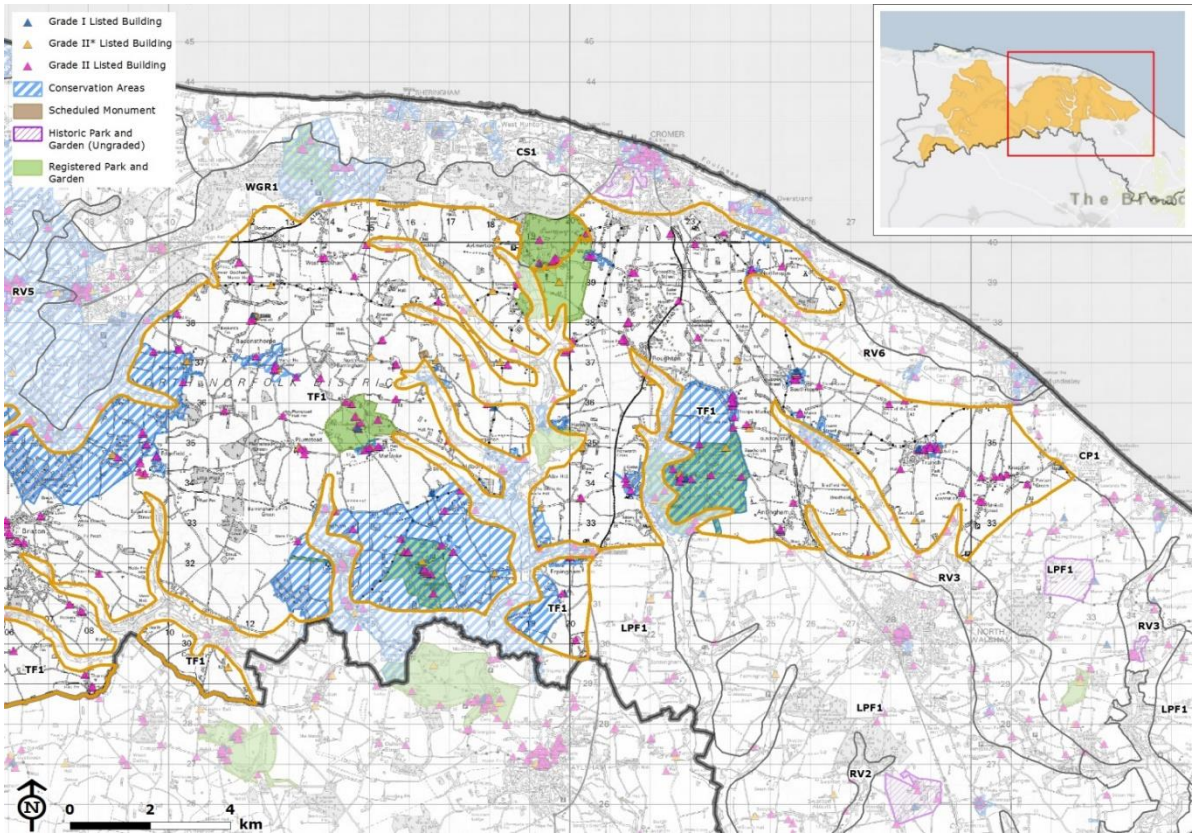


Tributary Farmland

Cultural Heritage Interests (West)



Cultural Heritage Interests (East)



Tributary Farmland

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Tributary Farmland LCT against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Undulating terrain dissected by small river valleys with elevated, and occasionally expansive, open plateau areas. Generally undeveloped skylines formed by farmland and woodland, occasionally punctuated by historic landmark features, notably church towers. Localised areas south of Fakenham contain modern vertical structures on the skyline, in the form of electricity pylons. The influence of the adjacent Wooded Glacial Ridge Type in framing a large part of the northern boundary of the LCT and forming a wooded horizon is an important component feature of this LCT. The varied landform results in localised areas of higher and lower sensitivity to lower-lying developments such as solar farms, onshore cables and cable relay stations, battery storage schemes, AD plants and reservoirs, according to the degree of slope and landform screening, whilst the presence of historic landmark features on a largely undeveloped skyline generally increases susceptibility to taller structures such as wind turbines.	↑	↑	↑	–	–	–	–	–	–
Landcover	Predominantly arable farmland with pasture around settlement edges and valleys, and frequent woodland, including planted woodlands associated with historic estates and their designed landscapes and some extensive semi-natural ancient woodlands. The dominant arable/ pasture landcover lies	–	–	–	–	↓	–	–	–	–

Tributary Farmland

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	in the middle of the sensitivity spectrum for the majority of development types except for onshore cable routes where sensitivity is reduced as this type of landcover is able to recover from the temporary laying phase. Areas of naturalistic landcover, such as ancient woodland and semi-improved grassland, will have higher sensitivity to all development types.									
Sense of openness/ enclosure	A generally open character, with low managed hedgerow boundaries to the arable fields. This openness is increased in the elevated plateau areas, affording long uninterrupted views towards the coast, the Wooded Glacial Ridge and inland. Linear shelter belts, areas of woodland, hedgerow trees and higher hedges, often associated with older field boundaries, historic estates and river valleys, provide greater enclosure. In the extensive areas of generally open character, the sense of openness and relative lack of visual screening/ containment increases sensitivity to any new development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Scale (landform and component features), landscape pattern & complexity	Fields are generally of a medium to large size which reduces sensitivity to large scale developments such as larger wind turbines and reservoirs. However, there is variation in both size and shape, resulting in a more intricate, small scale landscape pattern particularly in proximity to settlements which increases sensitivity to larger scale developments. In addition, the presence of vernacular villages, narrow rural lanes, farmsteads and historic estates also introduces frequent human-scale features which increase sensitivity to larger scale developments such as the larger wind energy developments or larger solar farms and reservoirs. Overall, these	–	–	–	–	×	–	–	–	–

Tributary Farmland

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	scale factors balance each other out for the larger scale developments (larger wind turbines, solar farms and reservoirs). The varied scale of the landscape does not influence sensitivity one way or the other for the other developments such as smaller scale turbines and cable relay stations, battery storage or AD plants.									
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	A relative sense of tranquillity, remoteness and traditional rurality prevails in large expanses of quiet farmland, due to the general absence of larger settlements and limited main roads, and is reinforced by the Undeveloped Coast policy area. These characteristics are locally reduced in some areas of greater modern human influence, such as larger farm complexes, but overall this criterion results in increased sensitivity to all forms of development.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	The more common historic landscape types within the LCT include relatively modern 18th, 19th and 20th century agricultural enclosures. However, there is also a wide variety of other types, including pre-18th century co-axial enclosures, commons, ancient woodland and numerous areas of formal and informal parkland associated with historic estates, plus vernacular villages, all of which display a stronger time depth and historical continuity. These areas, which occur frequently across the LCT, will exhibit locally increased sensitivity and therefore this criterion results in increased sensitivity to all forms of development.	↑	↑	↑	↑	↑	↑	↑	↑	↑

Tributary Farmland

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The coastal edge of the LCT is within the designated AONB. A smaller coastal area around Morston is also within the defined Heritage Coast. Any of the types of development under consideration in this study have the potential to affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or affecting these areas.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The landscape outside the AONB and Heritage Coast displays a moderate to high scenic quality by virtue of the combination of historic vernacular settlements, treed horizons and remnant field /roadside oaks and hedgerows, which is counterbalanced by the extensive, gently undulating and regular arable farmland. <u>Representativeness:</u> The majority of the LCT is relatively typical arable farmland, although there are a number of notable historic parks which increases sensitivity in those areas. <u>Rarity:</u> Some rare landscape types present (e.g. co-axial enclosures), although these tend to be highly localised, e.g. Wood Norton, Bale, Briston, and therefore could be avoided.	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –	↑ – –

Tributary Farmland

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	<u>Intactness:</u> Intactness of the landscape has been adversely affected by 20th century intensive agriculture and associated hedgerow removals, coupled with areas where hedgerows have not been maintained. However, areas of new/recent hedgerow plantings also exist, and the Type contains some of the most intact areas of designated ancient woodland in Norfolk, and a number of relatively intact historic estates and villages. These balance each other out to a neutral influence on sensitivity (although care will be needed in siting and design). <u>Nature conservation & cultural heritage interests:</u> Heritage assets are frequent, and include numerous Registered Parks & Gardens (, Melton Constable, Gunton Barningham, Mannington, Wolterton), a variety of Conservation Areas, Scheduled Monuments and isolated listed buildings such as churches and farmhouses. Nature conservation designations are scattered across the LCT, and are primarily associated with areas of ancient woodland, including the Swanton Novers NNR and SSSI. Smaller sites include the Paston Great Barn SAC and NNR (on the boundary with the Coastal Plain LCT), and the Knapton Cutting and Southrepps Common Local Nature Reserves. These features together increase sensitivity to all development types. <u>Recreational value:</u> Small, isolated areas of Open Access Land (commons) are scattered across									

Tributary Farmland

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	the LCT, and several recreational routes and other PRoWs cross the LCT, including a very short section of the Norfolk Coast Path where the LCT meets the coast around Morston, but recreational use tends to be more focussed in the adjacent coastal LCTs. <u>Literary / artistic associations:</u> Discrete areas of the Tributary Farmland landscape have a number of literary and artistic associations, including featuring in works by the renowned Norfolk landscape painter John Sell Cotman (1782-1842); poetry by George Barker 'At Thurgarton Church' (1959); and the location (Roughton Heath) where Albert Einstein briefly stayed following his departure from Germany in 1933. Historic parklands also have strong associations with the prominent 18th & 19th Century landscape designer Humphry Repton, who influenced the landscape design at Gunton Hall and , Barningham Hall.	–	–	–	–	–	–	–	–	–

NB Airfields within TF are specifically excluded from the sensitivity assessment at Landscape Character Type level, as these are subject to their own individual assessments within Appendix 2.

Tributary Farmland

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	AONB	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	**OUT**	Although the gently undulating landform, relatively large landscape scale and typically regular landscape pattern of arable fields might reduce sensitivity to large scale wind turbines in some situations, in this case the open, exposed and strongly rural character, prominent and undeveloped skylines, frequent vernacular settlements, cultural heritage and nature conservation designations, and relatively high scenic quality with long uninterrupted views affording extensive intervisibility throughout this large LCT all increase sensitivity to the extent that the typical sensitivity to this scale of turbine is considered to be high.	**High**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB, which in this LCT is characterised by areas of particularly open, elevated and undeveloped character with a strong relationship with the sea, contributing to the AONB's nationally valued scenic qualities and natural beauty, which ensure the highest level of sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be high in the area of TF that falls within the AONB. In addition, the Registered parkland at Melton Constable, Barningham Hall, Gunton Hall, Raynham Hall and Mannington and Wolterton, and the numerous Conservation Areas within the Type also have cultural heritage / nature conservation sensitivities associated with them.	**High**
Medium scale wind turbines, (up to 60m hub height)	**OUT**	Although the gently undulating landform, relatively large landscape scale and typically regular landscape pattern of arable fields might reduce sensitivity to medium scale wind turbines in some situations, in this case the open, exposed and strongly rural character, prominent and undeveloped skylines, frequent vernacular settlements, cultural heritage and nature conservation designations, and relatively high scenic quality with long uninterrupted views affording extensive intervisibility throughout this large LCT, all increase sensitivity to the extent that overall, typical sensitivity to this scale of turbine is considered to be high.	**Moderate-High**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB. In addition, the particularly open, elevated and undeveloped character with a strong relationship with the sea contribute to the AONB's nationally valued scenic qualities and natural beauty, which ensure the highest level of sensitivity. Typical sensitivity to this scale of turbine is considered to be high in the area of TF that falls within the AONB. In addition, the registered parkland at Melton Constable, Barningham Hall, Gunton Hall, Raynham Hall and Mannington and Wolterton, and the numerous Conservation Areas also have cultural heritage / nature conservation sensitivities associated with them.	**High**
Small scale wind turbines, (up to 30m hub height)	**OUT**	Although the gently undulating landform, relatively large landscape scale and typically regular landscape pattern of arable fields might reduce sensitivity to small scale wind turbines in some situations, in this case the open, exposed and strongly rural character, prominent and undeveloped skylines, frequent vernacular settlements, cultural heritage and nature conservation designations, and relatively high scenic quality with long uninterrupted views affording extensive intervisibility throughout this large LCT all increase sensitivity to the extent that typical sensitivity to this scale of turbine is considered to be moderate. There are localised areas of higher sensitivity in proximity to the river valleys which dissect this landscape, in proximity to cultural heritage designations such as registered parks and gardens and where they may be seen in combination with landmark church towers.	**Moderate**

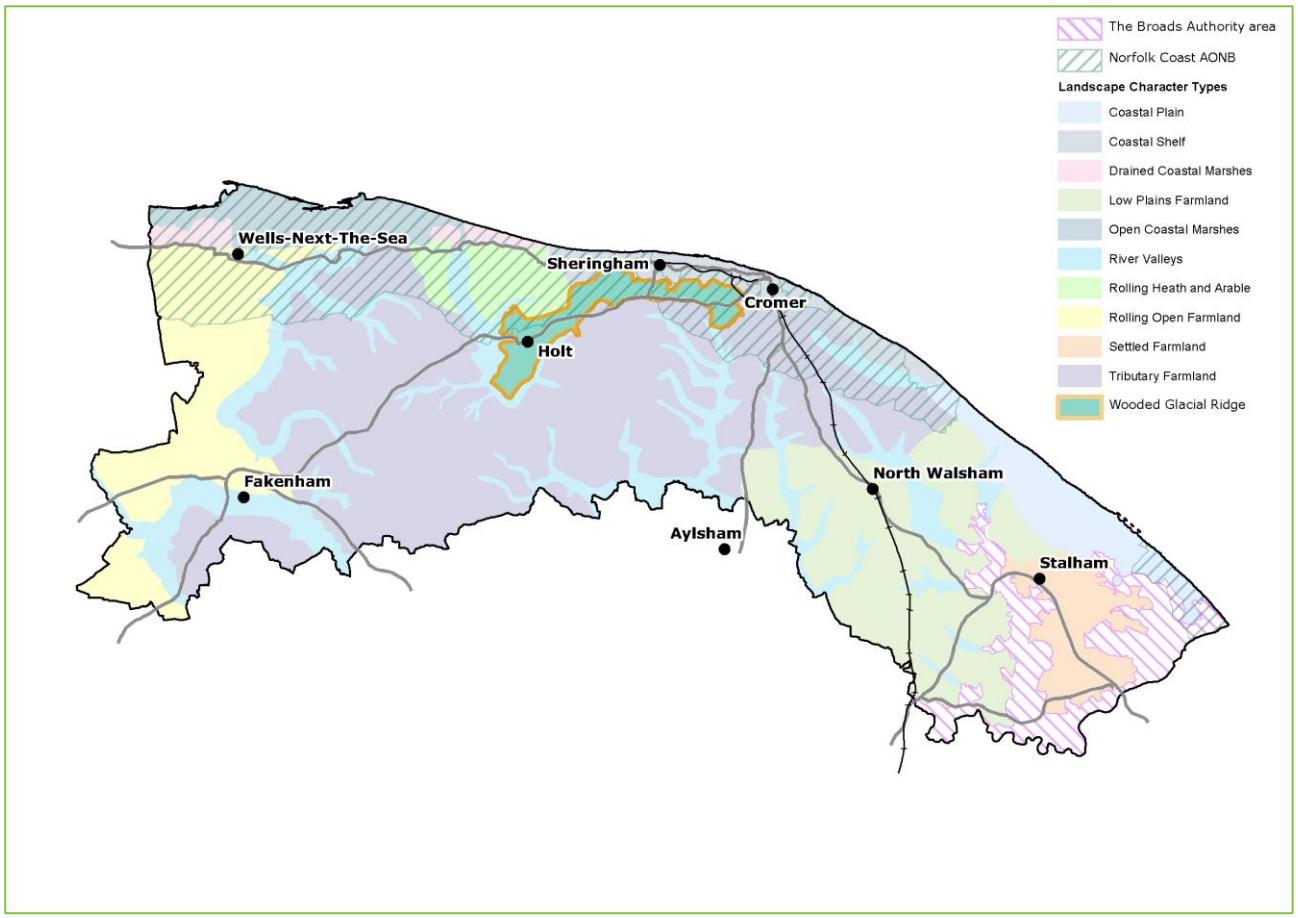
Tributary Farmland

	IN	The landscape characteristics and attributes outlined above apply equally within the AONB. In addition, the particularly open, elevated and undeveloped character with a strong relationship with the sea contribute to the AONB's nationally valued scenic qualities and natural beauty, which ensure the highest level of sensitivity. Typical sensitivity to this scale of turbine is considered to be high in the area of TF that falls within the AONB. In addition, the registered parkland at Melton Constable, Barningham Hall, Gunton Hall, Raynham Hall and Mannington and Wolterton, and the numerous Conservation Areas also have cultural heritage / nature conservation sensitivities associated with them.	**High**
Field-scale solar PV development (above 10 hectares site area)	**OUT**	The gently undulating landform, relatively large landscape scale and typically regular landscape pattern of arable fields reduce sensitivity to field-scale solar PV development. However, the open, exposed and strongly rural character, with areas of visually prominent slopes and undeveloped skylines, frequently low managed hedgerow field boundaries affording limited opportunities for localised screening, and relatively high scenic quality, all increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate-high and any development would need to be sited with care. Localised areas of lower sensitivity include those where flatter landform in combination with existing mature linear shelter belts, woodland blocks and higher hedgerows may afford greater visual screening and containment of solar panels.	**Moderate-High**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased further within the AONB due to the nationally valued scenic qualities and natural beauty of the landscape (the presence of PV panels could conflict with the undeveloped and naturalistic qualities of the AONB). Typical sensitivity to field-scale solar PV development is considered to be high in the area of TF that falls within the AONB. In addition, the registered parkland at Melton Constable, Barningham Hall, Gunton Hall, Raynham Hall and Mannington and Wolterton, and the numerous Conservation Areas also have cultural heritage / nature conservation sensitivities associated with them.	**High**
Onshore cable routes for offshore wind farms (30m – 100mclearance)	**OUT**	The relatively large landscape scale, regular landscape pattern and predominant landcover of arable fields reduce sensitivity to onshore cable routes. However, the presence of visible slopes, exposed and strongly rural character with long uninterrupted views, frequent vernacular settlements, cultural heritage and nature conservation designations (in particular the extensive and intact ancient woodlands), and relatively high scenic quality increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate, subject to careful routeing to avoid the more sensitive areas. Two existing cable routes (Sheringham Shoal and Dudgeon) already traverse this LCT (from Bodham to Saxthorpe) and another route (Hornsea Project Three) is in the planning stages. Such national infrastructure projects will need to be facilitated, whilst ensuring that the valued attributes and sensitivities of each landscape Type are upheld... Localised areas of higher sensitivity relate to nature conservation and cultural heritage designations (e.g. Swanton Novers NNR & SSSI, and registered parkland at Melton Constable, Gunton, Barningham and Wolterton), and upper visible slopes.	**Moderate**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased further due to the nationally valued scenic qualities and natural beauty associated with this area (cable laying could affect the undeveloped coastal character, sense of remoteness and tranquillity for a temporary period). Overall, typical sensitivity to underground cables is considered to be moderate-high in the areas of TF that fall within the AONB. In addition, the registered parkland at Melton Constable, Barningham Hall, Gunton Hall, Raynham Hall and Mannington and Wolterton, and the numerous Conservation Areas also have cultural heritage / nature conservation sensitivities associated with them.	**Moderate-High**

Tributary Farmland

Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	**OUT**	The gently undulating landform, relatively large landscape scale, typically regular landscape pattern of arable fields and presence of some forestry plantations providing associated enclosure reduce sensitivity to battery storage schemes, cable relay stations/ sub-stations and AD plants. However, the predominantly open, exposed and strongly rural character, with areas of visually prominent slopes and undeveloped skylines, limited opportunities for localised screening away from the scattered woodland, frequent vernacular settlements, cultural heritage and nature conservation designations, and relatively high scenic quality with long uninterrupted views, all increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate and any development would need to be sited with care. Localised areas of lower sensitivity are associated with existing farm complexes containing larger-scale built form, such as storage sheds, and locations with higher visual screening/containment by planting or landform. Localised areas of higher sensitivity relate to the more naturalistic landcover such as unimproved/semi-natural grassland and native/ancient woodland (e.g. Swanton Novers), rare/historic landscape types such as co-axial enclosures around Wood Norton, Bale & Briston, and in the vicinity of landmark historic skyline features (e.g. church towers) and Conservation Areas / Registered Parkland such as Gunton, Barningham, Raynham, Wolterton, Mannington and Melton Constable, areas more remote from built development, and areas that are particularly visible/ prominent, including those areas visible from the adjacent River Valleys LCT.	**Moderate**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB; however, sensitivity is increased within the AONB due to the nationally valued scenic qualities and natural beauty associated with this landscape (the introduction of these types of development would likely adversely affect the undeveloped coastal character, remoteness and tranquillity of the area). Overall, typical sensitivity to industrial type developments is considered to be high in the areas of TF that fall within the AONB. In addition, the registered parkland at Melton Constable, Barningham Hall, Gunton Hall, Raynham Hall and Mannington and Wolterton, and the numerous Conservation Areas also have cultural heritage / nature conservation sensitivities associated with them.	**High**
Reservoirs (typical size range 2 – 5ha)	**OUT**	The gently undulating landform, relatively large landscape scale and typically regular landscape pattern of arable fields reduce sensitivity to reservoir development. However, the open, exposed and strongly rural character, with areas of visually prominent slopes and undeveloped skylines, frequently low managed hedgerow field boundaries affording limited opportunities for localised screening, and relatively high scenic quality, all increase sensitivity. Overall, typical sensitivity to this type of development is considered to be moderate. Localised areas of lower sensitivity include areas of lower lying land in natural bowls where less land modelling would be required, or in more enclosed areas where existing mature shelter belts and woodland blocks may afford greater visual screening and containment of reservoirs. Localised areas of higher sensitivity relate to the more naturalistic landcover such as unimproved/semi-natural grassland and native/ancient woodland (e.g. Swanton Novers), rare/historic landscape types such as co-axial enclosures around Wood Norton, Bale & Briston, registered parkland such as Gunton, Wolterton, Manningham and Melton Constable, and areas that are particularly visible/ prominent, including those areas visible from the adjacent River Valleys LCT.	**Moderate**
	IN	The landscape characteristics and attributes outlined above apply equally within the AONB. In addition, the particularly open, elevated and undeveloped character with a strong relationship with the sea, contribute to the AONB's nationally valued scenic qualities and natural beauty, which increase sensitivity. The introduction of reservoirs could adversely affect the undeveloped coastal character, remoteness and tranquillity of the area. Therefore, typical sensitivity to reservoir developed is considered to be moderate-high in the area of TF that falls within the AONB. The registered parkland at Melton Constable, Barningham Hall, Gunton Hall, Raynham Hall and Mannington and Wolterton, and the numerous Conservation Areas have cultural heritage / nature conservation sensitivities associated with them.	**Moderate-High**

Wooded Glacial Ridge



Wooded Glacial Ridge

Baseline Landscape

Introduction to the Landscape Character Type

The Wooded Glacial Ridge type relates to a terminal glacial moraine that forms a dramatic and distinctive landscape feature, characterised by a relatively steep, north-facing scarp slope, rising to a prominent ridgeline which gently descends and levels off inland to the south. The ridge is heavily wooded, including semi-natural woodland and forestry plantations, and is generally undeveloped, providing a focus for recreation.

Most of the Wooded Glacial Ridge type lies within the Norfolk Coast AONB, except for the area around Holt. A smaller area in proximity to the coast is also within North Norfolk's Undeveloped Coast policy area.

Component Character Areas

There is one distinct area of Wooded Glacial Ridge in North Norfolk:

WGR1 – Wooded Glacial Cromer Ridge

Key Characteristics[21]

- Dramatic and distinctive topography and geomorphology
- Woodland is the dominant land cover
- Panoramic views of the coast and inland
- Historic estates are important features
- A range of semi-natural habitats including ancient woodland and remnant heathland
- Holt and Holt Country Park
- Relatively busy road network
- Plotland developments within the woodland around High Kelling

Valued features and qualities

- The distinctive and prominent landform and land cover
- Parkland estates
- Important semi-natural habitats
- A strong sense of remoteness and tranquillity, and dark skies
- The historic and cultural interest of Holt
- Recreational and leisure opportunities

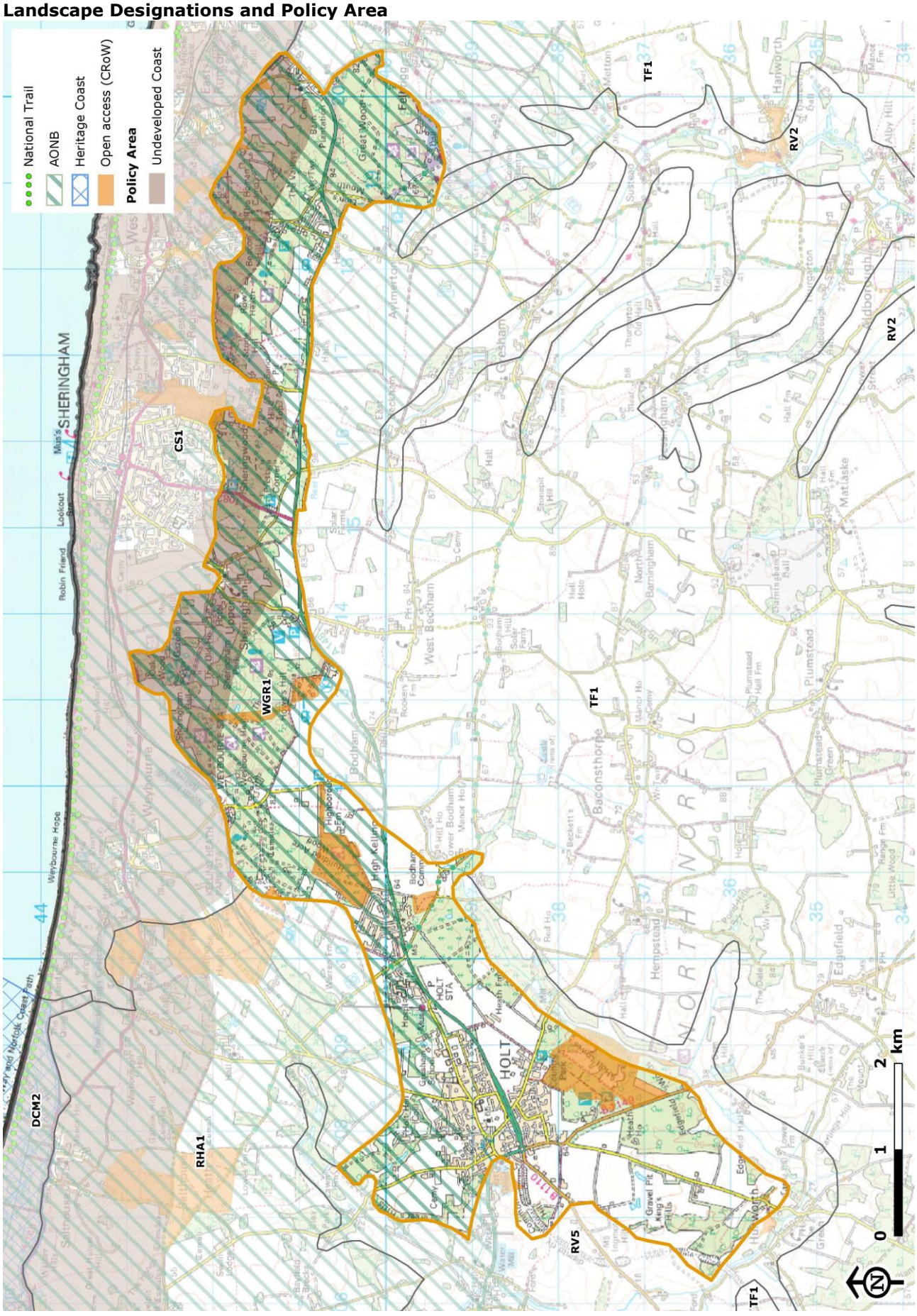
[21] Detailed information about landscape character and valued features is set out in the North Norfolk Landscape Character Asssessment (2018)

Wooded Glacial Ridge

Location of WGR1

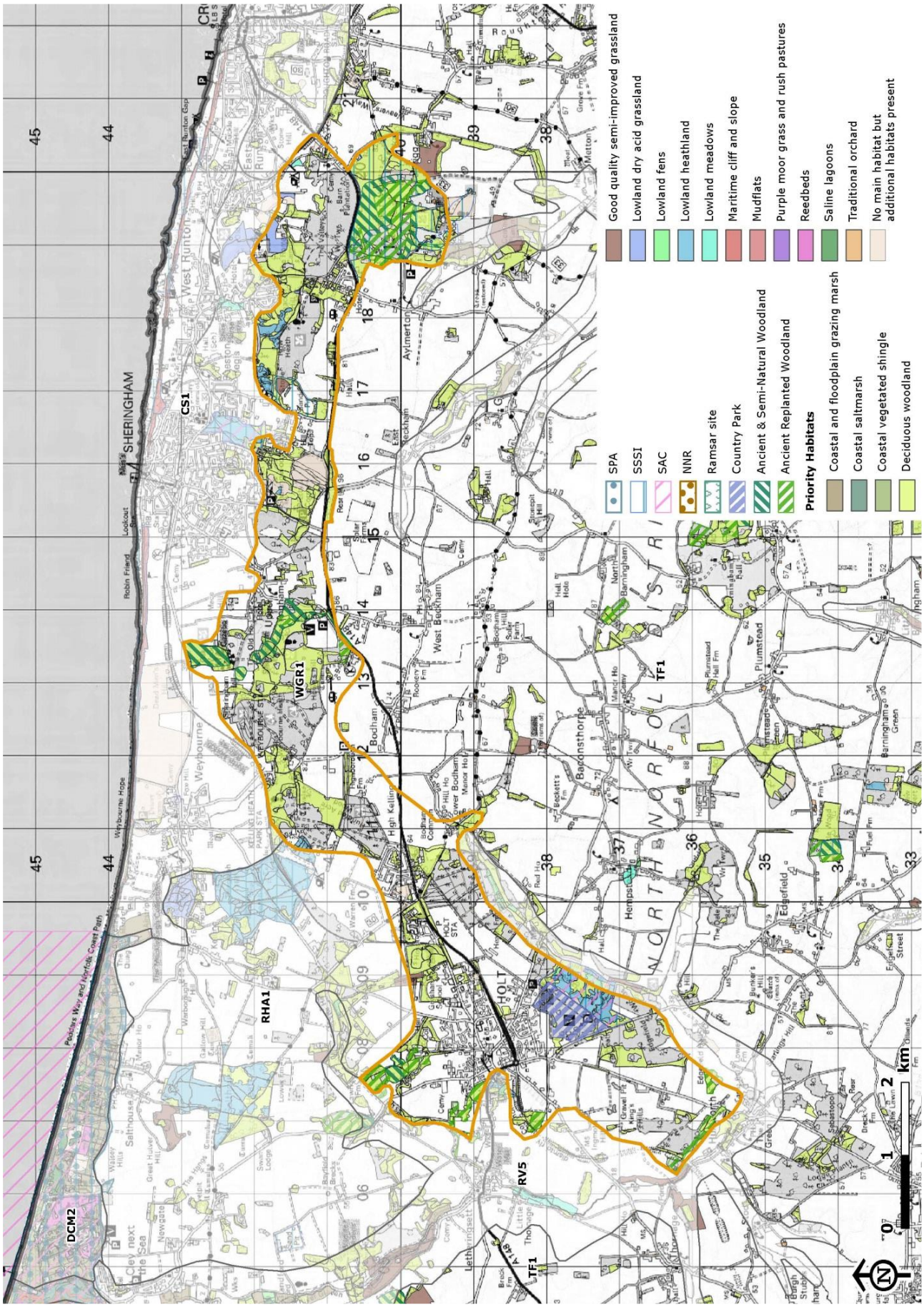
Wooded Glacial Ridge

Landscape Designations and Policy Area



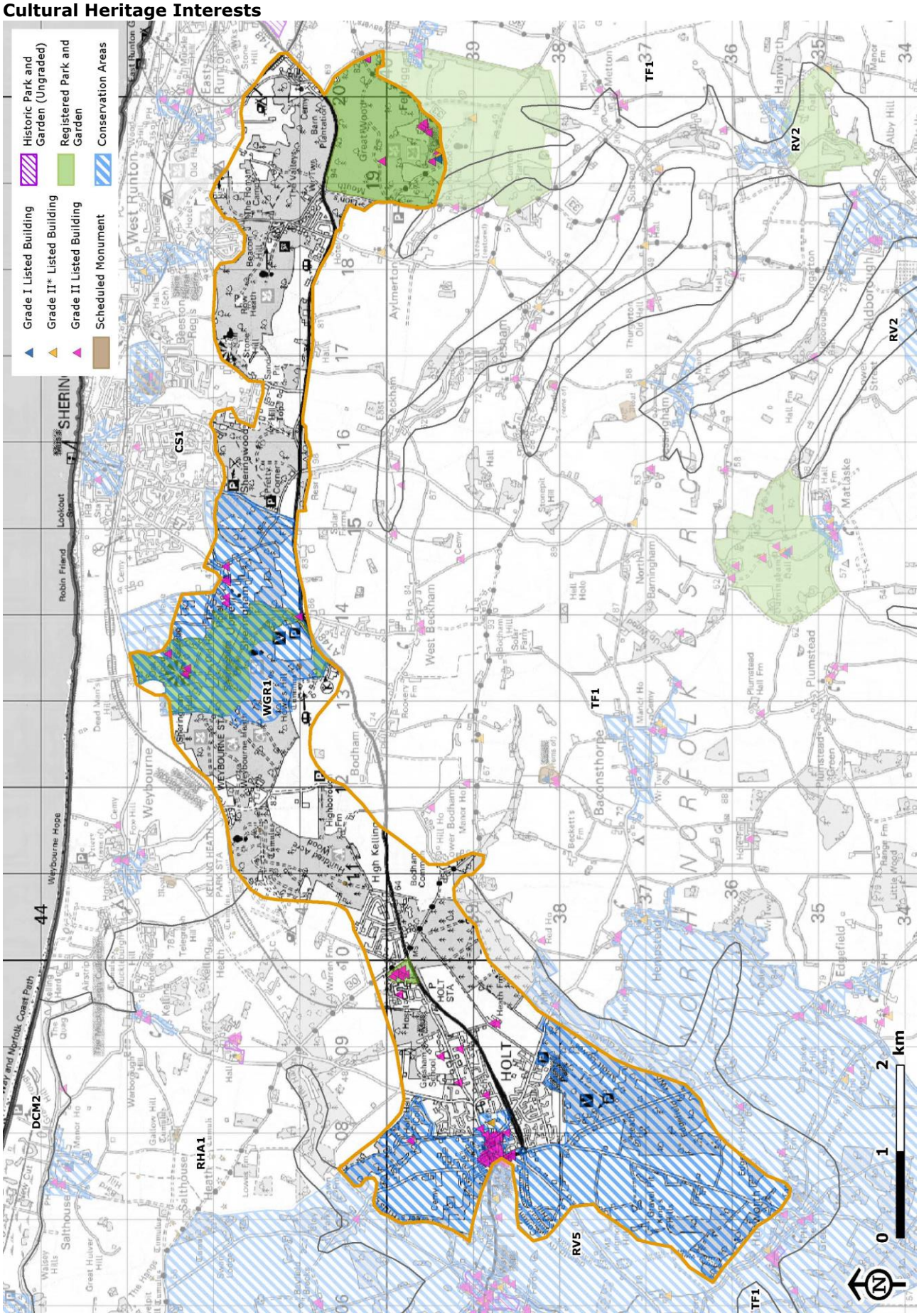
Wooded Glacial Ridge

Nature Conservation Interests



Wooded Glacial Ridge

Cultural Heritage Interests



Wooded Glacial Ridge

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of the Wooded Ridge LCT against the sensitivity criteria which have been predetermined for the development types under consideration.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	The general topography is highly irregular, ranging from the steep, scarp slope, to the ridgeline itself and some areas further inland, which are all undulating to varying degrees. Flatter areas are very infrequent and localised, e.g. around the settlement of Holt. The wooded ridge forms a highly distinctive, prominent and largely undeveloped skyline, which due to its elevation is generally more prominent from neighbouring LCTs rather than within the LCT itself. The ridge is an important component in some very long range views, particularly from the south of the District, as well as shorter range views from along the coast. Where present, settlement and other built form tends to be low-rise and does not intrude on skylines. One exception is the modern telecoms mast sited within the ridge-top woodland north of West Runton, which is a prominent skyline feature above the ridge, particularly from along the coast. The irregular and diverse landform, including many pronounced slopes, together with the generally undeveloped wooded ridge which is a prominent and distinctive skyline feature throughout many parts of the District, increases sensitivity to wind turbines, field-scale solar PV development, onshore cable routes and the taller elements of	↑	↑	↑	↑	↑	↑	↑	↑	↓

Wooded Glacial Ridge

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	industrial type developments. The landform provides more opportunities to naturally integrate reservoirs and associated embankments, which do not generally impact on skylines, therefore sensitivity to reservoirs is lowered.									
Landcover	The predominant landcover throughout the LCT is woodland, which has typically developed on areas of former lowland heath, and includes a combination of commercial forestry plantations (principally conifers), and semi-natural deciduous woodland; some of which is designated ancient woodland. Other landcover includes arable farmland on the inland slopes of the ridge, some pasture and informal parkland on the scarp, coastal slopes, the built-up areas of Holt and the outskirts of Cromer, lowland heath, scattered settlement such as the plotlands housing and holiday parks within the woodland around High Kelling, and the mineral working site at Britons Lane north of Beeston Regis. Commercial forestry plantations, arable landcover and previously developed land tend to have a lower sensitivity to most forms of development compared with more naturalistic landcover such as semi-natural woodland, heathland, parkland and pasture. Given this variation across the LCT between naturalistic and non-naturalistic landcover, typical sensitivity to most of the development types under consideration balances out so that there is no strong influence one way or the other. The linear nature of onshore cable routes means that the extensive tree removal likely to be required in this LCT (and the time needed for replacement planting to mature) would be particularly prominent, including on	–	–	–	–	↑	–	–	–	–

Wooded Glacial Ridge

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		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	skylines, which more strongly influences sensitivity to this development type.									
Sense of openness/ enclosure	The predominant, extensive woodlands provide significant enclosure and visual containment which typically reduces sensitivity to all forms of development under consideration, although the taller elements of wind turbines are not capable of being screened by vegetation. The more open, exposed parts of the LCT, such as where larger arable fields occur away from the woodland, will have a higher sensitivity to all forms of development as this provides fewer opportunities to screen or visually absorb such development.	–	–	↓	↓	↓	↓	↓	↓	↓
Scale (landform and component features), landscape pattern & complexity	Despite the presence of extensive woodlands, the LCT has a more intimate, complex and smaller-scale character than many other parts of the District, as there is frequently a mosaic of different features experienced in combination with one another, such as woodland, heathland, arable, pasture and settlement, which reduces the apparent scale of the landscape, particularly when combined with the sense of enclosure provided by the woodland. Fields tend to be more irregular in shape than in other LCTs as they often adjoin or fit within surrounding woodland, which compounds the complexity of the landscape pattern. Overall, these factors increase sensitivity to the larger scale developments such as field-scale solar PV developments, larger wind turbines and reservoirs, whilst having a lesser influence on the other developments such as smaller scale turbines and cable relay stations, battery storage or AD plants.	↑	↑	–	↑	×	–	–	–	↑

Wooded Glacial Ridge

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of tranquillity/ remoteness/ rurality & level of human influence Undeveloped Coast policy area	Despite the proximity to larger settlements such as Cromer, Sheringham and Holt, many areas within the LCT are essentially undeveloped and exhibit a sense of rurality and tranquillity. This is enhanced by the screening and enclosure provided by the woodland, creating a sense of separation away from these built-up areas and general human influence, and enhancing the dark night skies. These qualities are reinforced by the Undeveloped Coast policy area, which applies to parts of the LCT, and increase sensitivity to all forms of development under consideration. Localised areas where the tranquillity and rurality is reduced include along the corridor of the busy A148, within Holt and around the northern outskirts of Cromer.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Time depth / historical continuity	The predominant historic landscape type within the LCT comprises 18th-20th century woodland plantations, and there are also extensive areas of relatively modern 18th, 19th and 20th century agricultural enclosures; both of which typically have a low time depth, reducing sensitivity to all forms of development under consideration. Other HLC types are present as smaller, discrete areas throughout the LCT and include ancient woodland, commons, heaths and informal parkland, which all have a greater time depth and therefore a higher sensitivity.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Value Criteria										
Presence of landscape designations and extent to which	As noted above, most of the Wooded Ridge type lies within the Norfolk Coast AONB, except for the area around Holt. Any of the types of development under	↑	↑	↑	↑	↑	↑	↑	↑	↑

Wooded Glacial Ridge

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Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
their special qualities could be affected	consideration in this study have the potential to affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of this nationally valued landscape increases sensitivity to all forms of development within or potentially affecting these areas by virtue of their location/proximity.									
Other indicators of value	<u>High scenic quality:</u> The minority of the LCT which is not within the AONB (i.e. south of Holt) is typically of moderate scenic quality as it contains some of the more regular arable farmland in the area, together with commercial forestry plantations, mineral workings and pig farming. Holt is an attractive Georgian town, and there are some scenic areas of woodland and open space such as Holt Country Park, which incorporates rare lowland heath and fen habitats. <u>Representativeness:</u> The landscape is a notable example (for the region) of an extensive wooded ridge on sandy/gravelly glacial deposits. <u>Rarity:</u> Discrete areas of relatively rare ancient woodland and lowland heathland exist amongst the more common modern farmland, forestry and built-up areas. <u>Intactness:</u> The landscape displays intactness insofar as it includes extensive areas (including ancient woodland) that have been continuously forested since at least the									

Wooded Glacial Ridge

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		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	19th century; however, this has been to the detriment of the intactness of lowland heathland which the more recent forestry plantations were typically sited on, although some important heathland (e.g. Holt Lowes) has survived,albeit fragmented. Other areas have been adversely affected by 20th century intensive agriculture and associated hedgerow removals. Nature conservation & cultural heritage interests: The LCT includes small parts of Beeston Regis Common and Holt Lowes, which contain lowland heath and fen habitats and are designated as SSSIs and SPAs. There is also ancient woodland in the vicinity of Sheringham Park, Felbrigg Hall and Holt. Priority habitats include many areas of deciduous woodland, some of which are extensive, such as those around Sheringham Park and Felbrigg; and lowland heath, dry acid grassland, lowland meadow and lowland fen, which are typically small and fragmented. Cultural heritage assets are infrequent across the LCT, reflecting its generally wooded, undeveloped character. The main groupings of assets occur around Sheringham Hall and Felbrigg Hall, which are Grade II* Registered Park and Gardens, as is Voewood nestled within the woodland at High Kelling, and the Conservation Areas of Holt, Upper Sheringham and the Glaven Valley. Recreational value: The LCT has above average recreational value, due to the combination of many areas of extensive Open Access Land (typically Forestry Commission land), the District's only Country Park (Holt), and a fairly extensive network of PRoWs	↑	↑	↑	↑	↑	↑	↑	↑	↑
		–	–	–	–	–	–	–	–	–
		↑	↑	↑	↑	↑	↑	↑	↑	↑

Wooded Glacial Ridge

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	throughout the area. The Holt – Cromer heritage steam railway is also a popular visitor attraction. <u>Literary / artistic associations:</u> W H Auden was educated at Gresham's School, Holt. However, this connection does not contribute to perceptions of the natural beauty of the area.	–	–	–	–	–	–	–	–	–

Wooded Glacial Ridge

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the LCT sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire LCT, reflecting the strategic nature of this study. Notable areas where sensitivity is higher or lower than typical are outlined within the table, however there may be more localised variations in sensitivity within this.

Development Type	AONB	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	**OUT**	Parts of the LCT outside the AONB (e.g. south and east of Holt) have flatter, more regular topography and extensive plantation woodland cover which could indicate a lower sensitivity to wind turbines. However, this is outweighed by the generally undeveloped skylines, strongly rural and tranquil character, varied landscape scale, presence/proximity of important recreational resources, cultural and natural heritage designations (e.g Holt Country Park and Holt Lowes SSSI / SAC, and the Glaven Valley Conservation Area), which all increase sensitivity. In addition, the presence of large scale wind turbines in this general area outside the AONB would result in them forming skyline features visible from within the AONB, which has the potential to adversely affect the defined AONB special qualities (see below). Overall, typical sensitivity to this scale of turbine is considered to be **high**.	**High**
	IN	In addition to the above, the landscape within the AONB is more strongly undulating, with a more prominent undeveloped skyline, areas of pronounced slopes, greater tranquillity/lower human intervention and more intimate, irregular scale; characteristics which further increase sensitivity to large scale turbines. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. lowland heath). These nationally valued landscape qualities ensure the highest level of sensitivity in relation to large scale wind turbines. The areas around Sheringham Hall and Park and Felbrigg Hall will also have particular cultural heritage sensitivities associated with them.	**High**
Medium scale wind turbines, (up to 60m hub height)	**OUT**	Parts of the LCT outside the AONB (e.g. south and east of Holt) have flatter, more regular topography and extensive plantation woodland cover, which could indicate a lower sensitivity to wind turbines. However, this is outweighed by the generally undeveloped skylines, strongly rural and tranquil character, varied landscape scale, presence/proximity of important recreational resources, cultural and natural heritage designations (e.g Holt Country Park and Holt Lowes SSSI / SAC, and the Glaven Valley Conservation Area), which all increase sensitivity. In addition, the presence of medium scale wind turbines in this general area outside the AONB would result in them forming skyline features visible from within the AONB, which has the potential to adversely affect the defined AONB special qualities (see below). Overall, typical sensitivity to this scale of turbine is considered to be **high**.	**High**
	IN	In addition to the above, the landscape within the AONB is more strongly undulating, with a more prominent undeveloped skyline, areas of pronounced slopes, greater tranquillity/lower human intervention and a more intimate, irregular scale; characteristics which further increase sensitivity to medium scale turbines. The AONB is underpinned by its defined special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. lowland heath). These nationally valued landscape qualities ensure the highest level of sensitivity in relation to medium scale wind turbines. The areas around Sheringham Hall and Park and Felbrigg Hall will also have particular cultural heritage sensitivities associated with them.	**High**

Wooded Glacial Ridge

Small scale wind turbines, (up to 30m hub height)	**OUT**	Parts of the LCT outside the AONB (e.g. south and east of Holt) have flatter, more regular topography and extensive plantation woodland cover, which could indicate a lower sensitivity to wind turbines. However, this is outweighed by the generally undeveloped skylines, strongly rural and tranquil character, varied landscape scale, presence/proximity of important recreational resources, cultural and natural heritage designations (e.g Holt Country Park and Holt Lowes SSSI / SAC, and the Glaven Valley Conservation Area), which all increase sensitivity. In addition, the presence of small scale wind turbines in this general area outside the AONB could result in them forming skyline features visible from within the AONB, which has the potential to adversely affect the defined AONB special qualities (see below), although visibility would not be as extensive as for the larger scales of turbine. Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is more strongly undulating, with a more prominent undeveloped skyline, areas of pronounced slopes, greater tranquillity/lower human intervention and a more intimate, irregular scale; characteristics which further increase sensitivity to medium scale turbines. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. lowland heath). These nationally valued landscape qualities ensure the highest level of sensitivity in relation to wind turbines of this size. The areas around Sheringham Hall and Park and Felbrigg Hall will also have particular cultural heritage sensitivities associated with them.	**High**
Field-scale solar PV development (above 10 hectares site area)	**OUT**	Parts of the LCT outside the AONB (e.g. south and east of Holt) are of a moderate scenic quality with a flatter, more regular topography, less prominent skylines, arable fields and extensive plantation woodland cover, and some hedgerows, which would help screen and visually contain field-scale solar PV developments and therefore reduce sensitivity to this type of development. However, this is counterbalanced by the generally irregular and small scale of fields, the strongly rural and tranquil character, sense of openness, presence/proximity of important recreational resources, cultural and natural heritage designations (e.g Holt Country Park and Holt Lowes SSSI / SAC, and the Glaven Valley Conservation Area), which all increase sensitivity. In addition, there are areas where solar panels would be visible from the AONB, which has the potential to adversely affect the defined AONB special qualities (see below). Overall, typical sensitivity to field-scale solar PV is considered to be **moderate-high** and any development would need to be sited with care.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is more strongly undulating, with a more prominent undeveloped skyline, areas of pronounced slopes, greater tranquillity/lower human intervention, a more intimate, irregular scale and more frequent naturalistic landcover (e.g. lowland heath and deciduous woodland); characteristics which increase sensitivity to field-scale solar PV development. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats (e.g. lowland heath). These nationally valued landscape qualities ensure the highest level of sensitivity in relation to field-scale solar PV development. The areas around Sheringham Hall and Park and Felbrigg Hall will also have particular cultural heritage sensitivities associated with them.	**High**

Wooded Glacial Ridge

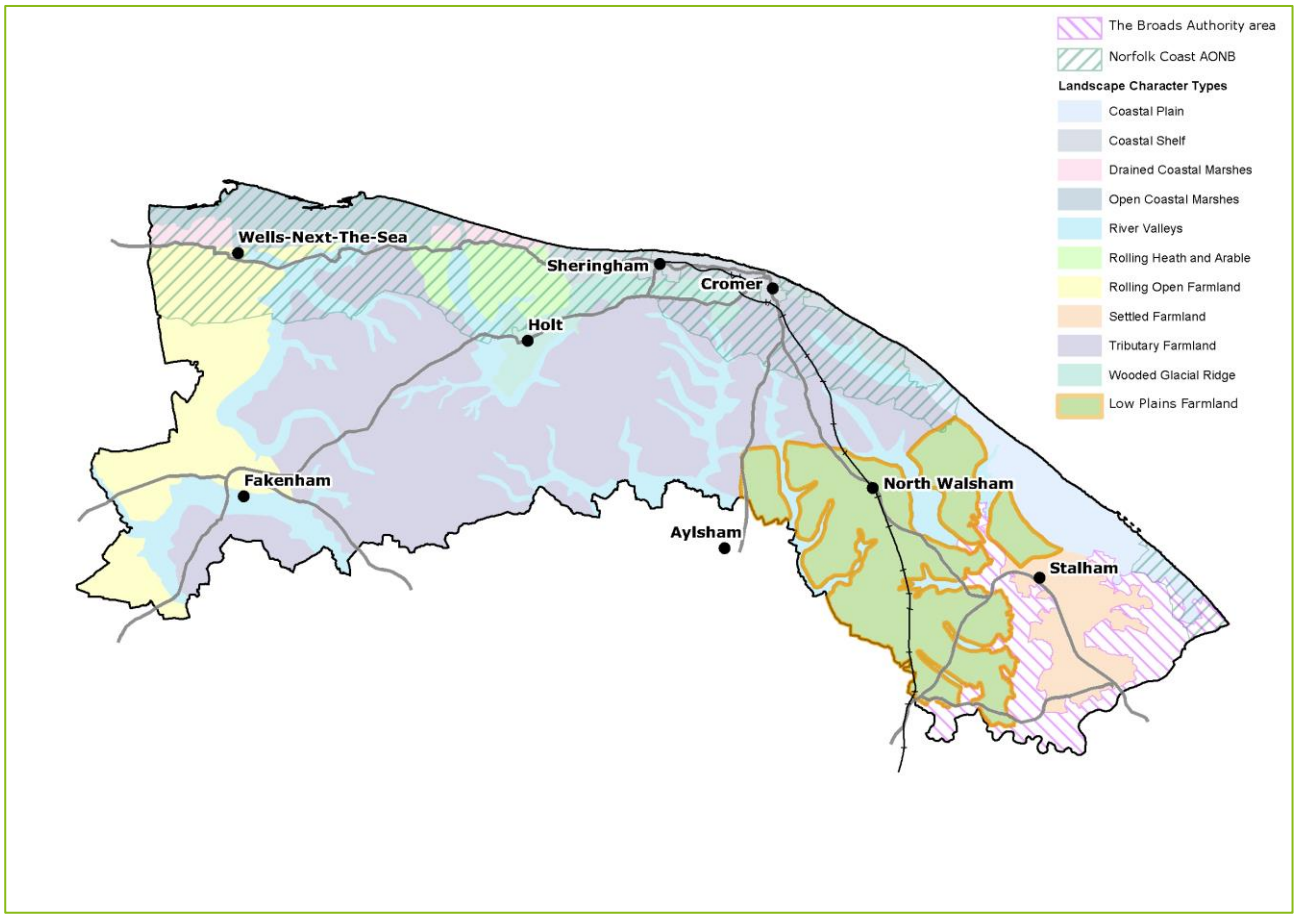
Onshore cable routes for offshore wind farms (30m-80m clearance)	**OUT**	Whilst there are areas of flatter, regular arable farmland within the parts of the LCT outside the AONB, which have a lower sensitivity to onshore cable routes, the presence of extensive woodland cover means it is likely to be more difficult to route onshore cables so that woodland is avoided (compared to other LCTs). This,and the elevated nature of the landscape, increases sensitivity to buried cable routes. The strongly rural and tranquil character, and presence/proximity of important recreational resources, cultural and natural heritage designations (e.g Holt Country Park and Holt Lowes SSSI / SAC, and the Glaven Valley Conservation Area), also increase sensitivity to onshore cable routes. Overall, typical sensitivity to this type of development is considered to be **moderate-high**. Because of the existing landfall cable connection at Weybourne, there are already onshore cable routes extending through this LCT from Kelling to Bodham and there is potential demand for additional routes which will require detailed consideration given the sensitivity of this LCT.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB is more strongly undulating, with a more prominent undeveloped skyline, areas of pronounced slopes, greater tranquillity/lower human intervention and more frequent naturalistic landcover (e.g. lowland heath and deciduous woodland); characteristics which increase sensitivity to cable laying. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats such as lowland heath and ancient woodland. Cable laying could affect the undeveloped coastal character, sense of remoteness and tranquillity, and recreational value, for a temporary period, and could result in permanent or long term impact on the important, naturalistic habitats and the prominent unbroken wooded ridge which is a key characteristic of this part of the AONB. Therefore, typical sensitivity to underground cables is considered to be **high** in the areas of the LCT that fall within the AONB. Because of the existing landfall cable connection at Weybourne, there are already onshore cable routes extending through this LCT from Kelling to Bodham and there is potential demand for additional routes which will require detailed consideration given the sensitivity of this LCT.	**High**
Commercial battery storage schemes, Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	**OUT**	Areas of commercial forestry plantations exist in the part of the LCT south and east of Holt, which would provide significant screening and visual containment of industrial type developments, lowering sensitivity (the taller elements may still be visible on the skyline above the woodland). However, the strongly rural and tranquil character, more open and exposed areas of arable farmland and presence/proximity of important recreational resources, cultural and natural heritage designations (e.g Holt Country Park and Holt Lowes SSSI / SAC, and the Glaven Valley Conservation Area), all increase sensitivity to industrial type developments. These may also be perceived from within the AONB, with the potential to adversely affect the defined AONB special qualities (see below). Overall, typical sensitivity to this type of development is considered to be **moderate-high**.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB has a more prominent undeveloped skyline, areas of pronounced slopes, greater tranquillity/lower human intervention and more frequent naturalistic landcover (e.g. lowland heath and deciduous woodland); characteristics which increase sensitivity to industrial type developments. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats such as lowland heath and ancient woodland. Industrial type developments have the potential to affect all of these qualities. Therefore, typical sensitivity to such development is considered to be **high** in the areas of	**High**

Wooded Glacial Ridge

		the LCT that fall within the AONB.	
Reservoirs (typical size range 2 – 5ha)	**OUT**	The flatter topography of the parts of the LCT outside the AONB (south and east of Holt) means that there are few opportunities to naturally integrate reservoir embankments within the surrounding landform, which could increase the visual prominence of embankments and therefore sensitivity. Sensitivity is also increased by the rural and tranquil character of the area, more open and exposed areas of arable farmland away from woodland and presence/proximity of important recreational resources, cultural and natural heritage designations (e.g Holt Country Park and Holt Lowes SSSI / SAC, and the Glaven Valley Conservation Area). These may also be perceived from within the AONB, with the potential to adversely affect the defined AONB special qualities (see below). This is counterbalanced by the presence of some larger arable fields in combination with the extensive woodland cover, providing areas where reservoirs and associated embankments would be significantly screened and visually contained, which lowers sensitivity. Overall, typical sensitivity to this type of development is considered to be **moderate-high**.	**Moderate-High**
	IN	In addition to the above, the landscape within the AONB has a more prominent undeveloped skyline, visible slopes, greater tranquillity/lower human intervention and more frequent naturalistic landcover (e.g. lowland heath and deciduous woodland); characteristics which increase sensitivity to reservoir developments. The AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and wildness, dark skies, and important, locally distinctive habitats such as lowland heath and ancient woodland. Whilst there may be isolated coniferous woodland areas within the AONB where reservoirs could be visually screened (in proximity to the farmland which they would irrigate), their presence is still likely to conflict with its undeveloped character, naturalistic qualities (including tranquillity and remoteness) and recreational value. Therefore, typical sensitivity to such development is considered to be **high** in the areas of the LCT that fall within the AONB.	**High**

Appendix 2 – Landscape Sensitivity Assessment Profiles for Airfield Sites

Coltishall


The Broads Authority area
Norfolk Coast AONB
Landscape Character Types
Coastal Plain
Coastal Shelf
Drained Coastal Marshes
Open Coastal Marshes
River Valleys
Rolling Heath and Arable
Rolling Open Farmland
Settled Farmland
Tributary Farmland
Wooded Glacial Ridge
Low Plains Farmland
Wells-Next-The-Sea
Sheringham
Cromer
Holt
Fakenham
North Walsham
Aylsham
Stalham


Google Earth

Coltishall

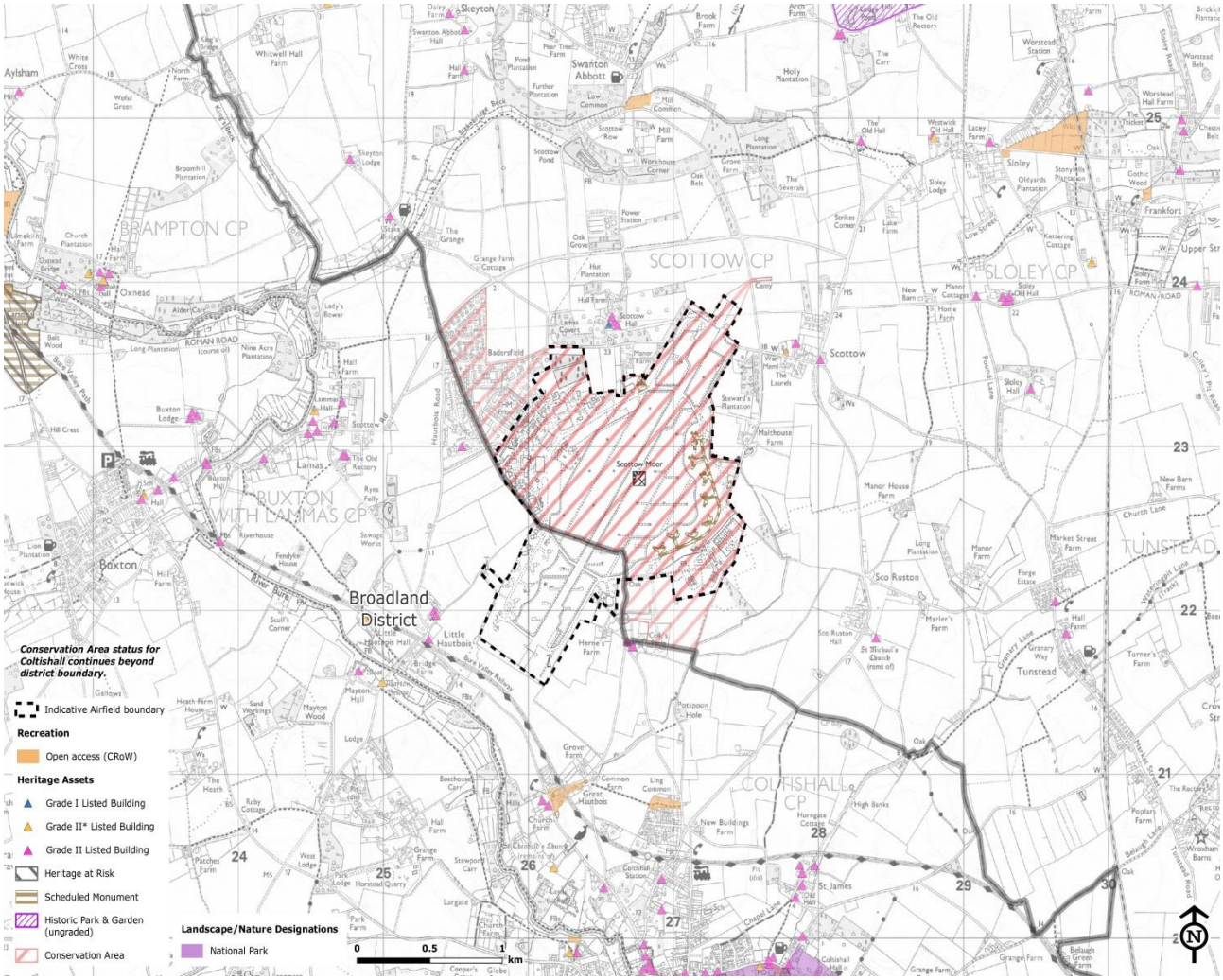
Baseline Landscape

Introduction to the Airfield

In common with many of the District's airfields, RAF Coltishall is a former RAF World War 2 airfield which became operational in 1940 as fighter airfield. After the war it continued as a MoD airfield, becoming exclusively a Jaguar station from1974. Coltishall eventually became the last surviving operational RAF airfield involved in the Battle of Britain other than RAF Northolt, eventually closing in 2006. It has since seen conversion of its military buildings to use as a prison (HMP Bure) and Scottow Enterprise Park, as well as the construction of a large 50MW solar farm.

The airfield is located in an area of Lowland Plains Farmland LCT on the District boundary, and is characterised by a combination of farmland, grassland, former runways/ tracks/ hardstandings and buildings (the site boundary excludes the prison and residential areas). The surrounding landscape is dominated by flat or gently undulating open farmland close to the Bure Valley.

The airfield lies outside any landscape designations, although the whole site is designated as a Conservation Area because of its historical and architectural interest. A visible remnant of a Second World War revetment together with one of the two sets of 1950s blast walls are now a Scheduled Monument.



Coltishall

Key Characteristics of the Airfield[22]

- An extensive area of flat land at around 18m AOD. The surrounding land is of a similar elevation (slightly higher to the north, slightly lower to the south) with no notable vantage points overlooking the airfield.
- The original runway remains in place, now surrounded by a large scale solar farm with important retained grassland.
- Edges are dominated by rough grass which hosts a local skylark population and former trackways/ areas of hardstanding.
- An industrial park lies between the former runway and HMP Bure.
- The site is generally very open in character although there are some hedgerows and tree belts on the edges of the site.
- The whole site is designated as a Conservation Area because of its historical and architectural interest.

Valued features and qualities of the Airfield

- Recognised historic interest as a former RAF WW2 airfield and the only Battle of Britain station in the UK to have remained in continuous use until 2006.
- Scheduled Ancient Monument Blast Walls and 'Spitfire Pens'.

[22] Detailed information about landscape character and valued features of the wider LPF LCT is set out in the North Norfolk Landscape Character Assessment (2018)

Coltishall

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of Coltishall Airfield against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Flat landform with very little variation across the site. To the north the land gradually rises while to the south it gradually falls. Due to the flatness of the site skyline are hugely prominent, but characterised by built development (including the control tower and water tower) or solar panels associated with the airfield. A church tower at Scottow to the north of the airfield is a local landmark. Whilst the flat, uniform landform generally reduces sensitivity to wind turbines, the presence of church towers in the surrounding landscape increases sensitivity. Overall neutral influence on sensitivity to wind turbines. The flat landform reduces sensitivity to field-scale solar PV developments and onshore cable routes, whilst increasing sensitivity to reservoirs. The flat landform balances out the generally undeveloped skylines in respect of sensitivity to industrial type developments.	–	–	–	↓	↓	–	–	–	↑
Landcover	A combination of runways, built development, solar panels, grassland and remnant airfield hard standings (roads/tracks and aprons) reduces sensitivity to all development types.	↓	↓	↓	↓	↓	↓	↓	↓	↓

Coltishall

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of openness/ enclosure	A generally open character, however enclosure and screening is provided from certain directions by hedgerows and shelter belts surrounding the airfield which could help screen lower level elements. This results in a neutral effect on sensitivity to the lower lying developments, and increases sensitivity to wind turbines which cannot be screened by existing shelter belts.	↑	↑	↑	–	–	–	–	–	–
Scale (landform and component features), landscape pattern & complexity	The airfield landscape is large scale which generally reduces sensitivity to all development types.	↓	↓	↓	↓	×	↓	↓	↓	↓
Sense of tranquillity/ remoteness/ rurality & level of human influence	The airfield is developed and not particularly remote or tranquil as a result, indicating a reduced sensitivity in relation to this criterion.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Time depth / historical continuity	The site is identified by the Norfolk HLC as a military airfield (20th Century), which will generally have a lower susceptibility to all forms of development, due to the limited time depth and historical continuity.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The airfield is not within or in close proximity to any landscape designations, with the nearest such designation being the Norfolk Broads which is just under 2km away. Landscape designations have no influence on sensitivity to most development types except the larger wind turbines which could potentially be visible from the Broads.	↑	↑	↓	↓	↓	↓	↓	↓	↓

Coltishall

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Other indicators of value	<u>Scenic quality:</u> The landscape within the airfield is not of any notable scenic quality.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	<u>Representativeness:</u> The majority of the airfield is now a solar farm, although the airfield is a fairly important example of a World War 2 airfield from an historic point of view which increases sensitivity.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	<u>Rarity:</u> The majority of the airfield is now a solar farm and World War 2 airfields are not rare. However, Coltishall is the only Battle of Britain station in the UK to have remained in continuous use as an operational fighter station until 2006, so is rare and significant from a military history perspective.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	<u>Intactness:</u> The landscape is not particularly intact as it has been regularly modified through time, both as part of the construction of the WW2 airfield from former farmland, and subsequent use as a solar farm and business park. This reduces sensitivity to further change.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	<u>Nature conservation & cultural heritage interests:</u> There is considerable cultural heritage interest – the whole site is a Conservation Area and the site also includes a Scheduled Monument, increasing sensitivity to all development types.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	There are no nature conservation designations within the site, reducing landscape sensitivity in relation to this criterion (although it is recognised that the airfield's grassland is important habitat for local skylark populations).	↓	↓	↓	↓	↓	↓	↓	↓	↓

Coltishall

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	<u>Recreational value:</u> No Public Rights of Way are present within the airfield and there is no public access, reducing sensitivity in relation to this criterion. <u>Literary / artistic associations:</u> No known famous literary/artistic associations.	↓ –	↓ –	↓ –	↓ –	↓ –	↓ –	↓ –	↓ –	↓ –

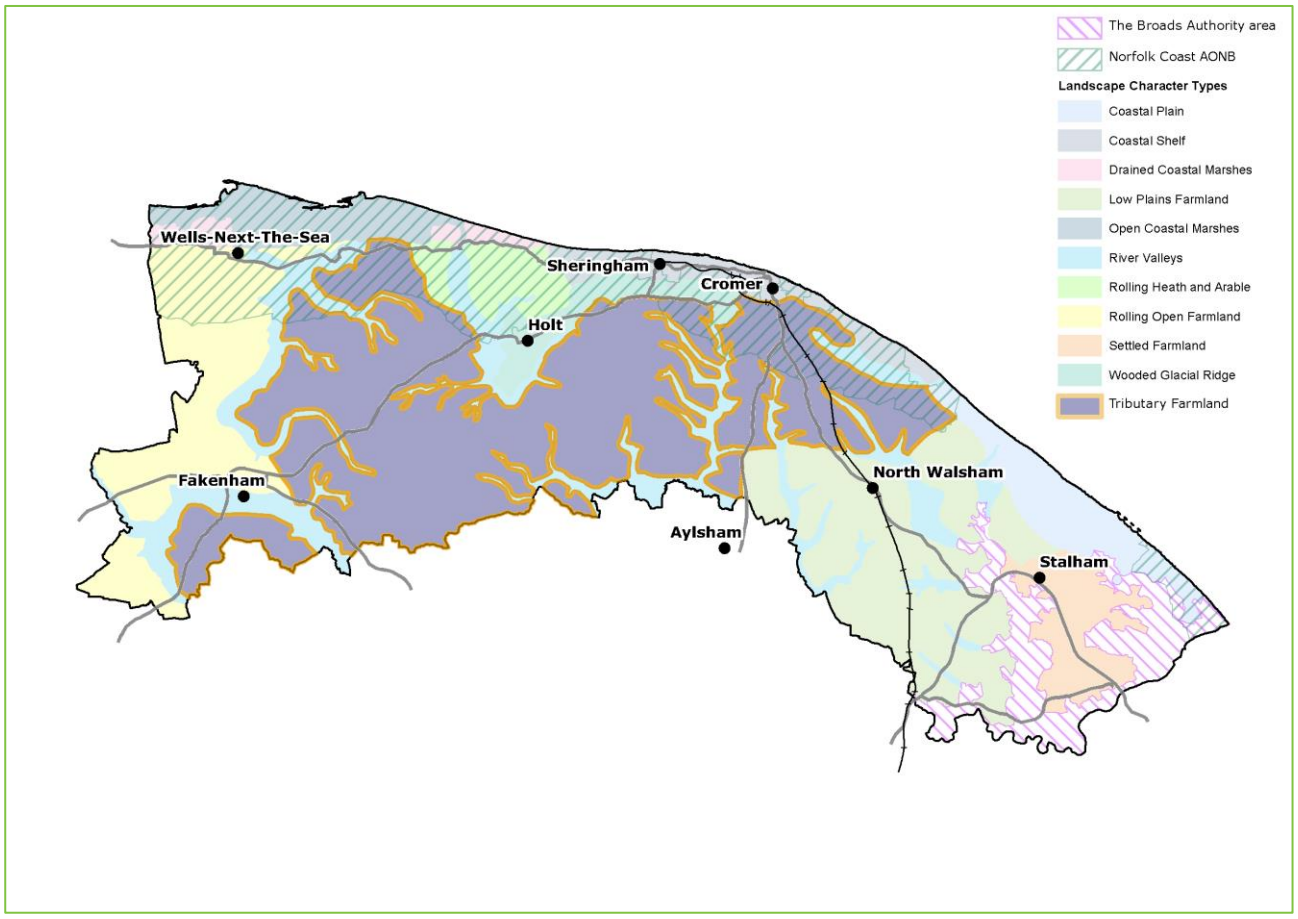
Coltishall

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the airfield sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire airfield site. Notable areas where sensitivity is higher or lower than typical are outlined within the table.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, low landscape value, absence wildlife designations and lack of public access generally reduces sensitivity to large scale wind turbines, this is counterbalanced by the high cultural heritage value and proximity to landmark church towers and The Broads which increase sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
Medium scale wind turbines, (up to 60m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, low landscape value, absence wildlife designations and lack of public access generally reduces sensitivity to large scale wind turbines, this is counterbalanced by the high cultural heritage value and proximity to landmark church towers and The Broads which increase sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
Small scale wind turbines, (up to 30m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, low landscape value, absence wildlife designations and lack of public access generally reduces sensitivity to large scale wind turbines, this is counterbalanced by the high cultural heritage value and proximity to landmark church towers which increase sensitivity. Nevertheless, sensitivity would be lower to smaller turbines than larger turbines. Overall, typical sensitivity to this scale of turbine is considered to be **moderate**.	**Moderate**
Field-scale solar PV development (above 5MW capacity or 15 hectares site area and above)	There is already a large solar farm on this site and the flat landform, presence of some potential screening features (or ability to mitigate using screen planting) and lack of access for recreation reduce sensitivity to further field-scale solar PV development. The only indicator of increased landscape sensitivity is the cultural heritage interest of the site, although the biodiversity value of the remaining grassland for local skylark populations is recognised. Overall, typical sensitivity to further solar PV development is considered to be **low-moderate**.	**Low-Moderate**
Onshore cable routes (for offshore wind farms)	The flat, uniform landform, low value landcover, distance form landscape designations and lack of access for recreational all reduce sensitivity to onshore cable routes. The only indicator of increased sensitivity is the cultural heritage interest of the site. Overall, typical sensitivity to onshore cable routes is considered to be **low-moderate**.	**Low-Moderate**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	The flat landform, low value landcover, presence of some potential screening features (or ability to mitigate using screen planting) and lack of access for recreation reduce sensitivity to these types of development. The only indicator of increased sensitivity is the cultural heritage interest of the site. Overall, typical sensitivity to further solar PV development is considered to be **low-moderate**.	**Low-Moderate**
Reservoirs (typical size range 2 – 5ha)	The flat landform and more open and exposed character of parts of the site would make it more difficult to naturally integrate or screen reservoir embankments within the landscape. In addition, the site has cultural heritage interest which increases its value and therefore overall sensitivity. However, the flat landform, low value landcover, presence of some potential screening features (or ability to mitigate using screen planting) and lack of access for recreation reduce sensitivity to reservoir development. Overall, typical sensitivity to reservoir development is considered to be **low-moderate**.	**Low-Moderate**

Langham


The Broads Authority area
Norfolk Coast AONB
Landscape Character Types
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Coastal Shelf
Drained Coastal Marshes
Low Plains Farmland
Open Coastal Marshes
River Valleys
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Rolling Open Farmland
Settled Farmland
Wooded Glacial Ridge
Tributary Farmland
Wells-Next-The-Sea
Sheringham
Cromer
Holt
Fakenham
North Walsham
Aylsham
Stalham


Google Earth

Langham

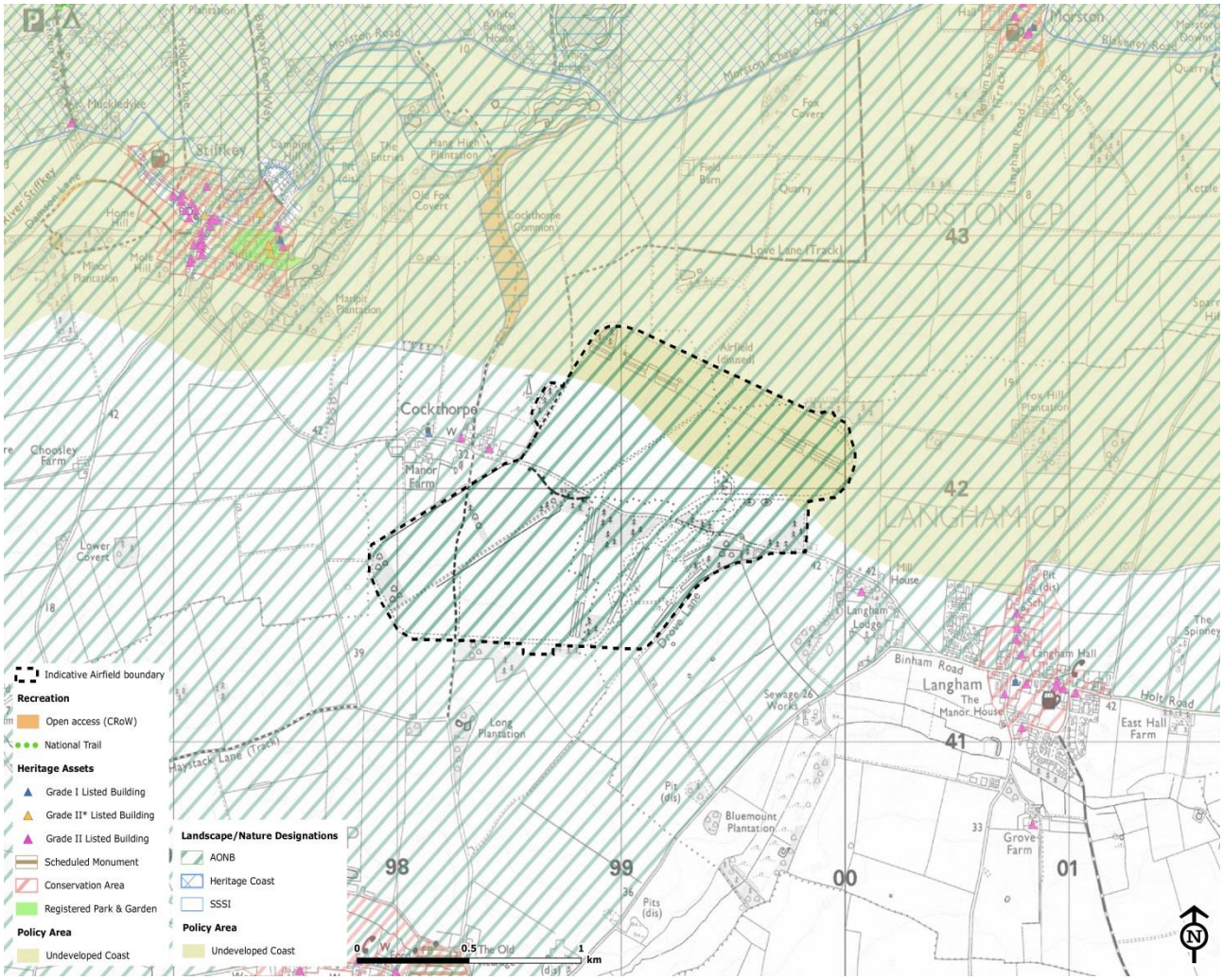
Baseline Landscape

Introduction to the Airfield

In common with many of the District's airfields, Langham is a former RAF World War 2 airfield, which was upgraded during 1942-43 from a grass landing strip to a 'Class A standard' airfield, with the construction of three concrete runways and a significant number of associated buildings, most notably Langham Dome, one of the few remaining anti-aircraft training simulators and a Scheduled Ancient Monument. Langham was used as a base for aircraft from RAF 16 Group, Coastal Command until the end of the war, and continued in use by the RAF until it was closed in 1958.

The airfield is located on a flatter plateau area within the north-western part of the Tributary Farmland Type, and is characterised by a combination of open arable farmland, several large commercial poultry sheds sited on the former runways, a number of planted woodland blocks and shelterbelts, and original retained airfield building/structures. The surrounding landscape is open, elevated and gently rolling/undulating arable farmland with medium to large scale, geometric fields enclosed by hedgerows and shelterbelts, and contains the settlements of Cockthorpe and Langham.

The airfield lies wholly within the North Norfolk AONB, and partly within North Norfolk's Undeveloped Coast policy area. The North Norfolk Heritage Coast lies approximately 1km to the north of the site.



Langham

Key Characteristics of the Airfield[23]

- A concave, plateau-like landform of between 35-42m AOD, which dips towards the centre of the airfield.
- The Langham to Stiffkey minor road runs east-west through the centre of the site.
- A major telecommunications mast is sited on the north-western edge of the airfield, which forms a prominent skyline feature in extensive local views, particularly from the lower coastal areas.
- A number of low-profile commercial poultry sheds, with taller metal feed silos, which cumulatively comprise significant built form.
- A series of small scale, free-standing solar PV panels associated with the poultry sheds.
- A number of planted woodland blocks and shelterbelts (deciduous, coniferous and mixed), in both perimeter and central locations within the site.
- The sense of openness and enclosure varies significantly, depending on the proximity and relationship to the areas of mature vegetation, although the predominant character is open and fairly exposed, reflecting the dominance of arable landcover.
- Longer-range views into the site are restricted by the lack of significantly higher vantage points, but are possible from the slightly higher land to the west, although the mature vegetation breaks up and screens many areas.
- Remnant concrete hard standings including the airfield perimeter road and runways.
- Remnant airfield buildings and structures including the watch office, underground battle headquarters and the dome teacher (aka Langham Dome).
- Two public footpaths and one byway cross the site.
- Some elevated, expansive views from the edges of the site across the tributary farmland landscape to the south and west, and north to the coast and the sea.

Valued features and qualities of the Airfield

- Cultural heritage value as a former RAF WW2 airfield, with some original built features retained, including the Langham Dome, built in 1942 as a state-of-the-art anti-aircraft gunnery trainer. The rarity and importance of the dome is reflected in its designation as a Scheduled Monument, and it has recently been restored and opened as a visitor attraction, with extensive visitor interpretation and information features on the history of the airfield.
- Ecological value in the form of areas of deciduous woodland, a priority habitat.
- Predominant arable land use complements that of the surrounding LCT.

[23] Detailed information about landscape character and valued features of the wider ROF LCT is set out in the North Norfolk Landscape Character Assessment (2018)

Langham

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of Langham Airfield against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	A largely flat, slightly concave plateau-like landform, with a prominent skyline featuring the Cockthorpe telecoms mast on the north-west edge of the airfield. The vertical metal feed silos of the poultry sheds also appear on the skyline in a number of views, although they are much less prominent than the mast. In views from the west, church towers at Cockthorpe and Blakeney form historic landmark features on the skyline. The largely flat, uniform landform lowers sensitivity to all forms of development except reservoirs, and the the telecoms mast has introduced a modern, vertical feature on the skyline. However, this is balanced out by the fact that the telecoms mast is the single prominent modern feature on the skyline, with occasional landmark church towers the only other skyline features, meaning that the skylines are predominantly undeveloped. Overall, sensitivity to the taller developments would not be strongly influenced in either direction by these attributes.	↑	–	–	↓	↓	–	–	–	↑
Landcover	A combination of predominantly arable farmland, woodland blocks and shelter belts, and remnant airfield hard standings (roads/tracks and aprons) with original and modern built form. The predominant arable landcover across the site does not strongly influence sensitivity in either direction, except for onshore cable routes	–	–	–	–	↓	–	–	–	–

Langham

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	(which indicates a reduced sensitivity as this type of land cover is able to easily recover from the temporary cable laying phase). The discrete deciduous woodland areas, which are a priority habitat, would have a higher sensitivity to all forms of development in these localised areas. The areas of the site with hardstanding and existing built form are likely to have a lower landcover sensitivity to all forms of development, depending on the interplay of other criteria.									
Sense of openness/ enclosure	A generally open character, however enclosure and screening is provided from certain directions by the linear shelter belts, woodland blocks and hedgerows within and surrounding the airfield. This results in generally increased sensitivity to developments incorporating taller structures, such as wind turbines, whilst having less influence on the lower-lying developments.	↑	↑	↑	–	–	–	–	–	–
Scale (landform and component features), landscape pattern & complexity	The airfield landscape is of a medium to large scale, broadly in line with the surrounding tributary farmland, with simple, geometric arable fields arranged inside the perimeter road. The fields are divided by the former arrangement of runways and hardstandings, which now incorporates some shelter belts. The large, regular scale of the area generally reduces susceptibility to all development types, as these could be more easily accommodated without harm to the overall landscape pattern or individual features.	↓	↓	↓	↓	×	↓	↓	↓	↓
Sense of tranquillity/ remoteness/ rurality & level of	The airfield is tranquil, with a sense of remoteness which draws on the generally undeveloped character of the surrounding landscape, which is reflected in its designation wholly within	↑	↑	↑	↑	↑	↑	↑	↑	↑

Langham

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
human influence Undeveloped Coast policy area	the AONB, and partly within the Undeveloped Coast policy area. Despite the airfield being a man-made feature in the landscape, the built form present does not significantly detract from the sense of rurality, tranquillity and remoteness, and the minor road through the site is lightly trafficked. These qualities generally increase sensitivity to all forms of development under consideration.									
Time depth / historical continuity	Notwithstanding its historic interest as a former WW2 airfield, the site does not contain any historic landscape types identified by the Norfolk HLC, and is categorised as comprising 20th Century agricultural enclosures, which generally have a lower susceptibility to all forms of development, due to the limited time depth and historic qualities.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The airfield is wholly within the Norfolk Coast AONB. Any of the types of development under consideration in this study have the potential to adversely affect the AONB's defined special qualities to some extent, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. As a result, the presence of these nationally valued landscapes increases sensitivity to all forms of development within or affecting these areas.	↑	↑	↑	↑	↑	↑	↑	↑	↑
Other indicators of value	<u>High scenic quality:</u> The high scenic quality is recognised through AONB designation (see above), which incorporates the whole of the airfield.	↑	↑	↑	↑	↑	↑	↑	↑	↑

Langham

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	Representativeness: The majority of the airfield is relatively typical arable farmland and is not a particularly important example of a World War 2 airfield.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Rarity: This is not a rare type of landscape.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Intactness: The landscape is not particularly intact as it has been regularly modified following construction of the WW2 airfield from former farmland, with subsequent reversion to arable and more recent introduction of built form such as the poultry sheds and solar panels.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Nature conservation & cultural heritage interests: The Langham Dome is a Scheduled Monument, however this designation does not apply more widely to any other parts of the airfield. Nevertheless its presence increases sensitivity.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	There are no nature conservation designations within the site, and priority habitats are restricted to two areas of deciduous woodland which could be avoided.	–	–	–	–	–	–	–	–	–
	Recreational value: Three Public Rights of Way are present within or along the boundary of the airfield. The Langham Dome is also a notable visitor attraction.	↑	↑	↑	↑	↑	↑	↑	↑	↑
	Literary / artistic associations: There are no known famous literary/artistic associations with this airfield.	–	–	–	–	–	–	–	–	–

Langham

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the airfield sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire airfield site. Notable areas where sensitivity is higher or lower than typical are outlined within the table.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	Although the flat landform, typically large landscape scale and regular landscape pattern of modern arable fields might reduce sensitivity to large scale wind turbines in some situations, in this case the open, exposed and predominantly tranquil rural character and generally undeveloped skylines punctuated by occasional historic landmark features all increase sensitivity. The landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and dark skies. The presence of large scale wind turbines in this location, which would be extensively visible as prominent skyline features within the AONB, is likely to conflict with its nationally valued undeveloped and naturalistic qualities. Overall, typical sensitivity to this scale of turbine is therefore considered to be **high**. This scale of turbine could also affect the special interest and appreciation of the Langham Dome Scheduled Monument and the neighbouring listed church towers in locations such as Cockthorpe, Langham and Blakeney.	**High**
Medium scale wind turbines, (up to 60m hub height)	Although the flat landform, typically large landscape scale and regular landscape pattern of modern arable fields might reduce sensitivity to medium scale wind turbines in some situations, in this case the open, exposed and predominantly tranquil rural character and generally undeveloped skylines punctuated by occasional historic landmark features all increase sensitivity. The landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and dark skies. The presence of medium scale wind turbines in this location, which would be extensively visible as prominent skyline features within the AONB, is likely to conflict with its nationally valued undeveloped and naturalistic qualities. Overall, typical sensitivity to this scale of turbine is therefore considered to be **high**. This scale of turbine could also affect the special interest and appreciation of the Langham Dome Scheduled Monument and the neighbouring listed church towers in locations such as Cockthorpe, Langham and Blakeney.	**High**
Small scale wind turbines, (up to 30m hub height)	Whilst the flat landform, relatively large landscape scale and regular landscape pattern of modern arable fields might reduce sensitivity to small scale wind turbines in some situations, this is counterbalanced by the open, exposed and predominantly tranquil rural character and generally undeveloped skylines punctuated by occasional historic landmark features, which increase sensitivity. The landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and dark skies. Small scale wind turbines in this location would be visible on the generally undeveloped skyline within the wider AONB beyond the airfield site, potentially in combination with landmark church towers. The extent of visibility would be dependent on siting and the degree of screening provided by on site features such as woodland blocks and shelter belts; however, there is likely to be some degree of conflict with the undeveloped and naturalistic qualities of the AONB. Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**. This scale of turbine could also affect (again, dependent on siting/screening) the special interest and appreciation of the Langham Dome Scheduled Monument and the neighbouring listed church towers in locations such as Cockthorpe, Langham and Blakeney.	**Moderate-High**

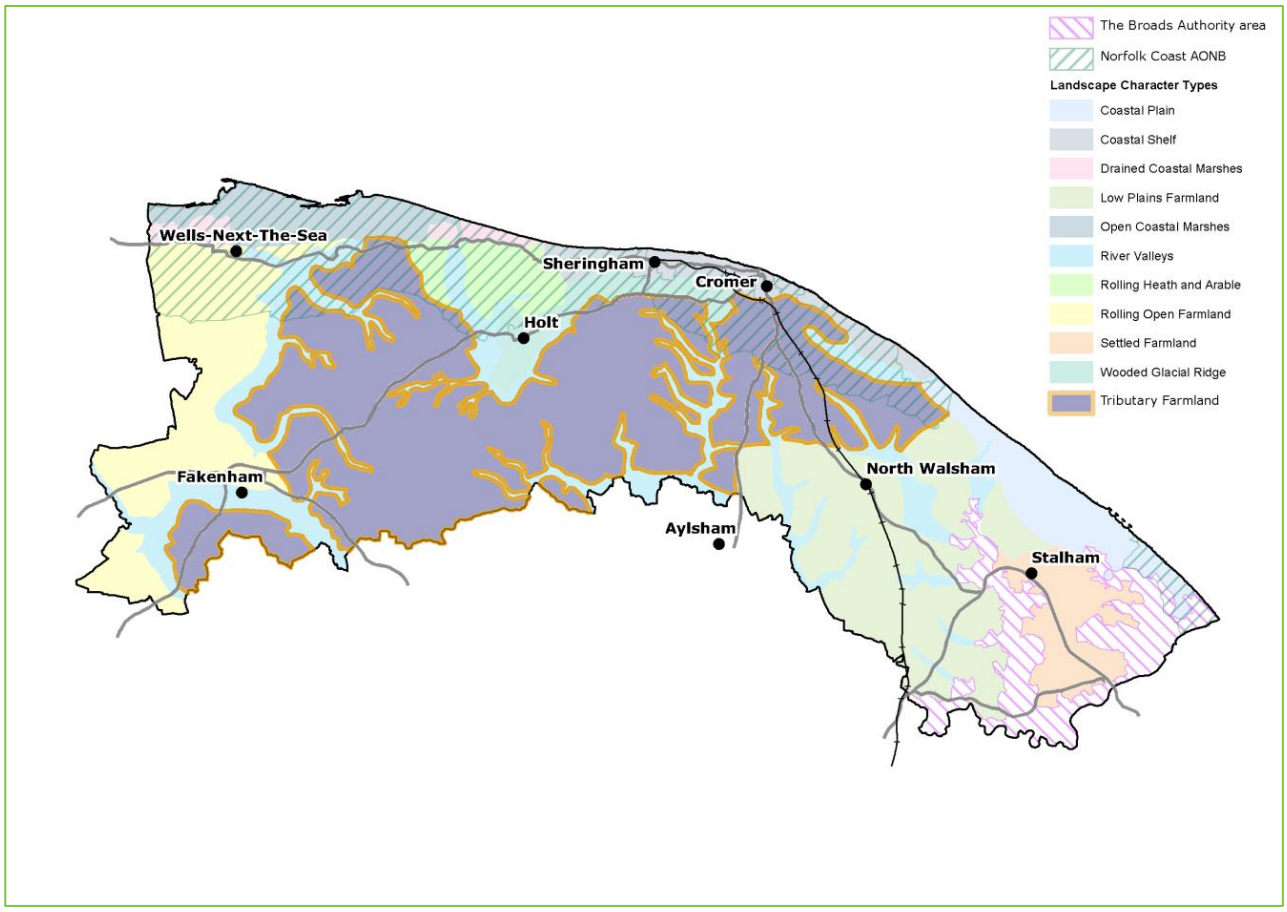
Langham

Field-scale solar PV development (above 5MW capacity or 15 hectares site area and above)	The generally flat landform includes some subtle but potentially significant variations in respect of sensitivity to field-scale solar PV development. Viewed from both the east and west, the northern half of the airfield site gently rises to the north, which would increase the prominence of solar panels sited here (and therefore sensitivity) particularly in the absence of existing internal hedgerows to the arable fields. Fields in the southern half of the site are flatter, which would reduce the prominence of solar panels. Screening is currently restricted to the established woodland blocks and occasional immature perimeter hedgerows; however, existing hedgerow and woodland screening could be sensitively increased without detriment to the wider landscape character. The relatively large landscape scale and regular landscape pattern of modern arable fields reduces sensitivity to solar panels, which is counterbalanced by the rural and tranquil character, which increases sensitivity to the perceived urban/industrial quality or appearance of solar panels. In addition to the above, the landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and dark skies. The presence of field-scale solar PV development in this location could adversely affect the nationally valued undeveloped character and naturalistic qualities of the AONB, with the degree of impact dependent on siting, screening and extent of visibility within the wider landscape beyond the airfield. Overall, typical sensitivity to this type of development is considered to be **moderate**. This form of development could also affect (again, dependent on siting/screening) the special interest and appreciation of the Langham Dome Scheduled Monument.	**Moderate**
Onshore cable routes (for offshore wind farms)	The relatively flat, uniform landform, general absence of naturalistic landcover and low time depth reduce sensitivity to onshore cable routes. However, this is counterbalanced by the sense of tranquillity and remoteness, and the high landscape value reflected in the designation of the site within the AONB, which increase sensitivity. Subject to careful routeing, direct loss of important landscape features would be unlikely to occur and visibility of the cable trench during the landcover recovery phase would be limited beyond the site. However, it is acknowledged that the temporary construction activities associated with this form of development could potentially have an impact beyond the site, in terms of more widely affecting the special AONB qualities of undeveloped coastal character, tranquillity and remoteness. Overall, typical sensitivity to this type of development is considered to be **moderate**.	**Moderate**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	The relatively flat landform, large landscape scale, low time depth, general absence of naturalistic landcover and presence of some higher screening planting (shelter belts / woodland blocks) all reduce sensitivity to industrial type developments, which typically include a combination of lower and taller elements. However, this is counterbalanced by the predominantly open and exposed landscape character, generally undeveloped skylines, sense of tranquillity and remoteness, and the high landscape value reflected in the designation of the site within the AONB, which all increase sensitivity. The landscape within the AONB is underpinned by its special qualities of natural beauty, including its undeveloped coastal character of particularly high scenic quality, strong and distinctive links between land and sea, sense of remoteness, tranquillity and dark skies. The presence of industrial type developments in this location (particularly the taller elements which may be more widely visible on the skyline beyond the site), could conflict with the nationally valued undeveloped and naturalistic qualities of the AONB (depending on siting/screening). Overall, typical sensitivity to this type of development is considered to be **moderate-high**. Industrial type developments could also affect (again, dependent on siting/screening) the special interest and appreciation of the Langham Dome Scheduled Monument and the neighbouring listed church towers in locations such as Cockthorpe, Langham and Blakeney.	**Moderate-High**

Langham

Reservoirs (typical size range 2 – 5ha)	The relatively large landscape scale, general absence of naturalistic landcover, and presence of some higher screening planting (shelter belts and woodland blocks) all reduce sensitivity to reservoirs. However, this is counterbalanced by the largely flat landform and more open and exposed character of parts of the site, which make it more difficult to integrate or screen the reservoir embankments within the landscape, and the high landscape value reflected in the designation of the site within the AONB, which all increase sensitivity. Given the relatively low-lying nature of reservoirs, this form of development is unlikely to be a prominent feature on the skyline or be extensively visible from outside the airfield plateau. Notwithstanding this, the presence of reservoirs would introduce larger-scale modern development which could conflict with the special qualities of natural beauty of the AONB, including its undeveloped coastal character of particularly high scenic quality, sense of remoteness and tranquillity. Central, lower-lying parts of the site may have a locally lower sensitivity to accommodating reservoirs due to the greater ability to integrate and screen embankments, compared with the slightly higher and more exposed land around the perimeter, where reservoirs would be more prominent and therefore sensitivity would be locally higher. Overall, typical sensitivity to reservoirs across the airfield is considered to be **moderate.**	**Moderate**

Little Snoring



Little Snoring

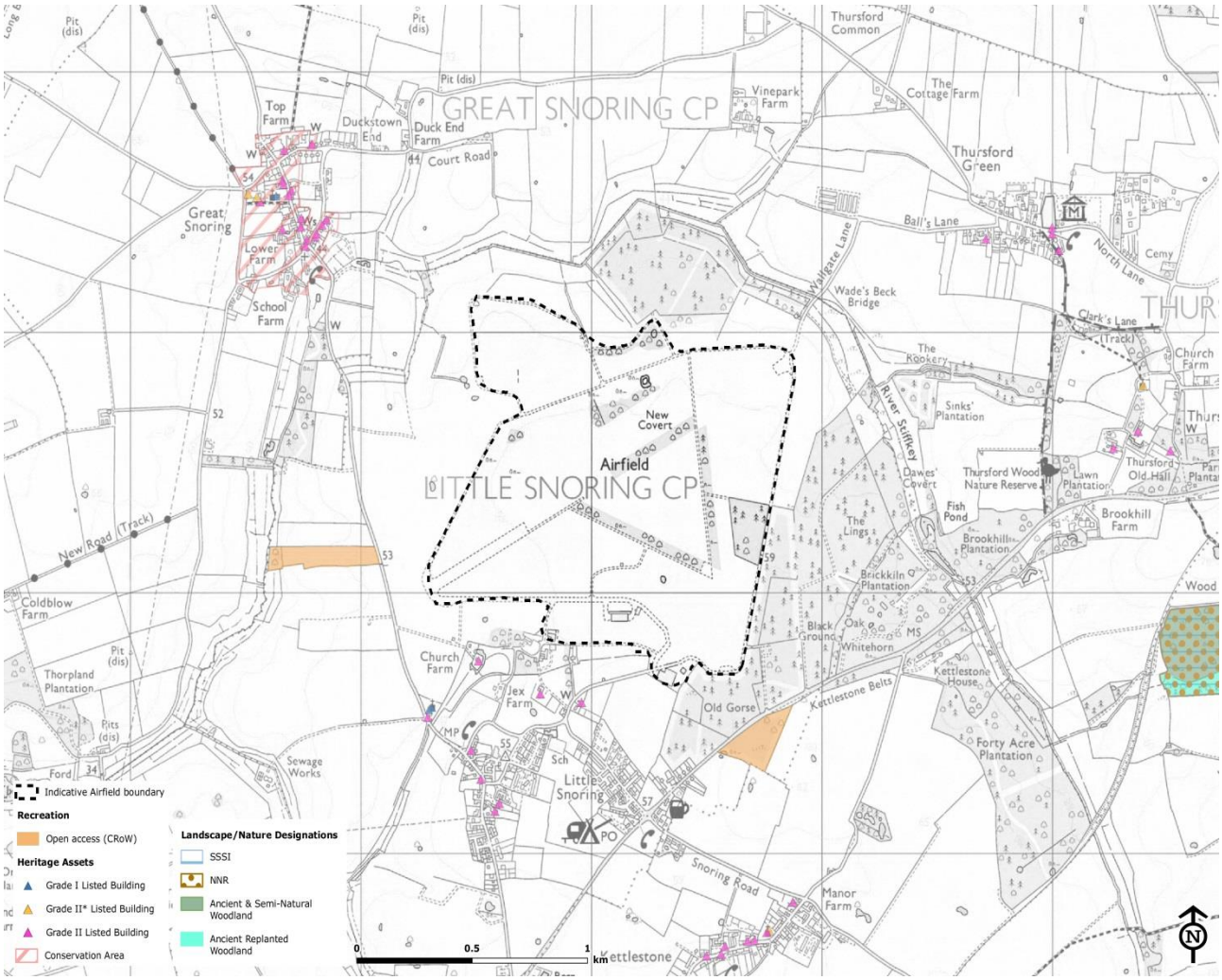
Baseline Landscape

Introduction to the Airfield

In common with many of the District's airfields, Little Snoring is a former RAF World War 2 airfield which became operational in 1943 as a base for aircraft from various RAF squadrons, and continued in use for military flying until 1953. Since 1958 the airfield has been in use for some civil general aviation flying, and remains operational today.

The airfield is located on an area of uniformly flat land south of the River Stiffkey valley, within the western part of the Tributary Farmland Type, and is characterised by a combination of open arable farmland, grassland, planted woodland blocks and shelterbelts and varied built form (described below). The surrounding landscape is dominated by gently undulating, medium to large scale arable farmland, dissected by the Stiffkey valley which contains pasture and woodland, and extensive areas of mature mixed forestry plantations on heathy ground to the east of the airfield.

The airfield lies outside any landscape designations, with the closest such designation being the Norfolk Coast AONB, which is 5.5km to the north of the site.



Little Snoring

Key Characteristics of the Airfield[24]

- An extensive area of flat land, of between 50-58m AOD. The surrounding land, apart from the Stiffkey valley, is of a similar elevation with no notable vantage points overlooking the airfield.
- One of the original runways remains operational (part concrete and part grass).
- Arable land use across the majority of the site, and an area of grassland in the south-eastern corner.
- Some linear deciduous and mixed woodland areas have developed along the line of former runways, in addition to larger deciduous and mixed woodland blocks, which provide enclosure and break up the open expanse of the airfield site, particularly when viewed from the east.
- Viewed from the west along the Little Snoring Road, the site has a relatively open and exposed character.
- The original concrete perimeter road/track has survived largely intact. The eastern part of the perimeter road is now a public road, running between the villages of Little Snoring and Thursford Green.
- Buildings include two large, original hangars, the original control tower, more modern smaller hangars and an airfield clubhouse. Light aircraft manufacturing and maintenance is undertaken on the site.
- There are no designated heritage assets within the site.

Valued features and qualities of the Airfield

- Historic interest as a former RAF WW2 airfield, with some original built features retained, such as the control tower building, hangars and hard standings indicating former runways and perimeter roads/tracks.
- Recreational value as an operational airfield for civil general aviation.
- Arable land use complements that of the surrounding LCT.
- Some features of ecological value, including deciduous woodland, which is classified as a priority habitat, grassland and heathy margins.

[24] Detailed information about landscape character and valued features of the wider ROF LCT is set out in the North Norfolk Landscape Character Assessment (2018)

Little Snoring

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of Little Snoring Airfield against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	Flat landform with very little variation across the majority of the site. The northern edge of the site drops down slightly towards the River Stiffkey. The skylines are generally undeveloped and formed by the surrounding woodland, or more distant woodland on the horizon. Some historic landmark features are visible in certain views, for example, the tower of the Grade I Church of St. Mary, Great Snoring in views north-west across the airfield from the south-east, and the Grade I detached tower of St. Andrews Church, Little Snoring, which is sited 400m to the south-west of the airfield. A cluster of large scale wind turbines in King's Lynn and West Norfolk District is also visible, but not prominent, as a long-range skyline feature (approximately 14km away) in views west across the airfield from the east. Whilst the flat, uniform landform generally reduces sensitivity to wind turbines, this is outweighed by the predominantly undeveloped skylines, which increases sensitivity to wind turbines. The flat landform reduces sensitivity to field-scale solar PV developments and onshore cable routes, whilst increasing sensitivity to reservoirs. The flat landform balances out the generally undeveloped skylines in respect of sensitivity to industrial type	↑	↑	↑	↓	↓	–	–	–	↑

Little Snoring

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	developments.									
Landcover	A combination of predominantly arable farmland, woodland blocks and shelter belts, and remnant airfield hard standings (roads/tracks and aprons) with original and modern built form. The predominant arable landcover across the site does not strongly influence sensitivity in either direction, except for onshore cable routes, as arable land is able to recover easily from the temporary cable laying phase. The discrete deciduous woodland areas, which are a priority habitat, would have a higher sensitivity to all forms of development in these localised areas. The areas of the site with hardstandings and existing built form are likely to have a lower landcover sensitivity to all forms of development.	–	–	–	–	↓	–	–	–	–
Sense of openness/ enclosure	A generally open character, however enclosure and screening is provided from certain directions by the linear shelter belts and woodland within and surrounding the airfield; with the western part more open than the east. The degree of enclosure to the lower lying developments (excluding wind turbines) could vary significantly, depending on siting within the airfield in relation to these screening elements. This results in generally increased sensitivity to developments incorporating taller structures, such as wind turbines, whilst having less influence on the lower-lying developments.	↑	↑	↑	–	–	–	–	–	–
Scale (landform and component features), landscape	The airfield landscape is of a medium to large scale, broadly in line with the surrounding tributary farmland, with simple, geometric arable fields arranged inside the perimeter road. The fields are divided by the former arrangement of	↓	↓	↓	↓	×	↓	↓	↓	↓

Little Snoring

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
pattern & complexity	runways and hardstandings, which now incorporates some shelter belts, helping break up the expanse of the airfield. The large, regular scale of the area generally reduces susceptibility to all development types, as these could be more easily accommodated without harm to the overall landscape pattern or individual features.									
Sense of tranquillity/ remoteness/ rurality & level of human influence	The airfield is relatively tranquil, and reflects the strongly rural character of its surroundings, with the minor public road along the boundary being very lightly trafficked. There is also a feeling of remoteness in parts, due to the isolation created by the dense woodland enclosing the site to the east, and the perception of there being little human influence, as the nearest settlement of Little Snoring is not prominent from any part of airfield. This is balanced out by the fact that this is an operational airfield, with some modern built form, movement and noise relating to intermittent take offs and landings, and activity associated with the commercial uses of the hangars. Therefore, these attributes are not considered to strongly influence sensitivity in either direction, in relation to all the forms of development under consideration.	–	–	–	–	–	–	–	–	–
Time depth / historical continuity	The site is identified by the Norfolk HLC as a military airfield (20th Century), which will generally have a lower susceptibility to all forms of development, due to the limited time depth and historical continuity.	↓	↓	↓	↓	↓	↓	↓	↓	↓

Little Snoring

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The airfield is not within or in close proximity to any landscape designations, with the nearest such designation being the Norfolk Coast AONB, which is 5.5km to the north of the site. Given this separation, the lower-lying developments (all except the taller wind turbines) are unlikely to affect the defined special qualities of the AONB, which include the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. Therefore, sensitivity to the lower-lying developments is reduced. In the case of large and medium scale turbines, these may form skyline features visible from within the AONB, and therefore have the potential to affect these special qualities to some extent.	–	–	↓	↓	↓	↓	↓	↓	↓
Other indicators of value	<u>High scenic quality:</u> The landscape within the airfield is of a moderate scenic quality due to the combination of flat landform, relatively large scale regular arable landcover, modern built form, mixed woodland and presence of historic church towers in some views. <u>Representativeness:</u> The majority of the airfield is relatively typical arable farmland and is not a particularly important example of a World War 2 airfield. <u>Rarity:</u> This is not a rare type of landscape.	–	–	–	–	–	–	–	–	–
		↓	↓	↓	↓	↓	↓	↓	↓	↓
		↓	↓	↓	↓	↓	↓	↓	↓	↓

Little Snoring

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	<u>Intactness:</u> The landscape is not particularly intact as it has been regularly modified following construction of the WW2 airfield from former farmland, with subsequent reversion to arable and more recent introduction of built form such as additional hangars.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	<u>Nature conservation & cultural heritage interests:</u> There are no cultural heritage designations within the site. The taller developments may be viewed in combination with the Grade I listed church towers at Little Snoring and Great Snoring, and from the Conservation Area at Great Snoring, which has the potential to affect the special interest and appreciation of these assets, depending on factors such as siting, scale, etc.	↑	↑	–	–	–	–	–	–	–
	There are no nature conservation designations within the site, and priority habitats are restricted to discrete areas of deciduous woodland.	–	–	–	–	–	–	–	–	–
	<u>Recreational value:</u> No Public Rights of Way are present within the airfield, and recreational value is limited to civil aviation. Two areas of Open Access Land (forestry plantations) are situated adjacent to the airfield.	–	–	–	–	–	–	–	–	–
	<u>Literary / artistic associations:</u> There are no known famous literary/artistic associations with this airfield.	–	–	–	–	–	–	–	–	–

Little Snoring

Overall sensitivity to different development types

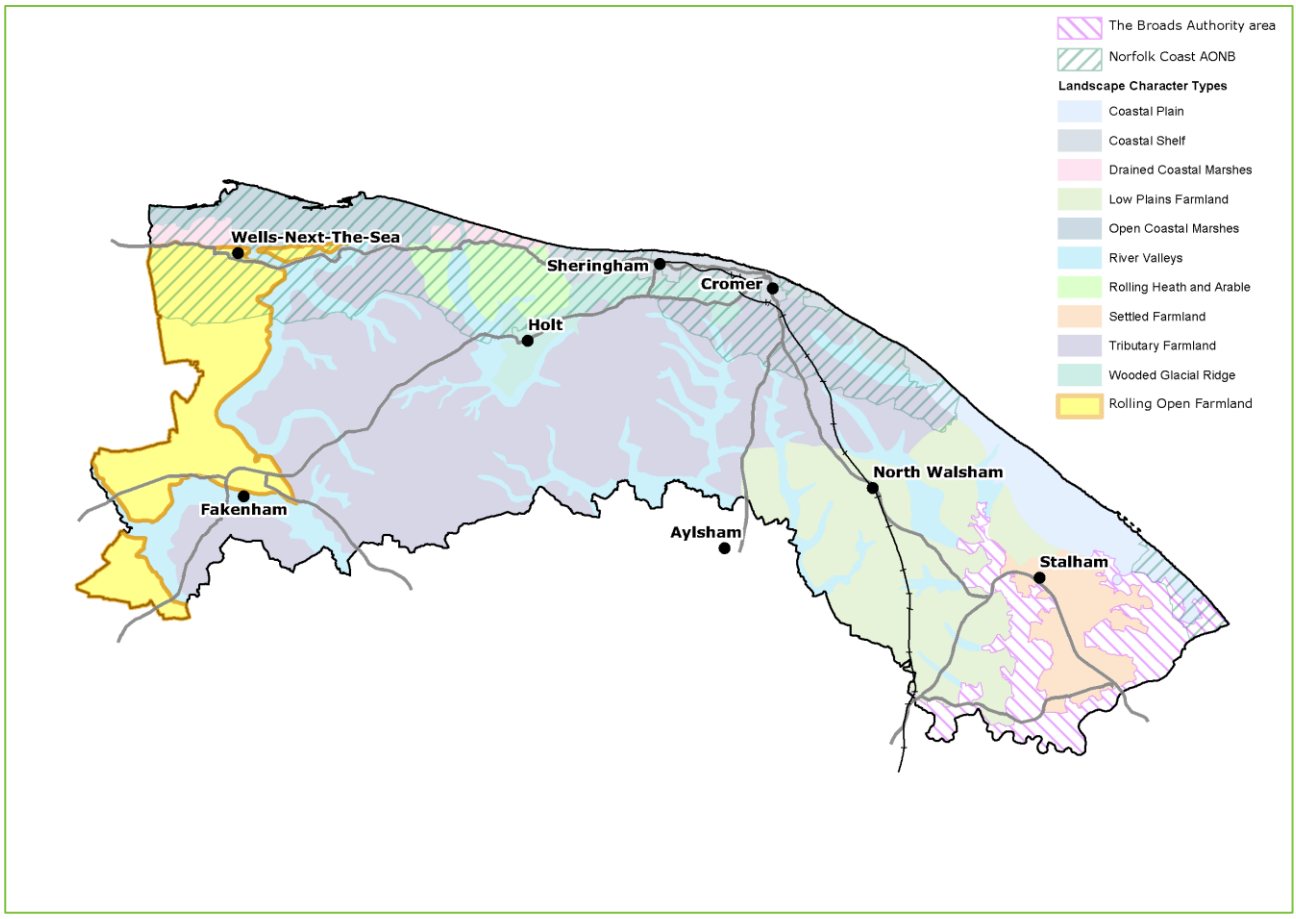
The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the airfield sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire airfield site. Notable areas where sensitivity is higher or lower than typical are outlined within the table.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage, wildlife and earth science designations generally reduces sensitivity to large scale wind turbines, this is counterbalanced by the predominantly undeveloped skylines, presence of neighbouring vernacular settlements and landmark church towers, and strongly rural character with a sense of tranquillity and remoteness, which increase sensitivity. Large scale wind turbines would be a dominant modern feature on the skyline in this location, and may also be visible from within the AONB to the north. Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
Medium scale wind turbines, (up to 60m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, relatively low landscape value, presence of woodland providing a degree of enclosure/screening, and absence of on-site cultural heritage, wildlife and earth science designations generally reduces sensitivity to medium scale wind turbines, this is counterbalanced by the predominantly undeveloped skylines, presence of neighbouring vernacular settlements and landmark church towers, and strongly rural character with a sense of tranquillity and remoteness, which increase sensitivity. Overall, typical sensitivity to this scale of turbine is considered to be **moderate**.	**Moderate**
Small scale wind turbines, (up to 30m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage, wildlife and earth science designations generally reduces sensitivity to small scale wind turbines, this is counterbalanced by the predominantly undeveloped skylines and potential intervisibility (depending on siting/screening) with the surrounding TF landscape, which increase sensitivity (the presence of small scale turbines as modern features on the skyline could conflict with the undeveloped and tranquil qualities and long uninterrupted views in the LCT). Overall, typical sensitivity to this scale of turbine is considered to be **low-moderate**.	**Low-moderate**
Field-scale solar PV development (above 5MW capacity or 15 hectares site area and above)	Typical sensitivity across the airfield to field-scale solar PV development is considered to be **moderate**. The flat, uniform landform, relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, and presence of some linear areas of woodland screening reduce sensitivity to field-scale solar PV development. However, there are no hedgerows present within the site, so without new screening planting solar panels located in the western part of the airfield would be fully exposed in views from Little Snoring Road and parts of Thursford Road, and would therefore appear as quite prominent and extensive modern features in the landscape, affecting the existing sense of rurality in the LCT. Areas of the airfield where solar panels could be more significantly screened by existing woodland, such as some central parts, would have a lower sensitivity to such development.	**Moderate**
Onshore cable routes (for offshore wind farms)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, general absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, presence of some higher screening planting (woodland belts/blocks) all reduce sensitivity to onshore cable routes, as direct loss of important landscape features would be unlikely to occur (subject to careful routeing) and visibility of the cable trench would be very limited beyond the site. The sense of tranquillity within and surrounding the site could also be affected by	**Low-moderate**

Little Snoring

	the temporary construction activities associated with this form of development. Overall, typical sensitivity to onshore cable routes in considered to be **low-moderate**.	
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, general absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, and presence of some higher screening planting (woodland belts/blocks) all reduce sensitivity to industrial type developments. However, this is counterbalanced by the more open and exposed character of parts of the site, the predominantly undeveloped skylines with some local landmark church towers and potential intervisibility (depending on siting/screening) with the surrounding TF landscape, which increase sensitivity (the presence of the taller elements of industrial type developments on the skyline could conflict with the sense of rurality, tranquillity and long uninterrupted views of the LCT). Overall, typical sensitivity to this type of development is considered to be **moderate**. Areas of the airfield where industrial type development could be more significantly screened by existing woodland, such as some central parts, would have a lower sensitivity to such development.	**Moderate**
Reservoirs (typical size range 2 – 5ha)	The flat, uniform landform and more open and exposed character of parts of the site would make it more difficult to naturally integrate or screen reservoir embankments within the landscape, which increases sensitivity in these locations. However, this is counterbalanced by the relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, and presence of some higher screening planting (woodland belts and blocks), which reduce sensitivity to reservoirs. Overall, typical sensitivity to this type of development is considered to be **moderate**.	**Moderate**

North Creake



North Creake

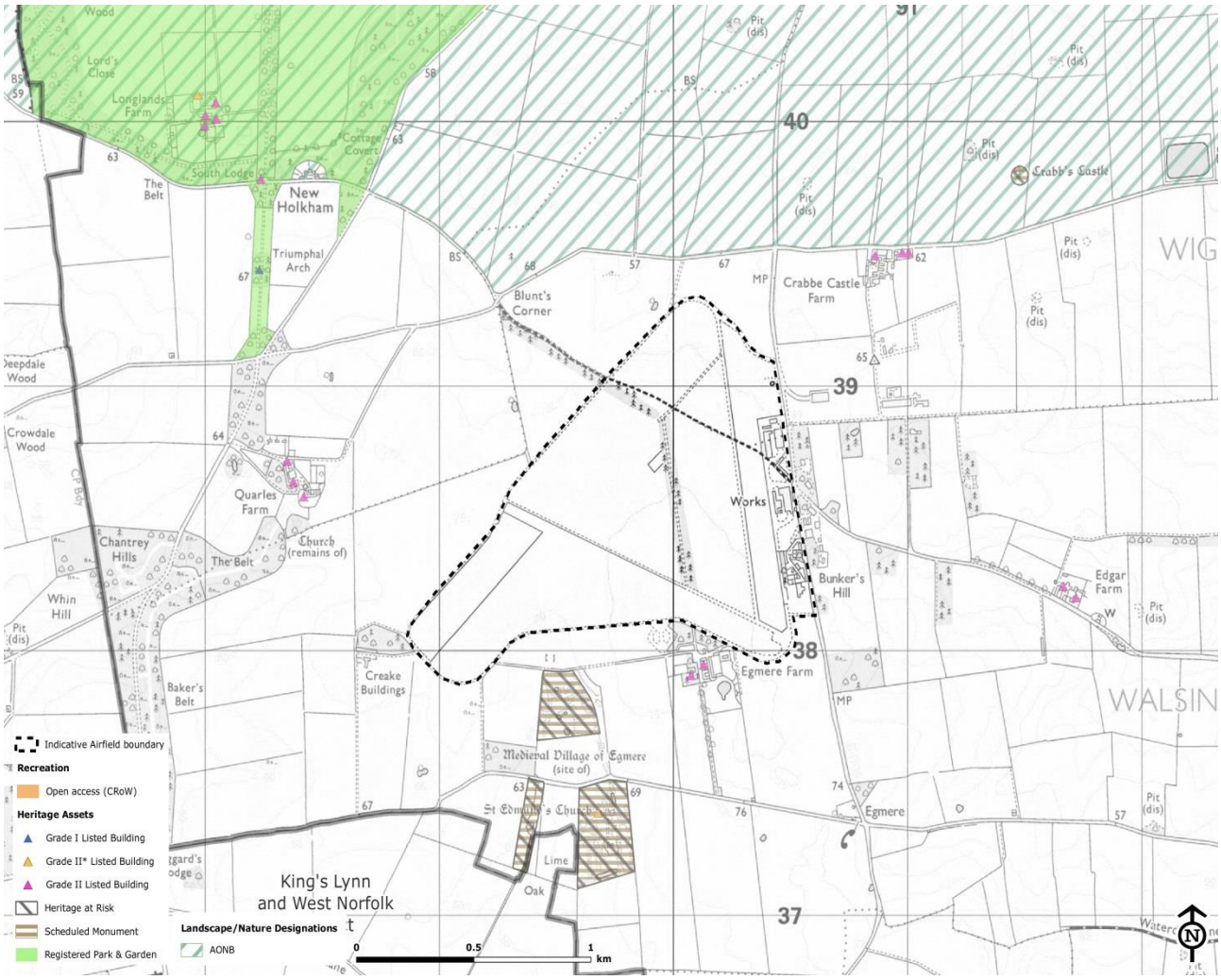
Baseline Landscape

Introduction to the Airfield

In common with many of the District's airfields, North Creake is a former RAF World War 2 airfield which became operational in 1943 as a base for aircraft from RAF Group 100 Bomber Command until the end of the war. It was closed and sold in 1947.

The airfield is located on a flatter plateau area within the northern part of the Rolling Open Farmland Type, and is characterised by a combination of open arable farmland, a solar farm and varied built form (described below). The surrounding landscape is open, gently rolling arable farmland with relatively large, geometric fields enclosed by hedgerows, with limited woodland cover (except within and enclosing Holkham Park), relatively few field/hedgerow trees and sparse settlement.

The airfield lies outside any landscape designations, although the Norfolk Coast AONB boundary lies approximately 150 metres to the north of the site. The North Norfolk Heritage Coast and North Norfolk's Undesignated Coast local designation are also situated 4km and 2.5km, respectively, to the north of the site. In addition, the Grade I registered parkland of Holkham Hall lies 1.2km to the north-west.



North Creake

Key Characteristics of the Airfield[25]

- A flat, slightly domed plateau area of between 70-75m AOD.
- Part of the former airfield area (approximately 40ha) is in use as a field-scale solar PV facility, with a 20MW capacity.
- Arable land use around the solar farm, on the remainder of the former airfield.
- Linear coniferous shelter belts provide a degree of enclosure and screening from the north, east and west.
- Despite the presence of the shelter belts, the site has a predominantly open, exposed character, although views into the site are restricted by the flat plateau landform, with no surrounding higher viewpoints.
- Remnant hard standings including airfield perimeter road.
- Significant (for the District) concentration of built form to the east of the former runway area, incorporating some of the former airfield structures, such as hangars and the control tower (restored and now in use as bed & breakfast accommodation), residential properties and an electricity substation. Some large scale buildings, including agricultural storage and feedstock manufacturing, anaerobic digestion plant, and beyond the site to the east of the B1105, recent development associated with the servicing of offshore wind farms. Appropriate development has been encouraged through the designation of a local enterprise zone by North Norfolk District Council.
- No designated heritage assets within the site, although the Scheduled Monument of Egmere medieval village (with Grade II* ruined church), and listed buildings at Egmere Farm, lie to the immediate south of the airfield, the Grade 1 Registered Park and Garden of Holkham Hall and listed Quarles Farm are to the north west and the listed buildings that make up Crabbe Castle Farm lie to the north east of the site.

Valued features and qualities of the Airfield

- Historic interest as former RAF WW2 airfield, with some original built features retained, such as control tower building and hard standings indicating former runways and perimeter roads.
- Arable land use complements that of the surrounding LCT, with built form restricted to low-rise solar PV panels which do not compromise the undeveloped skyline and open character of the LCT or the adjacent AONB.

[25] Detailed information about landscape character and valued features of the wider ROF LCT is set out in the North Norfolk Landscape Character Assessment (2018)

North Creake

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of North Creake airfield against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	A flat, slightly domed plateau comprising some of the highest land in the LCT, with a generally undeveloped skyline formed by farmland, coniferous shelter belts and small woodland blocks, together with some built form on the edge of the airfield area or immediately beyond, such as anaerobic digestion tanks, storage buildings, and low-rise electricity poles. There are no taller vertical structures present on or surrounding the site which are prominent on the skyline. Whilst the flat, uniform landform generally reduces sensitivity to wind turbines, this is outweighed by the predominantly undeveloped skylines of the wider LCT, which increases sensitivity to wind turbines, particularly as turbines sited on this local high point would be extensively visible from the surrounding area, including from the AONB. The flat landform reduces sensitivity to field-scale solar PV developments and onshore cable routes, whilst increasing sensitivity to reservoirs. The flat landform and degree of higher screening and enclosure balances out the generally undeveloped skylines in respect of sensitivity to industrial type developments, which may incorporate some taller elements.	↑	↑	↑	↓	↓	–	–	–	↑

North Creake

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Landcover	A combination of arable farmland, an existing solar PV development, linear coniferous shelter belts, airfield hard standings (roads/tracks and aprons) and existing built form. The predominant arable landcover across the site does not strongly influence sensitivity in either direction, except for onshore cable routes, due to the relative ease of restoring such landcover following the laying of cables. The smaller areas of the site with hardstandings and existing built form may have a lower landcover sensitivity to all forms of development, depending on the interplay of other criteria, such as detailed siting / scale / layout, etc.	–	–	–	–	↓	–	–	–	–
Sense of openness/ enclosure	A generally open character, however enclosure and screening is provided from certain directions by the linear shelter belts, woodland blocks and hedgerows within and surrounding the airfield. The sense of openness generally increases sensitivity to developments incorporating taller structures, such as wind turbines, whilst having a lesser influence on the lower-lying developments.	↑	↑	↑	–	–	–	–	–	–
Scale (landform and component features), landscape pattern & complexity	The airfield landscape is of a medium to large scale, broadly in line with the surrounding ROF farmland, with simple, geometric arable fields arranged inside the perimeter road. The fields are divided by the former arrangement of runways and hardstandings, which now incorporates some shelter belts. The large, regular scale of the area generally reduces susceptibility to all development types, as these could be more easily accommodated without harm to the overall landscape pattern or individual features.	↓	↓	↓	↓	×	↓	↓	↓	↓

North Creake

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of tranquillity/ remoteness/ rurality & level of human influence	The airfield and surroundings are relatively tranquil, with a sense of remoteness which draws on the generally undeveloped character of the wider ROF landscape; however, this is counterbalanced by the fact that this is a man-made feature in the landscape, and the significant concentration of built form and related regular vehicle activity within and to the immediate east of the airfield (known as Egmere Business Park), including the operational solar farm, AD plant and large scale grain stores. This degree of human influence and activity reduces the relatively high sense of tranquillity and rurality which is typical of the surrounding farmland.	–	–	–	–	–	–	–	–	–
Time depth / historical continuity	Notwithstanding its historic interest as a former WW2 airfield, the site does not contain any historic landscape types identified by the Norfolk HLC, and is categorised as comprising 20th Century agricultural enclosures, which generally have a lower susceptibility to all forms of development, due to the limited time depth and historic qualities.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The airfield does not contain any landscape designations; however, as noted above the Norfolk Coast AONB boundary lies approximately 150m to the north of the site. The North Norfolk Heritage Coast is situated 4km to the north of the site. The proximity to the AONB, and to a lesser extent the Heritage Coast, increases the overall sensitivity of the landscape to forms of development which are likely to have far reaching impacts that could affect the AONB's defined	↑	↑	↑	–	–	–	–	–	–

North Creake

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	special qualities, in particular the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. In this instance, taller structures such as wind turbines, which would be prominent skyline features on this local high point (with the degree of prominence depending on their scale), would likely be visible from the AONB, and could adversely affect the AONB's special qualities. For this reason the presence of the designation increases sensitivity to wind turbines on this site. Depending on siting/screening mitigation, other forms of development which incorporate some taller elements, such as substations, cable relay stations and AD plants, could also adversely affect these AONB special qualities for the same reasons, although they are likely to be of a lower typical height than small-scale wind turbines.									
Other indicators of value	<u>High scenic quality:</u> The landscape within the airfield is of a relatively low to moderate scenic quality due to the combination of flat landform, modern arable landcover, modern built form and coniferous shelter belts. <u>Representativeness:</u> The majority of airfield is relatively typical arable farmland and is not a particularly significant example of a World War 2 airfield. <u>Rarity:</u> This is not a rare example of a landscape type.	↓	↓	↓	↓	↓	↓	↓	↓	↓
		↓	↓	↓	↓	↓	↓	↓	↓	↓
		↓	↓	↓	↓	↓	↓	↓	↓	↓

North Creake

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	Intactness: The landscape is not particularly intact as it has been regularly modified following construction of the WW2 airfield from former farmland, with subsequent reversion to arable and more recent introduction of a solar farm, electricity lines/poles and coniferous shelter belts. Nature conservation & cultural heritage interests: There are no cultural heritage or nature conservation designations within the site, nor are any priority habitats present. The Scheduled Monument and listed church ruins at Egmere, listed buildings at Crabbe Castle Farm and Quarles Farm and the Grade I parkland at Holkham Hall are situated in relatively close proximity which increases sensitivity to those features that could be intervisible. Recreational value: Relatively little recreational value - one Public Right of Way (footpath) crosses the northern part of the airfield. Literary / artistic associations: There are no known famous literary/artistic associations with this airfield	↓ ↑ – –	↓ ↑ – –	↓ – – –	↓ ↓ – –	↓ ↓ – –	↓ ↓ – –	↓ ↓ – –	↓ ↓ – –	↓ ↓ – –

North Creake

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the airfield sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire airfield site. Notable areas where sensitivity is higher or lower than typical are outlined within the table.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage, wildlife and earth science designations generally reduces sensitivity to large scale wind turbines, this is outweighed by the predominantly undeveloped skylines and strong intervisibility with the surrounding ROF landscape and the AONB, which increase sensitivity (the presence of large scale turbines as prominent features on the skyline could conflict with the undeveloped and naturalistic qualities of the AONB and the ROF LCT). This scale of turbine could also affect the special interest and appreciation of the Scheduled Monument and listed church ruins at Egmere and the Grade I Holkham Hall parkland, which are both situated in relatively close proximity to the airfield. Overall, typical sensitivity to this scale of turbine is considered to be high.	**High**
Medium scale wind turbines, (up to 60m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage, wildlife and earth science designations generally reduces sensitivity to medium scale wind turbines, this is outweighed by the predominantly undeveloped skylines and strong intervisibility with the surrounding ROF landscape and the AONB, which increase sensitivity (the presence of large scale turbines as prominent features on the skyline could conflict with the undeveloped and naturalistic qualities of the AONB and the ROF LCT). This scale of turbine could also affect the special interest and appreciation of the Scheduled Monument and listed church ruins at Egmere and the Grade I Holkham Hall parkland, which are both situated in relatively close proximity to the airfield. Overall, typical sensitivity to this scale of turbine is considered to be high.	**High**
Small scale wind turbines, (up to 30m hub height)	Whilst the flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage, wildlife and earth science designations generally reduces sensitivity to small scale wind turbines, this is counterbalanced by the predominantly undeveloped skylines and potential intervisibility (depending on siting/screening) with the surrounding ROF landscape and the AONB, which increase sensitivity (the presence of small scale turbines as prominent features on the skyline could conflict with the undeveloped and naturalistic qualities of the AONB and the ROF LCT). This scale of turbine could also affect (again, dependent on siting/screening) the special interest and appreciation of the Scheduled Monument and listed church ruins at Egmere and the Grade I Holkham Hall parkland, which are both situated in relatively close proximity to the airfield. Overall, typical sensitivity to this scale of turbine is considered to be moderate-high.	**Moderate-High**
Field-scale solar PV development (above 5MW capacity or 15 hectares site area and above)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, and presence of some higher screening planting (shelter belts / woodland blocks) all reduce sensitivity to field-scale solar PV development. Some parts of the airfield are more open and exposed, with no or limited screening features, allowing views of the existing solar PV facility; however, PV panels are unlikely to be extensively visible from outside the site, including from within the AONB to the north, and would be unlikely to detract from its undeveloped character and naturalistic qualities, including the undeveloped skylines. Overall, typical sensitivity to this type of development is considered to be low-moderate.	**Low-Moderate**

North Creake

Onshore cable routes (for offshore wind farms)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, presence of some higher screening planting (shelter belts / woodland blocks), and lower than typical tranquillity (higher human intervention) all reduce sensitivity to onshore cable routes, as direct loss of important landscape features would be unlikely to occur and visibility of the cable trench would be very limited or non-existent beyond the site. Notwithstanding the presence of the AONB immediately to the north of the site, if considered in isolation the typical sensitivity of the airfield itself to onshore cable routes is considered to be low-moderate. However, it is acknowledged that the temporary construction activities associated with this form of development could potentially have a wider impact beyond the site, in terms of affecting the special AONB qualities of tranquillity and remoteness.	**Low-Moderate**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, and presence of some higher screening planting (shelter belts / woodland blocks) all reduce sensitivity to industrial type developments. However, this is counterbalanced by the more open and exposed character of parts of the site, the predominantly undeveloped skylines and potential intervisibility (depending on siting/screening) with the surrounding ROF landscape and the AONB, which increase sensitivity (the presence of the taller elements of industrial type developments on the skyline could conflict with the undeveloped and naturalistic qualities of the AONB and the ROF LCT). Overall, typical sensitivity to this type of development is considered to be moderate.	**Moderate**
Reservoirs (typical size range 2 – 5ha)	The relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage, wildlife and earth science designations, and presence of some higher screening planting (shelter belts / woodland blocks) all reduce sensitivity to reservoirs. However, this is counterbalanced by the flat, uniform landform and more open and exposed character of parts of the site, which make it more difficult to integrate or screen the reservoir embankments within the landscape. Given the relatively low-lying nature of reservoirs, this form of development is unlikely to be a prominent feature on the skyline or be extensively visible from outside the airfield plateau (a local high point), including from within the AONB to the north, and would be unlikely to detract from its undeveloped character and naturalistic qualities. Overall, typical sensitivity to this type of development is considered to be moderate.	**Moderate**

Sculthorpe

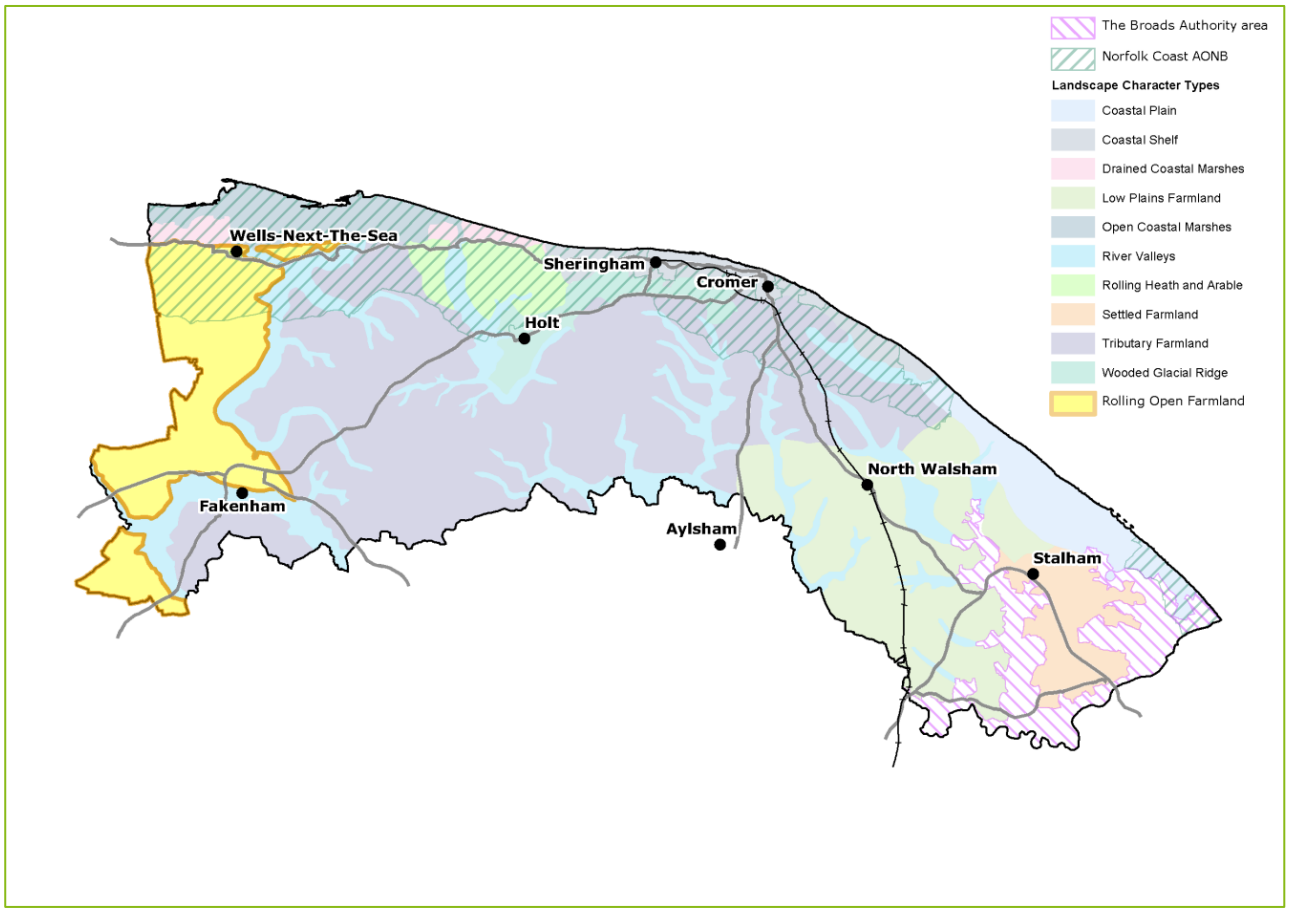

The Broads Authority area
Norfolk Coast AONB
Landscape Character Types
Coastal Plain
Coastal Shelf
Drained Coastal Marshes
Low Plains Farmland
Open Coastal Marshes
River Valleys
Rolling Heath and Arable
Settled Farmland
Tributary Farmland
Wooded Glacial Ridge
Rolling Open Farmland
Wells-Next-The-Sea
Sheringham
Cromer
Holt
North Walsham
Fakenham
Aylsham
Stalham


Image © 2018 Getmapping plc
Google earth

Sculthorpe

Baseline Landscape

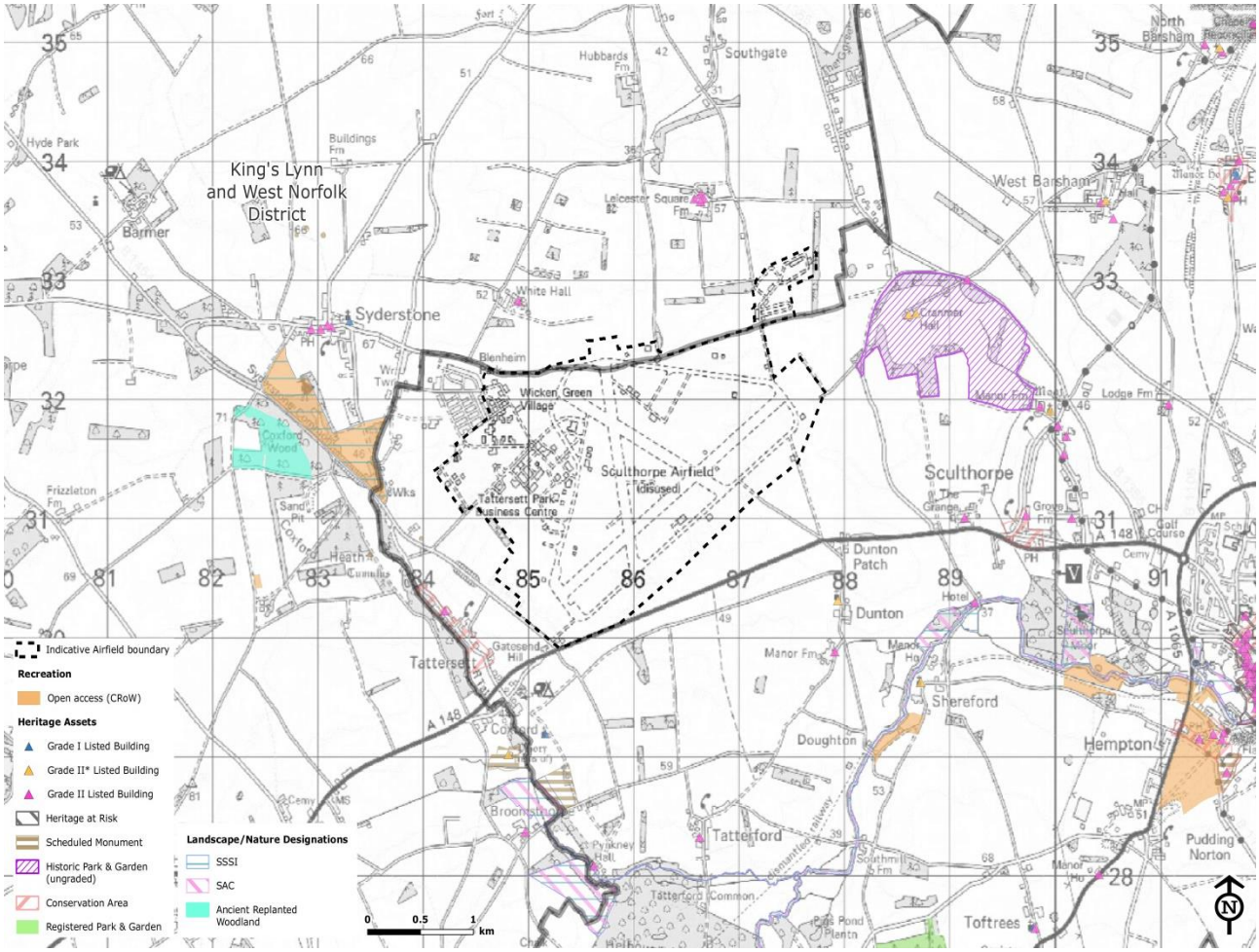
Introduction to the Airfield

RAF Sculthorpe became operational in 1943 as a satellite airfield to RAF West Raynham, having been constructed for heavy bomber use. During the Cold War period Sculthorpe became an important base for the USAF; by 1957 it was their biggest base in Europe, with 10,000 personnel. The airfield became inactive in the early 1990's, but the airfield is retained by the MOD for training purposes. The base's technical and domestic site was sold off in the mid-1990's, with the housing estate being refurbished and renamed to Wicken Green Village and the remaining site developed as an industrial park, the Tattersett Business Park.

The airfield is located on a low plateau on the western side of the Rolling Open Farmland Landscape Type, falling away to the north to the valley of the River Burn (within Kings Lynn and West Norfolk Borough), to the east towards Sculthorpe, located alongside a shallow tributary valley of the Wensum, and to the west/south-west into the valley of the River Tatt. To the south of the runways the plateau continues for some 1.5km before dropping down to the Wensum Valley. The surrounding area is characterised by large-scale arable farmland, with a significant component of woodland in the valleys.

The A148 runs close to the southern edge of the airfield, adjoining it in the south-western corner near the hamlet of Coxford, the B1454 also follows the boundary near this corner of the site for a short distance, and provides access to the Business Park, and Syderstone Road runs up to the north-western edge of the airfield.

The airfield lies outside any landscape designations, with the closest such designation being the Norfolk Coast AONB which is over 7km to the north of the site.



Sculthorpe

Key Characteristics of the Airfield[26]

- Wicken Green Village (the base's former living quarters), Tattersett Business Park (the former technical area) and the airfield, with surrounding grassland, cover an area in excess of 500 hectares, mostly situated on a low plateau framed by river valleys. Tattersett Business Park lies in a shallow valley extending east from the valley of the River Tatt.
- Sculthorpe is no longer an operation base but remains within the MOD estate as a training area, so some of the runways are currently still maintained and used on occasion. The control tower and adjacent fire station building remain, but most other airfield structures have been demolished.
- The site is largely open, with limited tree cover other than a small woodland block to the west of the Business Park, and several field boundary tree lines, but the airfield lies at a higher elevation than adjacent roads, so the site forms a low horizon beyond its perimeter fence, with no extensive visibility across its surface.
- Woodland plays a more significant role in the wider landscape, with a number of blocks and belts of trees breaking up the otherwise very open, arable landscape. There are sizeable woodlands on the western side of the valley of the River Tatt in particular. Nearby hamlets at Tattersett, Coxford and Dunton, and the village of Sculthorpe, lie in valley locations, and the village of Syderstone lies across flat land to the north-west of Wicken Green, There is no significantly higher land beyond the valleys, so visibility of the airfield and of built development in Wicken Green and at Tattersett Business Park is very limited.
- There are no designated heritage assets within the site.

Valued features and qualities of the Airfield

- The site has historic interest as a former RAF WW2 airfield that retains several buildings and runways.
- The site's open, expansive character is in keeping with the surrounding farmed landscape. Although the presence and character of built development has an impact on visual character and tranquillity in the immediate area, the airfield nonetheless retains a sense of remoteness, being set on a plateau that is not overlooked by surrounding land.
- The limited visual impact of the airfield means that the surrounding landscape is not significantly affected by its presence, and therefore retains a strong rural character, with undeveloped skylines.
- The grasslands within the airfield site are a scarce feature within the Rolling Open Farmlands Landscape Type, but they are not a sensitive or designated habitat type. The small area of deciduous woodland near the Business Park is classified as a priority habitat.

[26] Detailed information about landscape character and valued features of the wider ROF LCT is set out in the North Norfolk Landscape Character Assessment (2018)

Sculthorpe

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of Sculthorpe Airfield against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	The flat landform with very little variation across the majority of the site, other than the shallow valley where the Business Park is located, generally reduces sensitivity to most types of renewable development; however the larger wind turbines would impact on views from nearby valley locations. Flatter landforms make it harder to integrate reservoir earthworks, but visibility from the surrounding landscape is limited by the plateau character of the site. Skylines are undeveloped and so have a degree of sensitivity, but are not particularly distinctive, being formed of distant or more local woodlands and arable fields, and there are no particularly prominent skyline heritage features (e.g. churches) in the vicinity. The upper parts of a cluster of 5 medium scale (101m to tip) wind turbines in King's Lynn and West Norfolk District, located between Syderstone and Bagthorpe around 3km from the nearest edge of the site, are visible from some locations in the vicinity, as are 6 large scale (126.5m to tip) turbines just over 3km to the north. However these are not sufficiently dominant to reduce sensitivity.	↑	–	↓	↓	↓	↓	↓	↓	–
Landcover	Although the airfield grassland has some scarcity value within this generally arable landscape, and has ecological value for ground-nesting birds, it does	↓	↓	↓	↓	↓	↓	↓	↓	↓

Sculthorpe

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	not, given its context within a previously developed site, constitute a sensitive landscape element. The small areas of deciduous woodland have higher sensitivity, but most of the site is characterised by the presence of extensive hard surfacing and built elements, and is therefore considered less sensitive than more naturalistic land cover to all development types.									
Sense of openness/ enclosure	The site's open character increases sensitivity to wind turbines, which will be widely visible against the skyline, but lower level development is likely to be contained within the plateau landform.	↑	↑	↑	↓	↓	↓	↓	↓	↓
Scale (landform and component features), landscape pattern & complexity	The airfield is a large-scale but irregular landscape, lacking internal boundary features, and its extensive runway areas and built development (the Business Park and adjacent village) contrast with the geometric, arable landscape that surrounds it. This reduces susceptibility to all development types, as new development would not detract from any sensitive existing pattern.	↓	↓	↓	↓	×	↓	↓	↓	↓
Sense of tranquillity/ remoteness/ rurality & level of human influence	The site lies within a relatively remote, rural location, and the airfield's continued role as training site does not constitute an intensive use, but the retention of airfield surfaces and structures to support this use represents a level of human influence in the landscape, and the proximity of the Business Park and Wicken Green Village add to this. This offsets any increased sensitivity in terms of rurality and tranquillity for the lower-level development types that would not have a significant impact beyond the site area. However the site's plateau location means that existing development has only a limited impact on the character of	↑	↑	↑	–	–	–	–	–	–

Sculthorpe

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	the surrounding rural landscape, so wind turbine development, which would have greater impact on the surrounding area, increases sensitivity.									
Time depth / historical continuity	The site is identified by the Norfolk HLC as a military airfield (20th Century), which will generally have a lower susceptibility to all forms of development, due to the limited time depth and historical continuity.	↓	↓	↓	↓	↓	↓	↓	↓	↓
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The airfield is not within or in close proximity to any landscape designations, with the nearest such designation being the Norfolk Coast AONB, which is over 7km to the north of the site. Given this separation, the lower-lying developments (all except the taller wind turbines) are unlikely to affect the defined special qualities of the AONB, which include the undeveloped coastal character, sense of remoteness, tranquillity and wildness (and dark skies), and the strong and distinctive visual links between land and sea. Therefore, sensitivity to the lower-lying developments is reduced. In the case of large and medium scale turbines, these may form distant skyline features visible from within the AONB where vegetation and elevation permit, but their potential to a significantly affect special qualities is likely to be very limited.	–	–	↓	↓	↓	↓	↓	↓	↓
Other indicators of value	<u>High scenic quality:</u> The landscape within the airfield is of a relatively low scenic quality due to the combination of flat landform, absence of distinctive natural features and presence of built form.	↓	↓	↓	↓	↓	↓	↓	↓	↓

Sculthorpe

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	Representativeness: An absence of designations reflects the fact that the remaining features at Sculthorpe are not particularly valued in heritage terms as elements of a World War 2 / Cold War airfield. Changes since decommissioning, including sale of the domestic buildings and creation of the Business Park, have had a significant impact on its former character.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Rarity: This is not a rare type of landscape.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Intactness: Although the airfield retains a functional value it does not represent an intact landscape.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Nature conservation & cultural heritage interests: There are no cultural heritage designations within the site. Cranmer Hall is an unregistered historic park surrounded a Listed house, the nearest edge of which is c.0.5km from the airfield boundary.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	There are no nature conservation designations within the site, and priority habitats are restricted to a small area of deciduous woodland on one boundary.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Recreational value: No Public Rights of Way are present within the airfield and there is no public access, reducing sensitivity in relation to this criterion.	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Literary / artistic associations: No known famous literary/artistic associations.	–	–	–	–	–	–	–	–	–

Sculthorpe

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the airfield sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire airfield site. Notable areas where sensitivity is higher or lower than typical are outlined within the table.

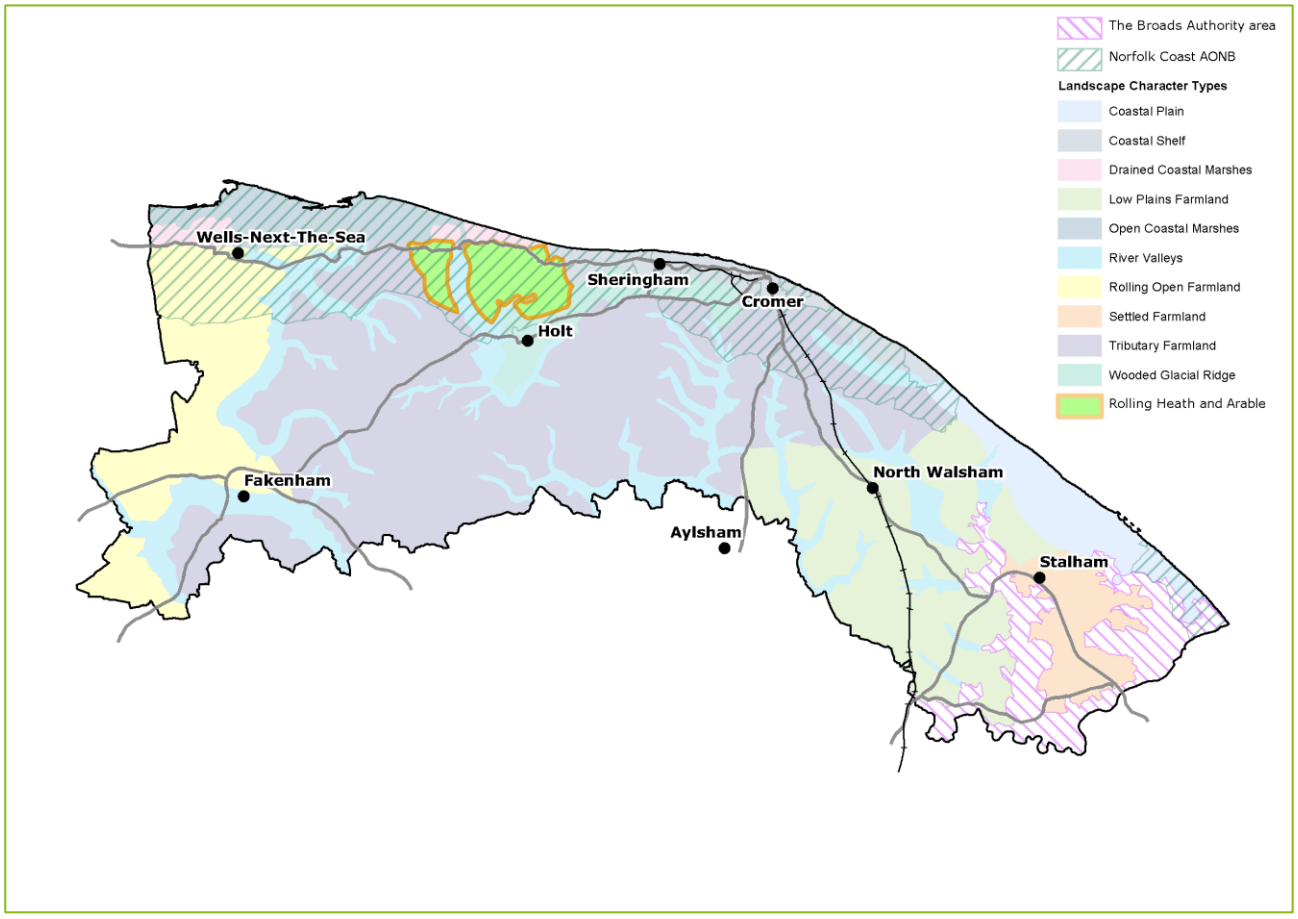
Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage and natural designations generally reduces sensitivity to large scale wind turbines, but the rural character and tranquillity of the surrounding area raise sensitivity. Large scale wind turbines would be a dominant modern feature on the skyline in this location, and may also be visible from within the AONB to the north. Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
Medium scale wind turbines, (up to 60m hub height)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage and natural designations generally reduces sensitivity to medium scale wind turbines, but the rural character and tranquillity of the surrounding area raise sensitivity. Medium scale wind turbines would be an evident modern feature on the skyline in this location, although views from surrounding valley locations are likely to be more limited by terrain and land cover, and there may be visibility from within the AONB to the north. Overall, typical sensitivity to this scale of turbine is considered to be **moderate**.	**Moderate**
Small scale wind turbines, (up to 30m hub height)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value and absence of on-site cultural heritage and natural designations generally reduce sensitivity to small scale wind turbines. The rural character and tranquillity of the surrounding area raise sensitivity, but although small scale wind turbines would be an intrusive modern feature the extent of their visibility would be limited by terrain and tree cover in the wider landscape. Overall, typical sensitivity to this scale of turbine is considered to be **low-moderate**.	**Low-moderate**
Field-scale solar PV development (above 5MW capacity or 15 hectares site area and above)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage and natural designations reduce sensitivity to field-scale solar PV development. The plateau location of the airfield means that there is unlikely to be any significant visibility of field scale solar PV development in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use significantly reduces sensitivity in comparison to the surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to field-scale solar PV development is considered to be **low**.	**Low**
Onshore cable routes (for offshore wind farms)	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage and natural designations reduce sensitivity to onshore cable routeing. The plateau location of the airfield means that there is unlikely to be any significant visibility of land cover clearance in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use significantly reduces sensitivity in comparison to the surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to onshore cable routeing is considered to be **low**.	**Low**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore wind farms) and Anaerobic digestion	The flat, uniform landform, relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage and natural designations reduce sensitivity to industrial-type development. The plateau location of the airfield means that there is unlikely to be any significant visibility of land cover clearance in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use significantly reduces sensitivity in comparison to the surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to industrial-type development is considered to be **low**.	**Low**

Sculthorpe

plants (typical size range 2.5 – 8 ha)		
Reservoirs (typical size range 2 – 5ha)	The relatively large landscape scale, relatively low landscape value, absence of naturalistic landcover, cultural heritage and natural designations reduce sensitivity to reservoir development. The plateau location of the airfield means that there is unlikely to be any significant visibility of reservoir earthworks in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use significantly reduces sensitivity in comparison to the surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to reservoir development is considered to be **low**.	**Low**

West Raynham

West Raynham



West Raynham

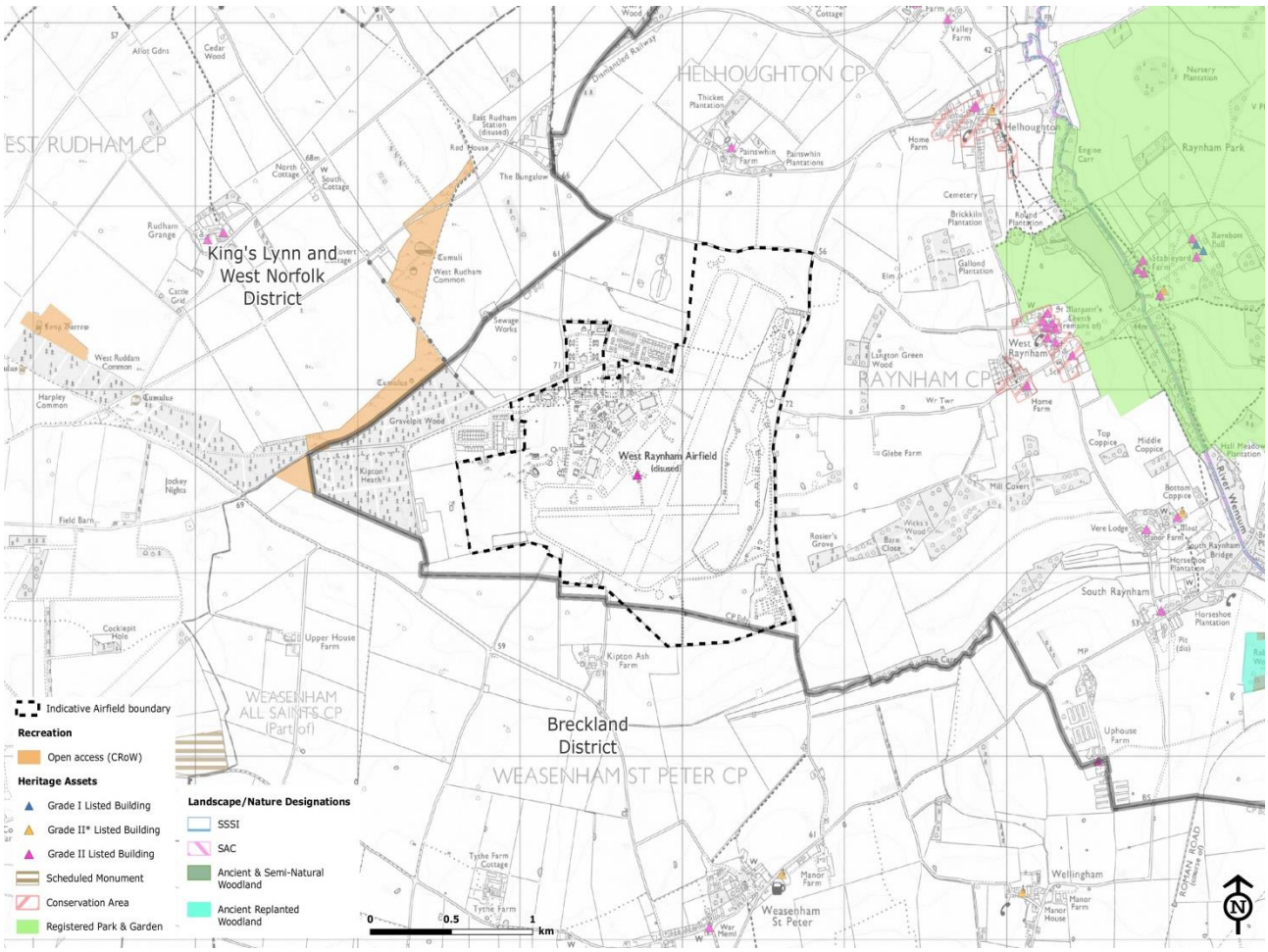
Baseline Landscape

Introduction to the Airfield

RAF West Raynham was built between 1938 and 1939, operating as a base initially for heavy bombers and later for fighter aircraft. Over 3000 staff were accommodated here by 1943. The base continued to operate in the post-war period, initially as an establishment involved in the development of new aircraft and tactics, and later as a base for surface to air missiles (which were sited on the eastern side of the site). RAf Raynham was shut down in 1994 but initially, although allowed to fall into disrepair, retained as a strategic reserve site. In 2004 it was fully decommissioned, then sold for development in 2006. 170 homes on the site were refurbished and sold, located in two clusters now known as the Orchard and Kipton Wood, and West Raynham Business Park was established, utilising four large former hangars and various former airfield technical buildings. In 2015 one of the largest solar farms in the country, covering over 90 hectares, became operational, and in 2018 plans were approved for further housing development.

The airfield is located on a plateau of higher ground rising up to the west of the River Wensum, on the western side of the Rolling Open Farmland Landscape Type. The landform also slopes gradually downhill northwards, towards the River Tatt and a smaller tributary, but remains an elevated, gently undulating plateau westwards for around 4km before becoming more complex and steeply undulating beyond the Massinghams. To the south the land falls away to a short tributary of the Wensum, but the plateau continues beyond. The surrounding area is characterised by large-scale arable farmland, with relatively prominent woodlands both on valley sides to the east and on high ground to the north, west and south.

There are only minor roads in the immediate vicinity of the airfield, and the nearest villages are West Raynham to the east and Weasenham St Peter to the south, both a little over 1km from the site boundary. The airfield lies outside any landscape designations, with the closest such designation being the Norfolk Coast AONB which is over 14km to the north of the site.



West Raynham

Key Characteristics of the Airfield[27]

- The airfield is centred on an area of high ground that falls away towards its edges, although forming part of a broader plateau.
- Grassland remains around the outer southern, eastern and western edges of the site, but the runway area and land up to the northern boundaries is occupied by a solar farm.
- Former staff accommodation has in part been sold off as private dwellings, and the former airfield technical area is now a business park, utilising existing buildings including four large hangars. Open sided structures also remain on the eastern fringe of the site, on grassland currently in grazing use.
- Houses on the former airbase, and other buildings either in commercial use or awaiting renovation/demolition, are for the most part well screened by mature tree cover in their immediate surroundings, so there is little perception of the extent of built development from beyond the site perimeter.
- Tree cover around the built development on the western side of the site, and in the wider landscape, significantly limits views into the site other than from the some of the adjacent minor roads, from which the solar farm and taller structures, including the hangars, are partially visible.

Valued features and qualities of the Airfield

- The site's open, expansive character is in keeping with the surrounding farmed landscape. The mature trees that contain much existing built development, including strong boundary hedgerows on the road approaching the site entrance, perform a valued function.
- Although the solar farm has a significant impact on character within the site, tree cover within the wider landscape plays a valuable role in limiting views and, where they are available, providing a containing backdrop which limits its influence on the remote, rural character and tranquillity of the area.
- The airfield control tower, an unusual design from the Second World War period, is a Listed building in the process of being converted to a residential dwelling. The wider assemblage of airfield buildings are also have heritage merit.

[27] Detailed information about landscape character and valued features of the wider ROF LCT is set out in the North Norfolk Landscape Character Assessment (2018)

West Raynham

Landscape Sensitivity Evaluation

Criteria Appraisal

The following table illustrates the appraisal of West Raynham Airfield against the sensitivity criteria which have been predetermined for the development types.

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Susceptibility Criteria										
Topography & skylines	The relatively flat landform across the majority of the site generally reduces sensitivity to most types of renewable development. Skylines are typically undeveloped and so have a degree of sensitivity, but are not particularly distinctive, being formed of distant or more local woodlands and arable fields, and there are no particularly prominent skyline heritage features (e.g. churches) in the vicinity. The upper parts of two wind farms in King's Lynn and West Norfolk District, located to the north and west of Syderstone between 7km and 10km from the nearest edge of the site, are visible above background trees, but are not sufficiently dominant to reduce sensitivity to wind development on the site. On balance, the nature of topography and skylines have a neutral impact on wind turbines, and reduce sensitivity to all other development types, which would typically appear against a backdrop of woodland rather than have skyline impact.	–	–	–	↓	↓	↓	↓	↓	↓
Landcover	Built development, solar panels and grassland typify most of the site, reducing sensitivity to all development types.	↓	↓	↓	↓	↓	↓	↓	↓	↓

West Raynham

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Sense of openness/ enclosure	The site's open character increases sensitivity to wind turbines, which will be widely visible against the skyline, but lower level development, whilst visible from some locations near the site, will typically be screened by tree cover within the wider surrounds.	↑	↑	↑	–	–	–	–	–	–
Scale (landform and component features), landscape pattern & complexity	The airfield is a large-scale but irregular landscape, lacking significant internal boundary features, and within the solar farm forming a large mass within it. This reduces susceptibility to all development types, as new development would not detract from any sensitive existing pattern.	↓	↓	↓	↓	×	↓	↓	↓	↓
Sense of tranquillity/ remoteness/ rurality & level of human influence	The site lies within a relatively remote, rural location, but the solar farm, Business Park and housing areas create local intrusion, offsetting any increased sensitivity in terms of rurality and tranquillity for the lower-level development types that would not have a significant impact beyond the site area. However the extent of tree cover in the local and wider landscape mean that existing development has only a limited impact on the character of the surrounding rural landscape, so wind turbine development, which would have greater impact on the surrounding area, increases sensitivity.	↑	↑	↑	–	–	–	–	–	–
Time depth / historical continuity	The site is identified by the Norfolk HLC as a military airfield (20th Century), which will generally have a lower susceptibility to all forms of development, due to the limited time depth and historical continuity.	↓	↓	↓	↓	↓	↓	↓	↓	↓

West Raynham

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
Value Criteria										
Presence of landscape designations and extent to which their special qualities could be affected	The airfield is not within or in close proximity to any landscape designations, with the nearest such designation being the Norfolk Coast AONB, which is over 14km to the north of the site. Given this separation, any visibility of tall turbines will be minimal and sensitivity to the lower-lying developments will be reduced.	–	↓	↓	↓	↓	↓	↓	↓	↓
Other indicators of value	<u>High scenic quality:</u> The landscape within the airfield is of a relatively low scenic quality due to the combination of flat landform, absence of distinctive natural features and presence of built form. <u>Representativeness:</u> The site layout and many of the buildings that form part of it are recognised as being of heritage interest as a good example of an 'expansion period' airfield from the 1930's. The absence of any formal designation to reflect this, and the extent to which the character of the runway area has been changed by the solar farm development are considerations in the assessment of sensitivity of this particular characteristic. <u>Rarity:</u> The majority of the airfield is now a solar farm and World War 2 airfields are not rare. <u>Intactness:</u> The landscape is not particularly intact as it has been regularly modified through time, both as part of the construction of the airfield from former farmland, and subsequent use as a solar farm and business park. This reduces sensitivity to further change.	↓ – ↓ ↓	↓ – ↓ ↓	↓ – ↓ ↓	↓ – ↓ ↓	↓ – ↓ ↓	↓ – ↓ ↓	↓ – ↓ ↓	↓ – ↓ ↓	↓ – ↓ ↓

West Raynham

KEY	Attributes generally increase sensitivity to the development type	Attributes generally decrease sensitivity to the development type	Attributes do not strongly influence sensitivity in either direction	Criterion/ development type not applicable

Sensitivity Criteria	Characteristics of the LCT	Indicators of higher/lower susceptibility and value for each development type								
		Large scale Wind Turbines	Medium scale wind turbines	Small scale wind turbines	Field scale solar PV	Onshore cable routes	Cable relay stations & sub-stations	Commercial battery storage schemes	Anaerobic digestion plants	Reservoirs
	<u>Nature conservation & cultural heritage interests:</u> There is one listed building on the site, the former control tower. Its setting is already affected by the solar farm, but taller developments would have a greater impact, given the importance of its elevation to its historic role. To the east, Raynham Park is a substantial Registered Park and Garden surrounded a listed Hall, the nearest edge of which is a little over 1km from the airfield boundary. Mature tree cover containing the site is likely to preclude any significant impact on its setting from lower-level development, but sensitivity to larger turbines would be higher as they would form a backdrop above the tree line in sweeping views westwards from the higher, eastern side of the parkland (bounded by the A1065). There are no nature conservation designations within the site. <u>Recreational value:</u> No Public Rights of Way are present within the airfield and there is no public access, reducing sensitivity in relation to this criterion. <u>Literary / artistic associations:</u> No known famous literary/artistic associations.	↑ ↓ ↓ –	↑ ↓ ↓ –	↑ ↓ ↓ –	– ↓ ↓ –	– ↓ ↓ –	– ↓ ↓ –	– ↓ ↓ –	– ↓ ↓ –	– ↓ ↓ –

West Raynham

Overall sensitivity to different development types

The following table provides an overall sensitivity rating, and justification for that rating, in relation to the relevant development types, based on the airfield sensitivity evaluation table above. It should be emphasised that the overall rating represents the typical sensitivity across the entire airfield site. Notable areas where sensitivity is higher or lower than typical are outlined within the table.

Development Type	Reason for judgement	Overall Sensitivity
Large scale wind turbines, (up to 80m hub height)	The relatively flat landform, large landscape scale, relatively low landscape value and absence of on-site public access, cultural heritage and natural designations generally reduce sensitivity to large scale wind turbines, but the rural character and tranquillity of the surrounding area raise sensitivity. The airfield's openness means that large scale wind turbines would be a dominant modern feature on the skyline in this location. Overall, typical sensitivity to this scale of turbine is considered to be **moderate-high**.	**Moderate-High**
Medium scale wind turbines, (up to 60m hub height)	The relatively flat landform, large landscape scale, relatively low landscape value and absence of on-site public access, cultural heritage and natural designations generally reduce sensitivity to medium scale wind turbines, but the rural character and tranquillity of the surrounding area raise sensitivity. The airfield's openness means that medium scale wind turbines would be a distinctive modern feature on the skyline in this location, although tree cover within the wider landscape is likely reduce their impact in comparison to larger turbines. Overall, typical sensitivity to this scale of turbine is considered to be **moderate**.	**Moderate**
Small scale wind turbines, (up to 30m hub height)	The relatively flat landform, large landscape scale, relatively low landscape value and absence of on-site public access, cultural heritage and natural designations generally reduce sensitivity to small scale wind turbines. The rural character and tranquillity of the surrounding area raise sensitivity, but although small scale wind turbines would be an intrusive modern feature the extent of their visibility would be limited by terrain and tree cover in the wider landscape. Overall, typical sensitivity to this scale of turbine is considered to be **low-moderate**.	**Low-moderate**
Field-scale solar PV development (above 5MW capacity or 15 hectares site area and above)	There is already a large solar farm on this site, and the relatively flat landform, large landscape scale, relatively low landscape value, absence of naturalistic landcover, public access, cultural heritage and natural designations reduce sensitivity to further field-scale solar PV development. The well-treed wider setting of the airfield means that there is unlikely to be any significant visibility of field scale solar PV development in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use and subsequent solar farm development significantly reduces sensitivity in comparison to the surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to field-scale solar PV development is considered to be **low**.	**Low**
Onshore cable routes (for offshore wind farms)	The relatively flat landform, large landscape scale, relatively low landscape value, absence of naturalistic landcover, public access, cultural heritage and natural designations reduce sensitivity to cable routeing. The well-treed wider setting of the airfield means that there is unlikely to be any significant visibility of on-site clearance works in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use and subsequent solar farm development significantly reduces sensitivity in comparison to the surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to cable-routeing is considered to be **low**.	**Low**
Commercial battery storage schemes , Cable relay stations and sub-stations (for offshore	The relatively flat landform, large landscape scale, relatively low landscape value, absence of naturalistic landcover, public access, cultural heritage and natural designations reduce sensitivity to industrial-type renewable energy development. The well-treed wider setting of the airfield means that there is unlikely to be any significant visibility of development in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use and subsequent solar farm development significantly reduces sensitivity in comparison to the	**Low**

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wind farms) and Anaerobic digestion plants (typical size range 2.5 – 8 ha)	surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to industrial-type renewable energy development is considered to be **low**.	
Reservoirs (typical size range 2 – 5ha)	The relatively flat landform and open character of the site would make it difficult to naturally integrate or screen reservoir embankments within the landscape. However the large landscape scale, relatively low landscape value, absence of naturalistic landcover, public access, cultural heritage and natural designations reduce sensitivity to further field-scale solar PV development. The well-treed wider setting of the airfield means that there is unlikely to be any significant visibility of reservoir development in the wider landscape, so the extent to which the existing landscape has already been altered by airfield use and subsequent solar farm development significantly reduces sensitivity in comparison to the surround Rolling Open Farmlands Landscape Type. Typical sensitivity across the airfield to reservoir development is considered to be **low-moderate**.	**Low-moderate**

Appendix 3 - Guidance for minimising harm to the landscape

Appendix 3 - Guidance for minimising harm to the landscape

The introduction of the types of development listed in Section 3 into North Norfolk could adversely affect the landscape, as reflected in the sensitivity comments and ratings summarised in Section 5. The guidance below describes siting and design measures which may in some circumstances be able to reduce the typical harm that would result from the assessed development types.

Wind energy development

The following guidelines should be considered when designing and siting wind energy development:

- Select sites in simple, regular landscapes with extensive areas of consistent ground cover over landscapes with more complex land cover patterns, smaller field sizes and landscapes with frequent human scale features. Avoid loss of areas of greater land cover interest, such as rarer grasslands and extensive areas of deciduous woodland.
- Select sites where the surrounding topography and landcover will assist in minimising the extent of visual impact, e.g. undulating landform with groups of trees will help to reduce wide ranging visual effects.
- Seek to avoid areas valued for their remoteness, and perceived 'untamed' naturalness e.g. the undeveloped coast and marsh.
- Avoid siting turbines where they would adversely affect the remoteness, tranquillity and wildness (and other special qualities) of the North Norfolk AONB, the natural beauty of the Heritage Coast or the undeveloped character of the Undeveloped Coast policy area. Turbines outside designated areas may also affect reason for designation and this should be carefully assessed.
- Consider views from local viewpoints, settlements (particularly Conservation Areas) and popular routes (e.g. walking, cycling). If development will be visible ensure it does not dominate and detract from the experience of visiting these locations/ travelling along these routes.
- Seek to avoid areas where ground level disturbance affects landscapes that are difficult to restore (e.g. marshland).
- Consider locations in association with business parks and reclaimed, industrial and man-made landscapes where other landscape sensitivities are not compromised.
- Consider the landscape effects of transmission infrastructure when siting development, aiming for sites that will minimise the need for above ground transmission infrastructure. Undergrounding cables may mitigate effects in sensitive locations.
- Use existing vegetation to screen ground-level features of wind energy developments (such as fencing, tracks and transformers).
- Ensure turbines do not detract from the understanding and appreciation of historic landmark features.
- Consider siting turbines so they are perceived as part of other built development / in association with a building group where effects on amenity allow.
- When developing multiple turbines, ensure that turbines read as a coherent group in all the main views – aim for a composition that is visually balanced, simple and consistent in image as it is viewed from various directions. Avoid 'stacking' of turbines (where turbines are seen one behind another) or the 'windscreen wiper' effect (where just the blades of turbines are

seen above the horizon) as far as possible, and particularly as seen from sensitive/ popular viewpoints.

- In urban fringe or industrial contexts, developments should respond to the scale of the built form and sit comfortably alongside buildings or structures.
- Ensure that the proportion of rotor diameter to tower height is balanced - short blades on a tall tower or long blades on a short tower may look unbalanced. Aim for a ratio of approximately 1:1 for tower height: blade diameter.
- Simple, pale grey coloured turbines will generally be least intrusive (to reduce contrast with the sky).
- Minimise the width and length of new tracks introduced into the landscape, using existing routes wherever possible.
- Ancillary features should match the local vernacular where they are visible (e.g. using locally occurring materials on substations, control buildings, and transformer cabins if not housed within the turbines).
- If lighting is required on turbines for aviation purposes, use infra-red lighting to minimise visual effects at night, particularly in darker parts of the District.
- Consider providing enhanced management of landscape features, habitats and historic assets as part of any development, including contributing to the Norfolk Biodiversity Action Plan and guidelines in the North Norfolk Landscape Character Assessment.
- Consider seascape impacts of any onshore turbine developments, and conversely consider onshore impacts of any offshore turbines.
- Assess potential cumulative effects with existing wind energy developments (including between offshore and onshore turbines), and ensure that wind turbines do not become a dominant feature of the landscape.

Field scale solar PV

The following guidelines should be considered when designing and siting field-scale solar PV development:

- Locate development on lower slopes/within folds in gently undulating lowland landscapes or on flat plateau sites rather than on slopes, especially higher slopes and skylines.
- Site development in landscapes with a sense of enclosure (e.g. provided by woodland or high hedges) rather than in open and unenclosed landscapes (unless an elevated plateau lacking intervisibility with surrounding landscapes).
- Avoid areas of greater time depth – e.g. historic landscape types such as commons, co-axial enclosures or parklands, and rural landscapes in the vicinity of vernacular villages or cultural heritage assets.
- Site away from areas valued for their remoteness, areas free from human influence and perceived 'untamed' naturalness e.g. undeveloped coast and marsh.
- Avoid sites where solar farms would adversely affect the remoteness, tranquillity and wildness (and other special qualities) of the North Norfolk AONB, the natural beauty of the Heritage Coast or the undeveloped character of the Undeveloped Coast policy area.
- Consider views from local viewpoints, settlements (particularly Conservation Areas) and popular routes (e.g. walking, cycling). If development will be visible ensure it does not dominate and detract from the experience of visiting these locations/ travelling along these routes.
- Ensure the area of development is in scale with the landscape in which it lies – it is likely that areas with smaller scale fields will accommodate smaller developments. Minimise the number of adjacent fields that are developed to preserve legibility of field patterns.

- Retain and protect trees and hedgerows, to preserve existing field pattern, and plant additional locally occurring species to enhance screening that is in character with the landscape. Avoid loss of areas of greater land cover interest, such as rarer grasslands and extensive areas of deciduous woodland.
- Minimise height of panels so that they will be as unobtrusive as possible in the landscape.
- Maintain land uses on the site that fit with the character of the area and manage vegetation under the solar panels to avoid the site becoming overgrown e.g. by grazing.
- Minimise the use of security lighting – aim to use passive infra-red (PIR) technology where possible and ensure that any visible lighting is designed and installed in a manner which minimises glare or light spill into the surrounding landscape.
- Ensure that associated infrastructure (inverter stations, cctv and lighting poles) are of appropriate colour finish and siting so that they are not intrusive elements of such as development.
- Security fencing should be appropriate for the location, e.g, timber post and wire fencing is more appropriate in a rural location than a steel palisade option.
- Consider providing enhanced management of landscape features, habitats and historic assets as part of any development, including contributing to local Priority Habitats and guidelines in the North Norfolk Landscape Character Assessment. This could include the provision of both wildflower meadows and rough, tussocky grassland between and/or beneath solar panels and in field margins, to provide wildlife nesting and foraging areas, and the planting of cover crops including wild bird seed and nectar mixes.
- Incorporate Green Infrastructure into any proposal to ensure no overall loss of ecosystem services.
- Assess potential cumulative effects with other solar farms and ensure that solar farms do not become a dominant feature of the landscape - maintain a diversity of landcover types in any one area.

Onshore Cable Routes

The following guidelines should be considered when routeing onshore cables:

- Aim to avoid landscape features such as mature trees and woodland (particularly ancient woodland), or other landscape or habitat types that are not easily restored.
- Use horizontal directional drilling (HDD) in particularly sensitive locations to conserve above ground features.
- Aim to avoid routes that would adversely affect the remoteness, tranquillity and wildness (and other special qualities) of the North Norfolk AONB, the natural beauty of the Heritage Coast or the undeveloped character of the Undeveloped Coast policy area.
- Consider views from local viewpoints, settlements (particularly Conservation Areas) and popular routes (e.g. walking, cycling). If development will be visible ensure it does not dominate and detract from the experience of visiting these locations/ travelling along these routes.
- Minimise the width of the corridor required to be excavated.
- Ensure ground re-instatement/restoration can be achieved - avoid locating in naturalistic/ undeveloped landscapes where possible.
- Minimise disruption to field boundaries as far as possible – routeing through areas of historic small scale fields will result in a greater impact than routeing through large scale arable fields.
- Avoid steep slopes where possible and aim to route through less visible areas.

- Areas of greater historic time depth (e.g. heaths, commons, parklands, undisturbed land) will be more vulnerable to cable laying than areas of lesser time depth and more recent disturbance.

Industrial type features and built form (varied scale)

The following guidelines should be considered when designing and siting industrial-type features and built form, including commercial battery storage, anaerobic digestion plants, cable relay stations and sub-stations:

- Aim to locate in proximity to existing built form (e.g. existing electricity substation infrastructure) and/or in areas with visual screening, and that are not overlooked.
- Ensure the scale of development is appropriate for its context.
- Protect the hedgerow network, trees, woodlands, and semi-natural habitats and aim to extend these as part of any landscape scheme associated with development.
- Enhance existing screening through the use of locally occurring species planting which integrates with features such as woodland and hedgerows within the wider landscape, to reinforce local character and biodiversity.
- Protect undeveloped skylines and backdrops from encroachment – set any new built development back from scarp edges or valley crests and avoid highly visible slopes.
- Ensure prominent landmark features (particularly historic features such as church towers) remain prominent in the landscape and new development does not detract from these features.
- Avoid areas with greater time depth such as pre-18th century fields, and common land.
- Avoid locating in very open and naturalistic/ undeveloped landscapes, or historic small scale landscapes. Avoid loss of areas of greater land cover interest, such as rarer grasslands and extensive areas of deciduous woodland.
- Avoid development which adversely affects the special qualities of the North Norfolk AONB, the natural beauty of the Heritage Coast or the undeveloped character of the Undeveloped Coast policy area. Schemes should be limited to small scale AD plants that can be easily contained within an existing farm yard setting and operates without the need to import material from off the farm in question.
- Consider views from local viewpoints, settlements (particularly Conservation Areas) and popular routes (e.g. walking, cycling). If development will be visible ensure it does not dominate and detract from the experience of visiting these locations/ travelling along these routes.
- Avoid lighting structures as far as possible and limit hours of lighting where possible to reduce their impact at night.
- Consider use of curved and green (living) roofs to reduce the visibility of buildings and structures.
- Ensure open spaces around the buildings reflect the underlying landscape character by using locally occurring species and linking to the wider landscape.
- Minimise the use of security lighting – aim to use passive infra-red (PIR) technology where possible and ensure that any visible lighting is designed and installed in a manner which minimises glare or light spill into the surrounding landscape.
- Consider providing enhanced management of landscape features, habitats and historic assets as part of any development, including contributing to Norfolk Biodiversity Action Plan and guidelines in the North Norfolk Landscape Character Assessment.
- Incorporate Green Infrastructure into any new development to ensure no overall loss of ecosystem services.

Reservoirs

The following guidelines should be considered when designing and siting reservoirs

- Avoid siting large scale reservoirs in historic small scale landscapes (including in areas of pre-18th century fields and commons);
- Avoid siting in semi-natural habitats;
- Avoid development which adversely affects the special qualities of the North Norfolk AONB, the natural beauty of the Heritage Coast or the undeveloped character of the Undeveloped Coast policy area.
- Set any development back from scarp edges or valley crests and avoid highly visible slopes.
- Consider views from local viewpoints, settlements (particularly Conservation Areas) and popular routes (e.g. walking, cycling). If development will be visible ensure it does not dominate and detract from the experience of visiting these locations/ travelling along these routes.
- Ensure development does not adversely affect the special interest of Registered Parks and Gardens or other designated cultural heritage features in the landscape.
- Avoid an overly-engineered appearance in the design of the embankments, by:
    - designing outward facing reservoir embankments to be as shallow a gradient as possible – even if this requires a greater land take or more material;
    - softening and rounding at the top and toe of the embankment will help in assimilation into the landscape;
    - avoiding long straight lines along reservoir edges – for example by breaking them up with undulations and vegetation;
    - seeking to tie the shape of the reservoir into the landform; and
    - creating undulating or uneven embankments rather than continuous smooth slopes, tying into local changes in topography.
- Utilise locally appropriate tree and hedgerow planting to integrate the development into the adjacent landscape structure, rather than simply as a screening boundary.
- Use tree and hedgerow planting to screen immediate views of security fencing and ancillary development.
- Avoid placing fencing or other development along the embankment top where it will be seen on the skyline.