

Tunstead Neighbourhood Plan 2025-2040

Preliminary Screening Strategic Environmental Assessment and Habitats Regulation Assessment 2025



Strategic Environmental Assessment and Habitat Regulations Assessment Screening Report 2025

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Introduction

1. Tunstead Parish Council is preparing a Neighbourhood Plan for its area known as TNP throughout this document. The planning period will be 2025-2040 and the designated area (**See Figure 1**) is located within North Norfolk District Council. [Collective Community Planning](#) has been appointed by the parish councils to consider whether there is a need for a Strategic Environmental Assessment (SEA) to be undertaken on TNP. This is required under European Directive 2001/42/EC (the SEA Directive), transposed into UK law through the SEA Regulations¹.
2. SEA may be required for a Neighbourhood Plan if it is likely to have significant environmental effects. A Sustainability Appraisal (SA) is like an SEA but includes assessment of the likely significant effects of a plan or programme on economic and social factors, as well as environmental factors. Planning Practice Guidance (PPG) clarifies that there is no legal requirement for a Neighbourhood Plan to be subject to a SA, but that SA can be used to demonstrate how the plan will contribute to sustainable development.

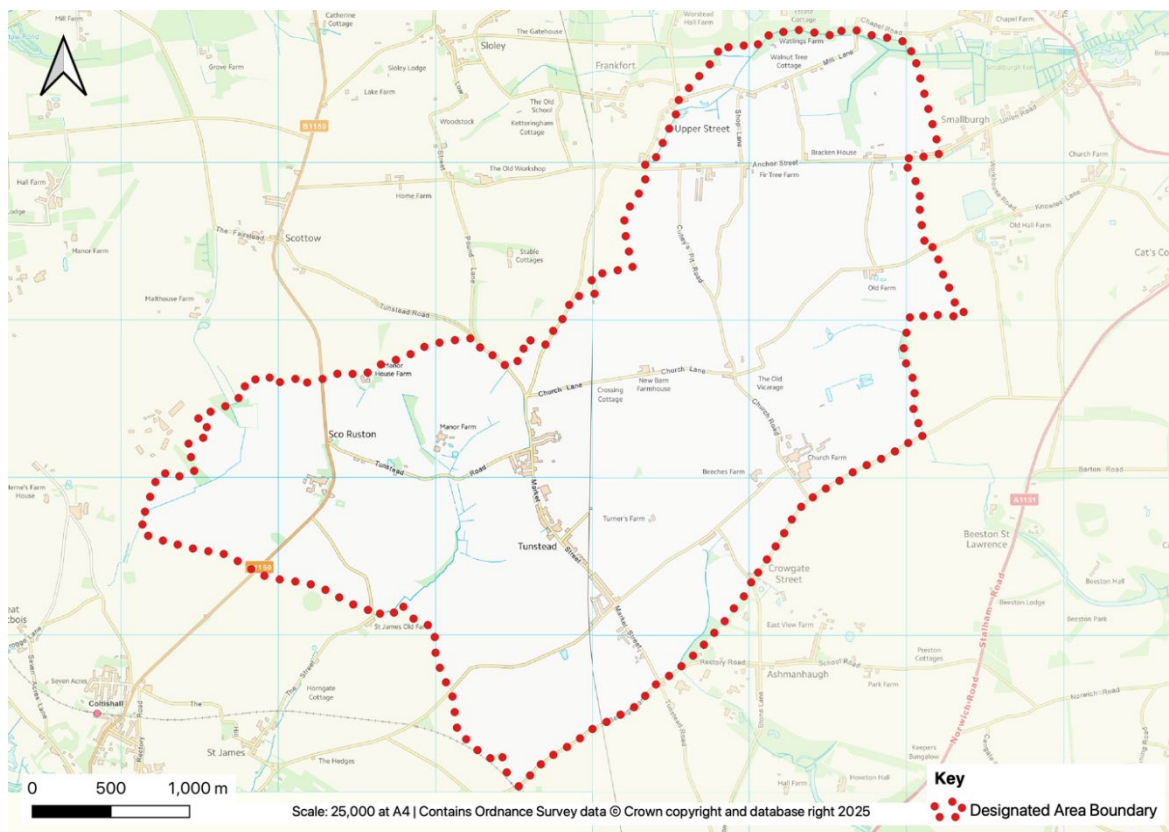


Figure 1: Designated Neighbourhood Area

¹ The Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004/1633), as amended by the Environmental Assessment and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 (SI 2018/1232). It should be noted that the purpose of the amendments to the SEA Regulations is to ensure that the law functions correctly after the UK has left the European Union. No substantive changes are made to the way the SEA regime operates.

SEA Screening

Scope of the Tunstead Neighbourhood Plan

3. A draft (Regulation 14) version of TNP is currently being prepared. It is intended that this is subject to public consultation in late 2025/early 2026. TNP includes a vision for the long-term future of Tunstead, along with aims to support delivery of this vision. The current draft vision is:

Tunstead and Sco Ruston: a thriving rural parish where small-scale growth meets local need, supports community life, and protects our countryside character.

4. The draft plan currently includes five objectives to deliver this vision:

Objective A: Housing and Growth

Ensure small scale growth within the parish meets local need and supports community life.

- Deliver a housing mix of predominantly smaller homes (1-3 bedrooms), in line with the Housing Needs Assessment.
- Support growth at a scale appropriate to Tunstead's character, in conformity with the Local Plan policy for Small Growth Villages.
- Ensure new development makes proportionate contributions to local infrastructure and services.

Objective B: High Quality Design

Ensure all new housing development is of high-quality design, reflective of Tunstead's rural village character.

- Require proposals to follow the Tunstead and Sco Ruston Design Codes and NNDC Design Guide.
- Encourage nature-friendly features, sustainable construction, and use of traditional local materials.

Objective C: Infrastructure and Flood Management

Address key infrastructure constraints including surface water management, foul water drainage, and digital connectivity.

- Ensure all new development demonstrates adequate foul water and drainage capacity.
- Support improvements to broadband and digital infrastructure.
- Work with partners and landowners to maintain and enhance drainage systems.

Objective D: Community Life and Services

Enhance local service provision and opportunities for leisure and recreation.

- Support delivery of a viable new village hall or community hub.
- Protect and enhance valued community facilities including the school, recreation ground, pub and church.
- Encourage collaboration between facilities to provide a broader range of activities.

Objective E: Green Space and Countryside Access

Protect and enhance local green spaces, countryside access and public rights of way.

- Designate and safeguard the Recreation Ground as a Local Green Space.
- Improve signage, maintenance and connections of public and permissive footpaths.
- Promote new circular walking routes and access into the wider countryside.

5. The plan does not allocate land for development.

Baseline Information

6. This section summarises baseline information for the TNP area, drawing on the Evidence Base which will accompany the Neighbourhood Plan.

Context

7. Tunstead is situated in West Norfolk between the towns Hunstanton and Fakenham. Tunstead is about 8 miles from Hunstanton (15 min drive) and around 12.5 miles from Fakenham (20min drive). The parish has a population of 1,100 and numerous facilities/services to support the local area including but not limited to Bayfield surgery, Tunstead Primary and Nursery School, St Mary's Church, Tunstead House (Assisted Living Residence), allotments, playing field/play park, village hall, post office, Spar village shop, angling fishing club, and the Bus Service (33, 33A and 414).

Biodiversity, Flora, and fauna

8. There are no European statutory designated sites in the neighbourhood area, though there are a number of important European designations within approximately 2km to Tunstead. This includes:

- **The Broads** Special Area of Conservation (SAC)
- **Broadland** Ramsar and Special Protection Area (SPA)
- **Smallburgh Fen** Site of Specific Scientific Interest (SSSI)
- **Broad Fen, Dilham** Site of Specific Scientific Interest (SSSI)

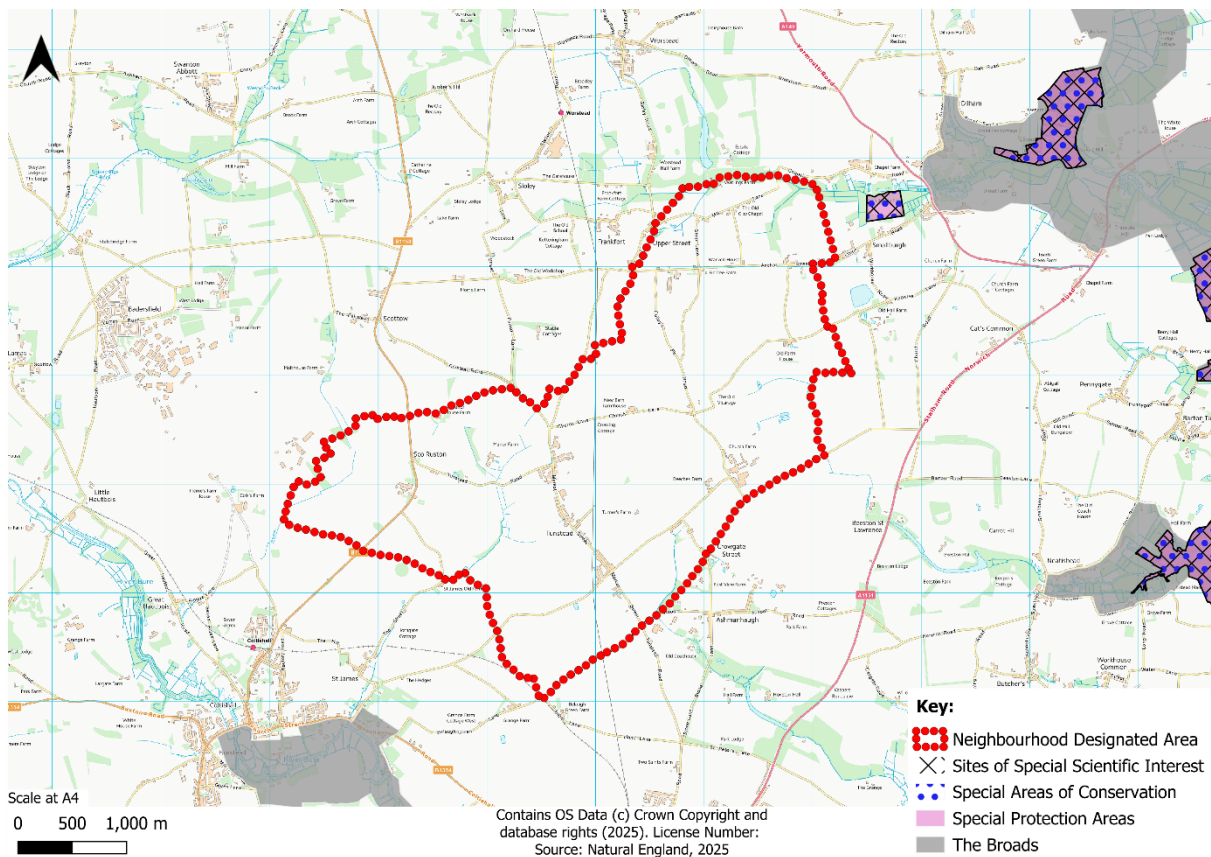


Figure 2- Wildlife Designations

9. **The Broads (SAC)** are a series of flooded medieval peat cuttings. They lie within the floodplains of five principal river systems, known as Broadland. The Broads sits outside of the designated area to the northeast and south. The area includes the river valley systems of the Bure, Yare and Waveney and their major tributaries. The distinctive open landscape comprises a complex and interlinked mosaic of wetland habitats including open water, reedbeds, carr woodland, grazing marsh, tall herb fen, transition mire and fen meadow, forming one of the finest marshland complexes in the UK². The differing types of management of the vegetation for reed, sedge, and marsh hay, coupled with variations in hydrology and substrate, support an extremely diverse range of plant communities. The area is of international importance for a variety of wintering and breeding raptors and waterbirds associated with extensive lowland marshes.

10. **The Broads** contain several examples of naturally nutrient-rich lakes. Although artificial, having been created by peat digging in medieval times, these lakes and the ditches in areas of fen and drained marshlands support relict vegetation of the original Fenland flora, and collectively this site contains one of the richest assemblages of rare and local aquatic species in the UK³.

11. **Broadland (SPA/Ramsar/SSSI/NNR)** is a designated site which is within 2km of the designated area to the north-east. It is a low-lying wetland complex straddling the

² JNCC.2008. Information Sheet on Ramsar Wetlands mentioned Broadland and The Broads. Source: [untitled \(jncc.gov.uk\)](https://www.jncc.gov.uk)

³ Natural England. 2014. EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora Citation for Special Area of Conservation (SAC). Source [the-broads-sac-documents.pdf \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk)

boundaries between east Norfolk and northern Suffolk in eastern England. As stated in the Ramsar overview, it is an area of “*low-lying wetland complex composed of the Bure, Yare, Thurne, and Waveney river systems of the Norfolk Broads. The mosaic of wetland habitats includes open water, reedbeds, carr woodland, grazing marsh, and fen meadow, with an extensive complex of flooded medieval peat diggings. Outstanding assemblages of rare plants and invertebrates occur at the site -- amongst a rich insect fauna are nationally rare dragonflies, spiders, moths, and butterflies, and the area is a stronghold for the butterfly Papilio machaon britannica as well as a number of nationally rare breeding birds, including Botaurus stellaris and Circus aeruginosus. Several species of waterbirds winter there and include internationally important numbers of Bewick’s swan, Cygnus columbianus bewickii. The region is important for recreation, tourism, agriculture, and wildlife, and there is a large conservation education centre*”⁴. For this site Natural England also set out a number of conservation objectives regarding maintaining or restoring the achievement of Wild Birds Directive for the qualifying features listed below⁵:

- A021 Botaurus stellaris; Great bittern (Breeding)
- A037 Cygnus columbianus bewickii; Bewick’s swan (Non-breeding)
- A038 Cygnus cygnus; Whooper swan (Non-breeding)
- A050 Anas penelope; Eurasian wigeon (Non-breeding)
- A051 Anas strepera; Gadwall (Non-breeding)
- A056 Anas clypeata; Northern shoveler (Non-breeding)
- A081 Circus aeruginosus; Eurasian marsh harrier (Breeding)
- A082 Circus cyaneus; Hen harrier (Non-breeding)
- A151 Philomachus pugnax; Ruff (Non-breeding)

12. The 2022 evidence pack also says Broadland Ramsar is designated for the following features:

- Floodplain alder woodland
- Floodplain fen
- Wetland invertebrate and plant assemblage
- Wigeon, Mareca penelope – Wintering

13. **The Smallburgh Fen** site is a SSSI that overlaps with The Broads and Broadland designations. It is within 2km of the designated area to the north-east. It is a notable example of the fens -floodplain and valley fens habitat type⁶. According to Natural England⁷ the site was designated in 1985 for its biological interest and is 7.6ha in size. There are currently 0 pressures on site as of March 2023 and the site is within favourable recovery condition⁸.

⁴ [Broadland | Ramsar Sites Information Service](#)

⁵ [European Site Conservation Objectives for Broadland SPA - UK9009253 \(naturalengland.org.uk\)](#)

⁶ Natural England. 2009. Responding to the Impacts of climate change on the natural environment: The Broads. Source: [Natural England Access to Evidence - Search Results](#)

⁷ The Broads Special Area of Conservation/Broadland Ramsar Evidence Pack. 2022. Source: [Natural England Access to Evidence - Search Results page 1](#)

⁸ Smallburgh Fen SSSI. Source: [SSSI detail \(naturalengland.org.uk\)](#)

14. **The Broad Fen, Dilham** is a SSSI which is within 2km of the designated area to the north-east. According to Natural England⁹ the site was designated in 1983 for its biological interest and is 38.43ha in size. There are currently 2 pressures on site including invasive species from freshwater plants identified in December 2020 and the site is within favourable recovery condition¹⁰.

National and Local Designations

15. There is one County Wildlife Site that falls within the neighbourhood area to the north called Dilham Grange Carr (CWS 1211) shown in **Figure 3**. As well as this there are several County Wildlife Sites adjacent or near to the designated area including Smallburgh Carr, Anchor Wood, Larch & Fleece Plantations, Scottow Pond & Oak Belt, Long Plantation and Land adj. All Saint's Church (**Figure 4**). These wildlife sites are not designated on a statutory basis, though they do receive a degree of protection through the planning process and are often recognised in district local plans. In this context, site protection relies on the commitment of local authorities and public bodies.

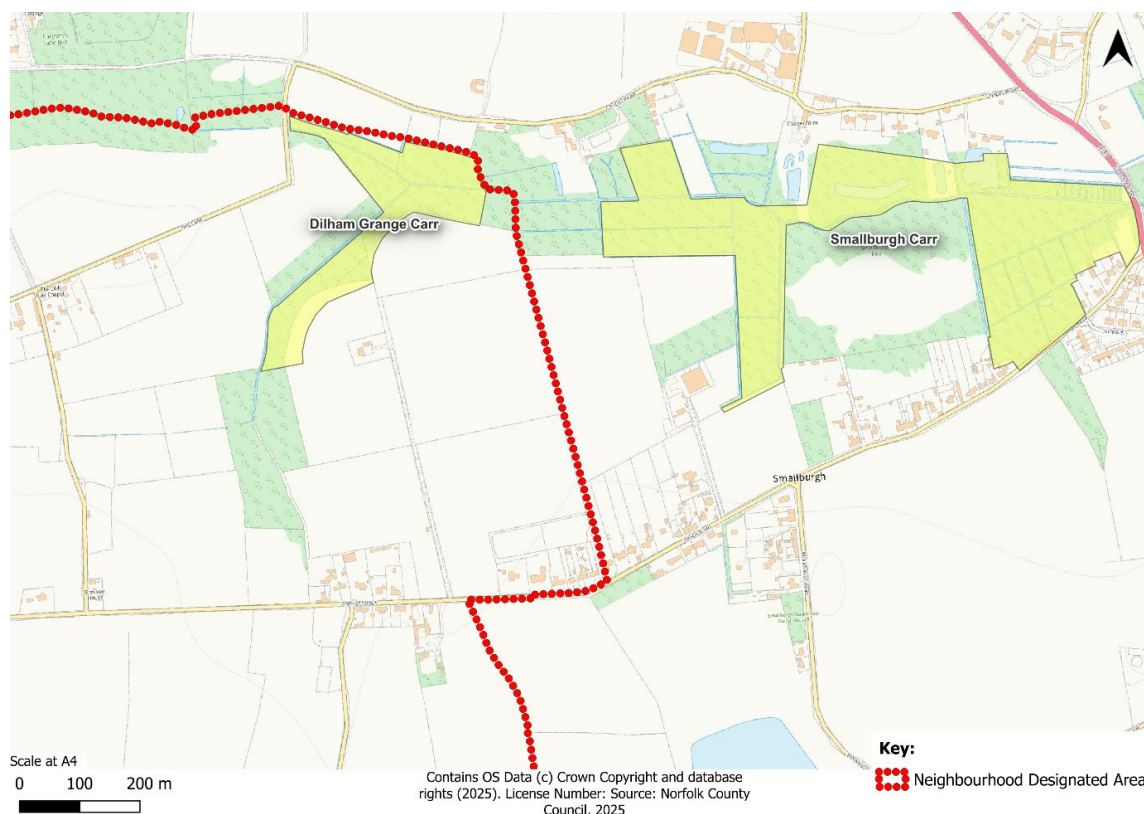


Figure 3-County Wildlife Sites (Source Norfolk County Council, 2025)

⁹ Broad Fen, Dilham SSS. Source: [SSSI detail \(naturalengland.org.uk\)](https://www.naturalengland.org.uk)

¹⁰ Smallburgh Fen SSSI. Source: [SSSI detail \(naturalengland.org.uk\)](https://www.naturalengland.org.uk)

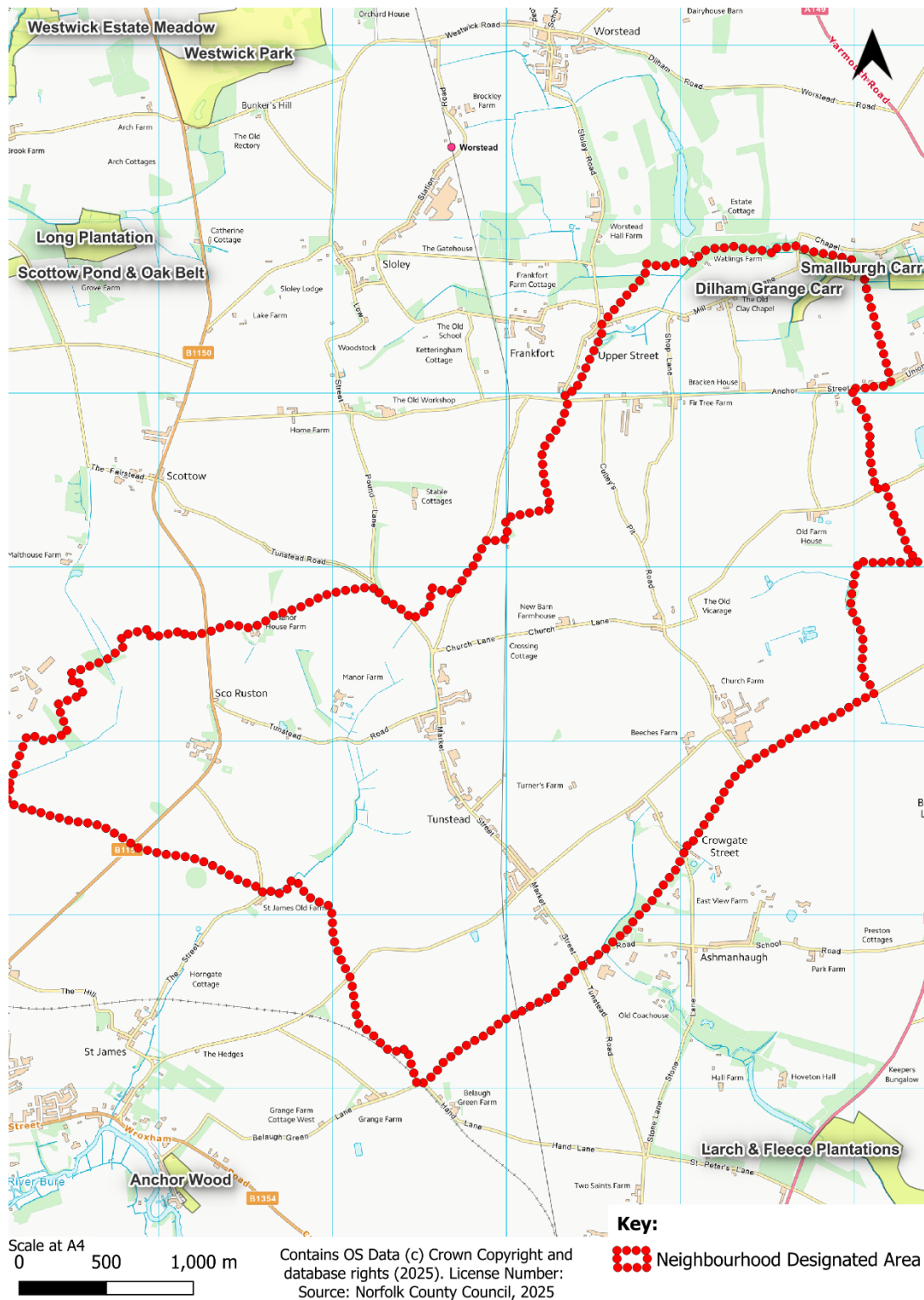


Figure 4- County Wildlife Sites in close proximity to the parish

16. The parish contains priority habitat also known as Habitats of Principle Importance for biodiversity conservation. These are habitats which are most threatened, in greatest decline, or where the UK holds a significant proportion of the world's total population. There are two main types of priority habitat in the parish (see **Figure 5**) deciduous woodland and traditional orchard. Deciduous woodland accounts for

39% of the total priority habitats resource in England¹¹, the largest proportion of any habitat group, and this is the most apparent priority habitat in Tunstead.

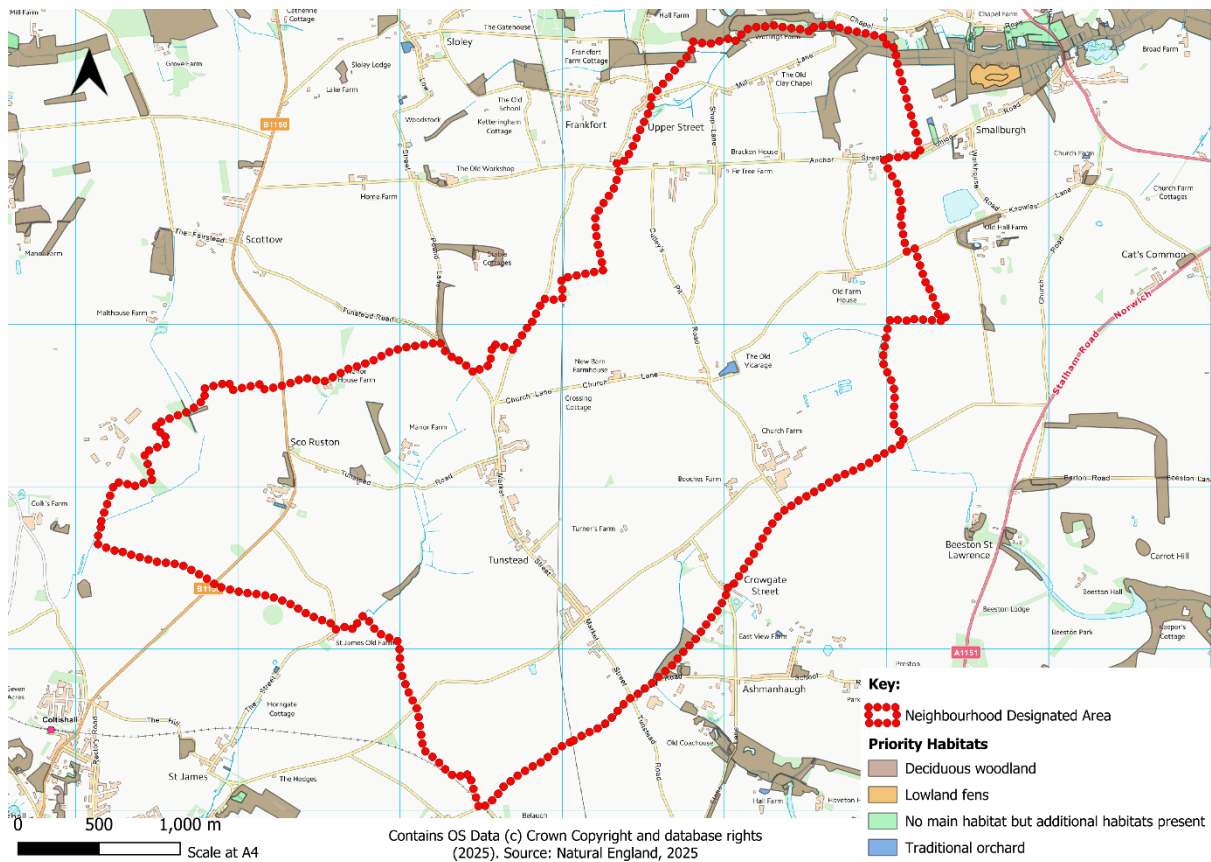


Figure 5- Priority Habitats (Source: Natural England, 2024)

Population

17. The total usual resident population in Tunstead is around 710 (to the nearest 100) according to the Census 2021¹² compared to 744 in 2011¹³, showing a small decrease. This apparent decrease could be because of rounding within the Census data, or it could be that the number of homes within the parish not lived in by villagers (permanent residents) has increased. The parish is small in comparison to the 103,000 people residing in North Norfolk and 56,490,000 in England.

18. According to census data a high proportion of the usual resident population is of working age. As shown in **Figure 6** the age profile of the population has remained fairly static over the last ten years. There has been a slight decline in the 25-64 category and an increase in other age groups.

¹¹https://assets.publishing.service.gov.uk/media/654df579c0e06800101b2d2b/2a_Extent_and_condition_of_priority_habitats.pdf

¹² Census 2021. Population. Source: [Build a custom area profile - Census 2021, ONS](#)

¹³ Census 2011. Nomis Local Area Report for Tunstead. Source: [Local Area Report for areas in England and Wales - Nomis \(nomisweb.co.uk\)](#)

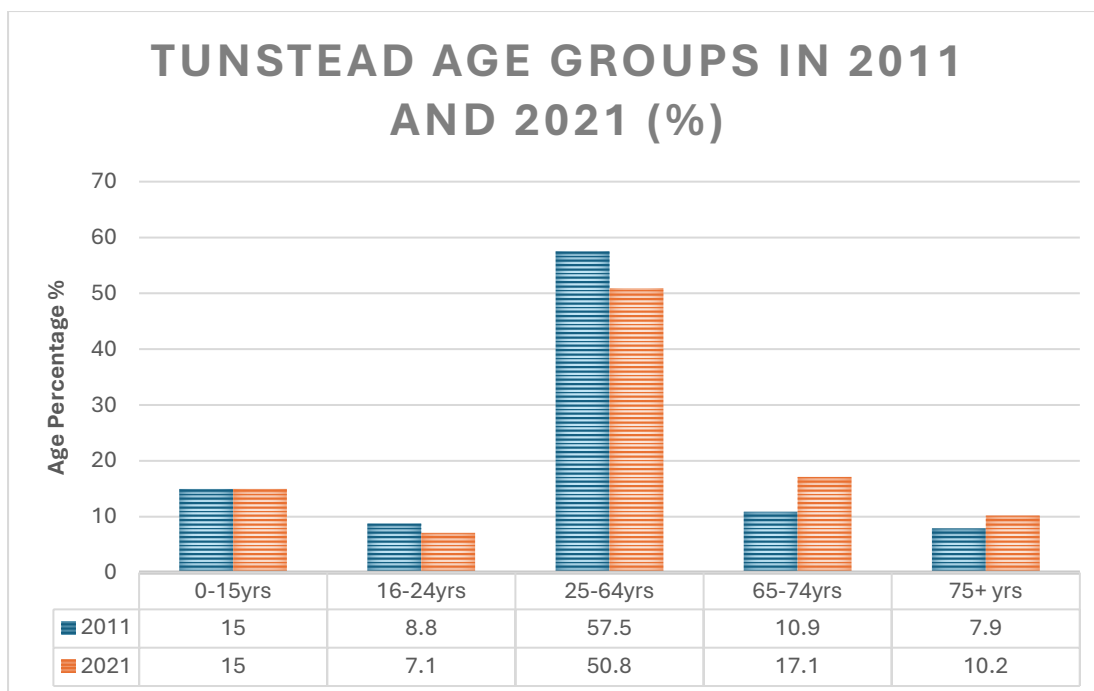


Figure 6- Age Groups in Tunstead 2011 and 2021 (Census)

Human Health

19. Provision of age-related services is likely to become an increasing consideration for the neighbourhood plan area as the proportion of over 65s according to the Census 2021 makes up 27.3% of the NPA.

Soil

20. The parish contains some of the best and most versatile agricultural land in England, as identified by the Agricultural Land Classification Scale. Of the areas not covered by settlement a large proportion is identified as Grade 1 and Grade 2 particularly within the centre and south, soil closer to the north is Grade 3, see **Figure 7**.

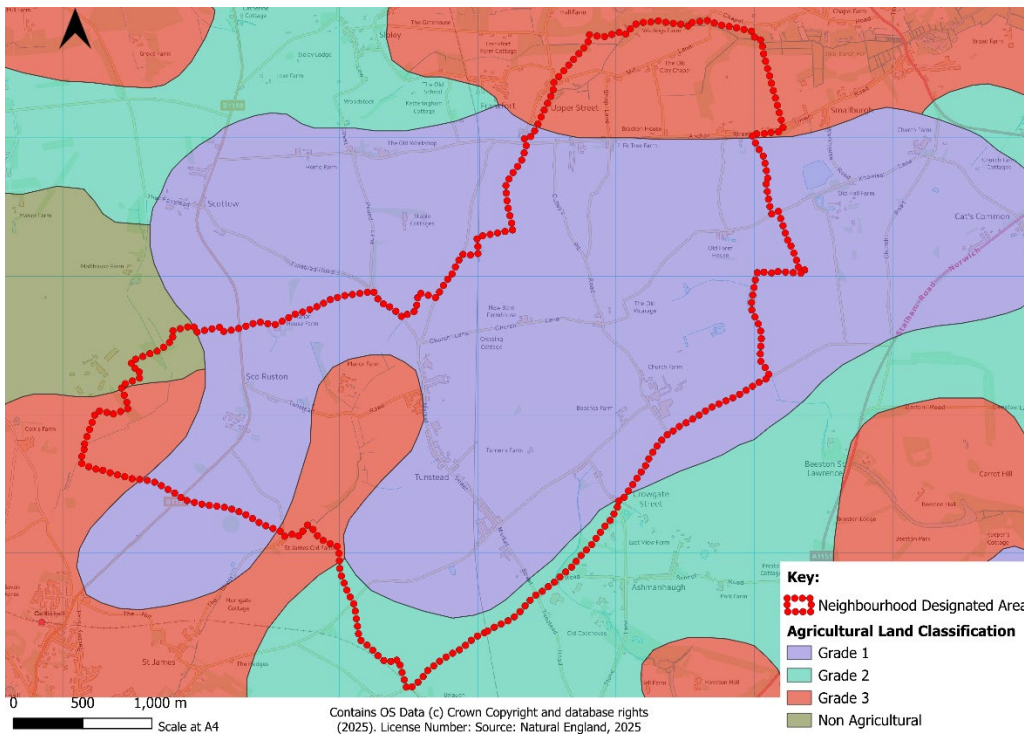


Figure 7-Agricultural Land Classification (Source: Natural England, 2025)

Water

21. According to the Environment Agency the parish falls predominantly within Flood Zone 1, particularly the more built-up parts of the settlement, which means there is a low risk of flooding from rivers or the sea. National policy is to locate development in areas least likely to flood. Based on current mapping, this is unlikely to be a constraint on development in the plan area (**Figure 8**).

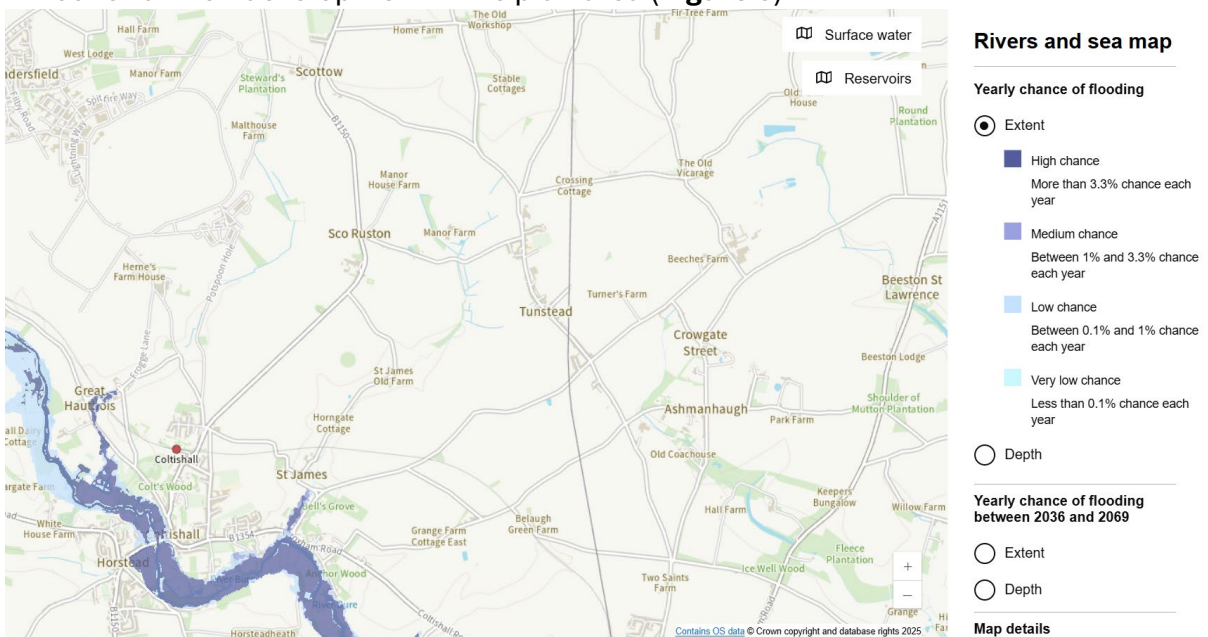


Figure 8-Flood risk from rivers and sea in Tunstead (Source: DEFRA, 2025¹⁴)

¹⁴ [Technical map - Check your long term flood risk - GOV.UK](https://www.gov.uk/technical-map-check-your-long-term-flood-risk)

22. The Environment Agency future flood risk modelling shows that there is a low, medium, and high risk of surface water flooding (ponding) in areas of the parish, including around existing buildings, roads, gardens, open landscape, and waterbodies **Figures 9 to 10** indicates this agricultural land, areas where water sources may be present such as ponds or even ghost ponds, and the highway along Tunstead Road, Mill Lane, Anchor Street and Market Street. Surface water flood risk does extend into a number of properties' driveways and gardens as the map shows: including Turner's Farm, Oak Tree House, Tunstead Primary School, The Lavenders, Weavers Close, Ivy Cottage and Upper Street.

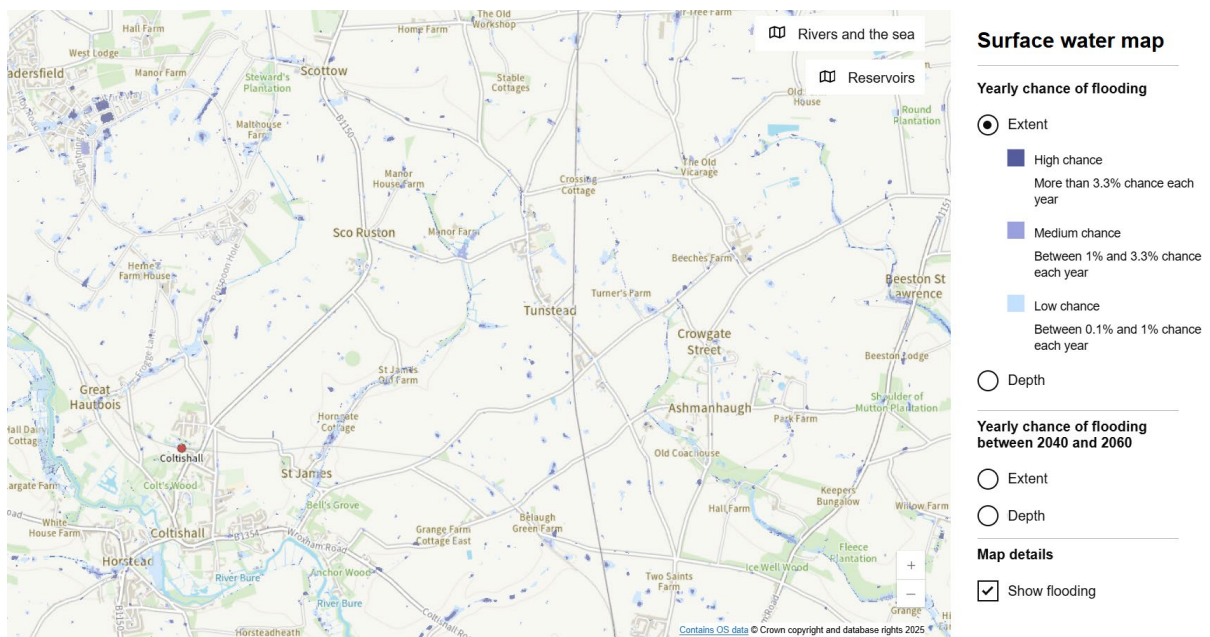


Figure 9- Surface Water Flood Risk (Source: DEFRA, 2025)

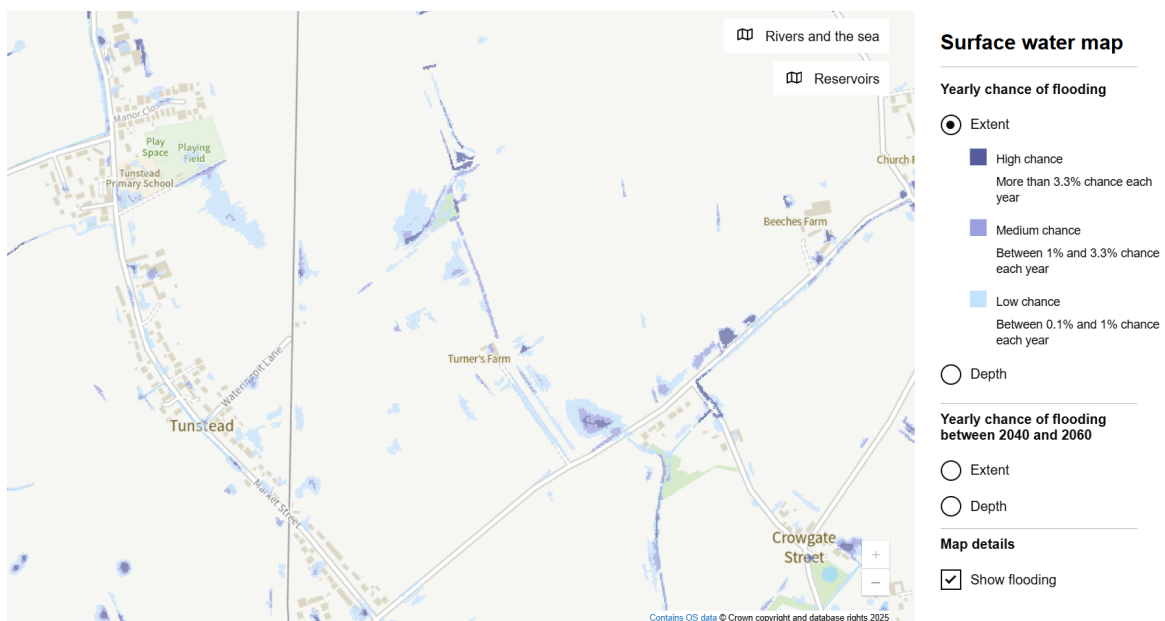


Figure 10-Surface Water Flood Risk within the built-up area of Tunstead (Source: DEFRA, 2025)

23. The North Norfolk Strategic Flood Risk Assessment (2018¹⁵) showed that within the postcode NR128 which includes Tunstead, Wroxham and Horning there have been 8 recorded flood incidents. However, no further concern or detail was listed for Tunstead parish under Table 6-5 of the SFRA (2018) which summarised flood risk to town and villages in North Norfolk District.
24. The Lead Local Flood Authority (LLFA) datasets show in the North Norfolk Winter Flood Event 2020-2021 Report¹⁶ that there was 1 property affected by internal flooding within this period. Norfolk received an above normal amount of rainfall throughout December 2020 with a total of 1117.7mm rainfall, 204% of the Long-Term Average. On the 23 December 2020, rainfall was particularly concentrated within the worst affected where there were significant clusters of properties flooded with more isolated properties internally flooded in other parts of the district. The one property which was flooding in Tunstead within this period was along Market Street.
25. Looking at historic flooding incidents there was also a previous internal flooding report along Market Street in March 2013 and one incident reported along Crowgate Street in June 2016. The causes were that the landowner's property drainage was restricted and could not cope with heavy rainfall¹⁷.

Air and Climatic Factors

26. As part of the National Air Quality Strategy all local authorities are obliged to establish air quality levels in their area that meet national air quality objectives. If an area does not meet these objectives Air Quality Management Areas (AQMAs) are declared. The North Norfolk District Council Air Quality Annual Status Report (2024) confirms that there are no Air Quality Management Areas in the district¹⁸. This would suggest that air quality is generally not of a concern in the TNP area.

Material Assets

27. Tunstead has a number of facilities/services within the parish which particularly present along Market St such as the primary school, village hall and the Horse & Groom public house.
28. The bus service 70A runs through the parish from Wroxham Roys department store via Our Bus which is a private bus company¹⁹. According to the Our Bus website, this service runs Monday to Friday and the bus service stops off at two bus stops in the parish - opposite Tunstead Primary School and opposite the Olive Tree. There are also no other bus stops or services which run within Tunstead so residents who

¹⁵North Norfolk District Council Strategic Flood Risk Assessment. 2018. Source: [Home | Strategic Flood Risk Assessment \(north-norfolk.gov.uk\)](#)

¹⁶ Norfolk County Council North Norfolk Winter Flood Event 2020-2021 Report. Source: [Flood investigations - Norfolk County Council](#)

¹⁷ Norfolk County Council North Norfolk Flood Investigation Report (2019). Source: [Flood investigations - Norfolk County Council](#)

¹⁸North Norfolk District Council Air Quality Annual Status Report (2024) Available at: [Microsoft Word - ASR North Norfolk 2024](#)

¹⁹ [Our Bus | our-hire \(ourhire.co.uk\)](#)

live to the north of the parish along Mill Lane or Anchor St will have to rely on a private vehicle.

29. There is only a small amount of existing green space within Tunstead. This includes the recreational field/play space behind Tunstead Primary School where the village hall stands and the St Mary's Church grounds.
30. In terms of walking and cycling infrastructure, there is some access into the countryside via public rights of way. **Figures 11 and 12** show that there are a few public footpaths within Tunstead in the more central and southern parts of the settlement leading from Market Street northeast towards Church Lane and south towards St James Old Farm and Tunstead Rd. According to Google maps, the footpaths cross agricultural land and some footpaths such the one at 2 Market St close to Horse & public house travelling south to Tunstead Rd is not apparent.
31. Some of the routes are fragmented and there are no obvious circular routes within the parish. The northern part of the parish also lacks routes into the countryside partly because many of the fields are under agricultural production. There is no national cycle route through the parish.

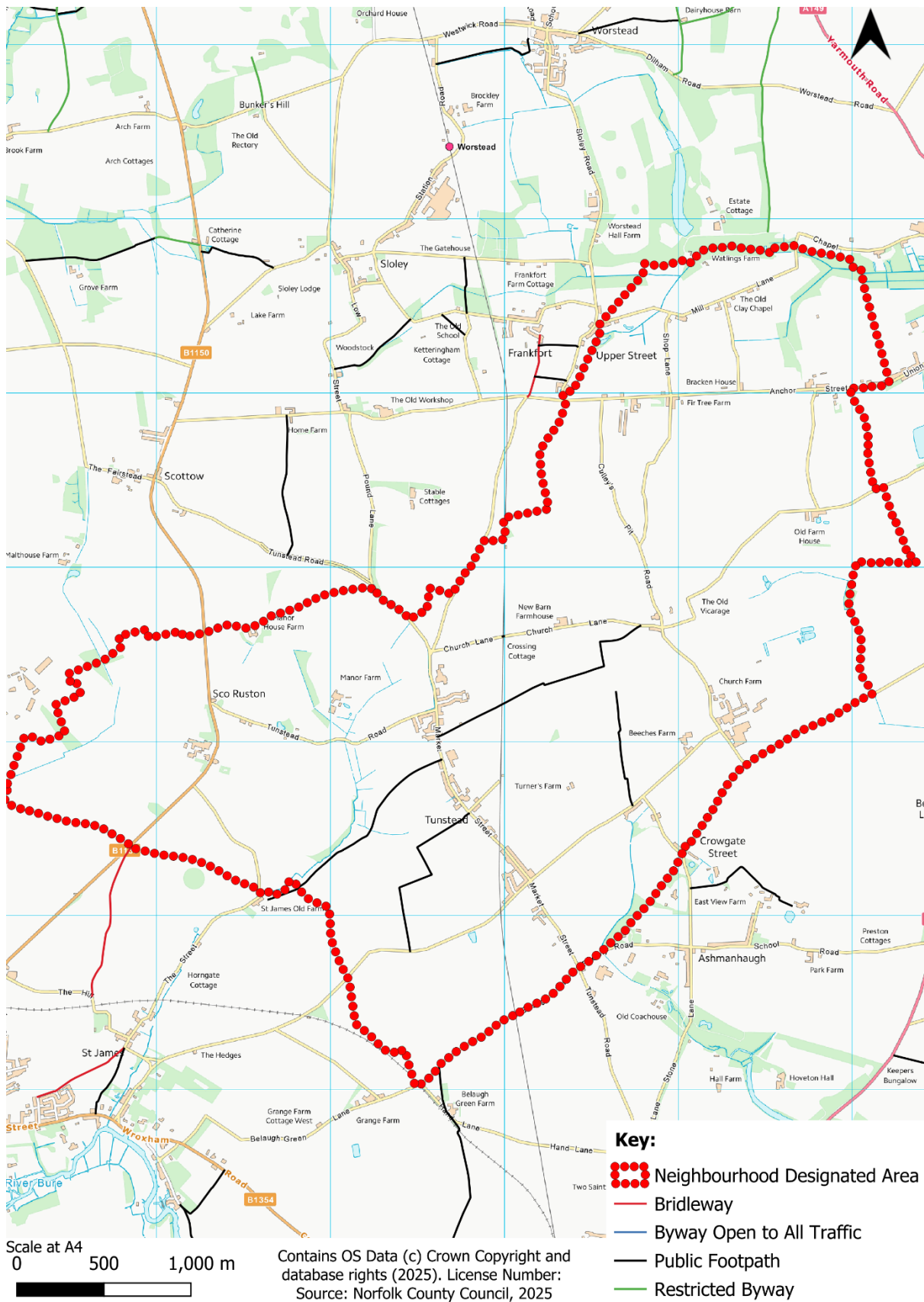


Figure 11-Public Rights of Way within Tunstead (Source: Norfolk County Council, 2025)

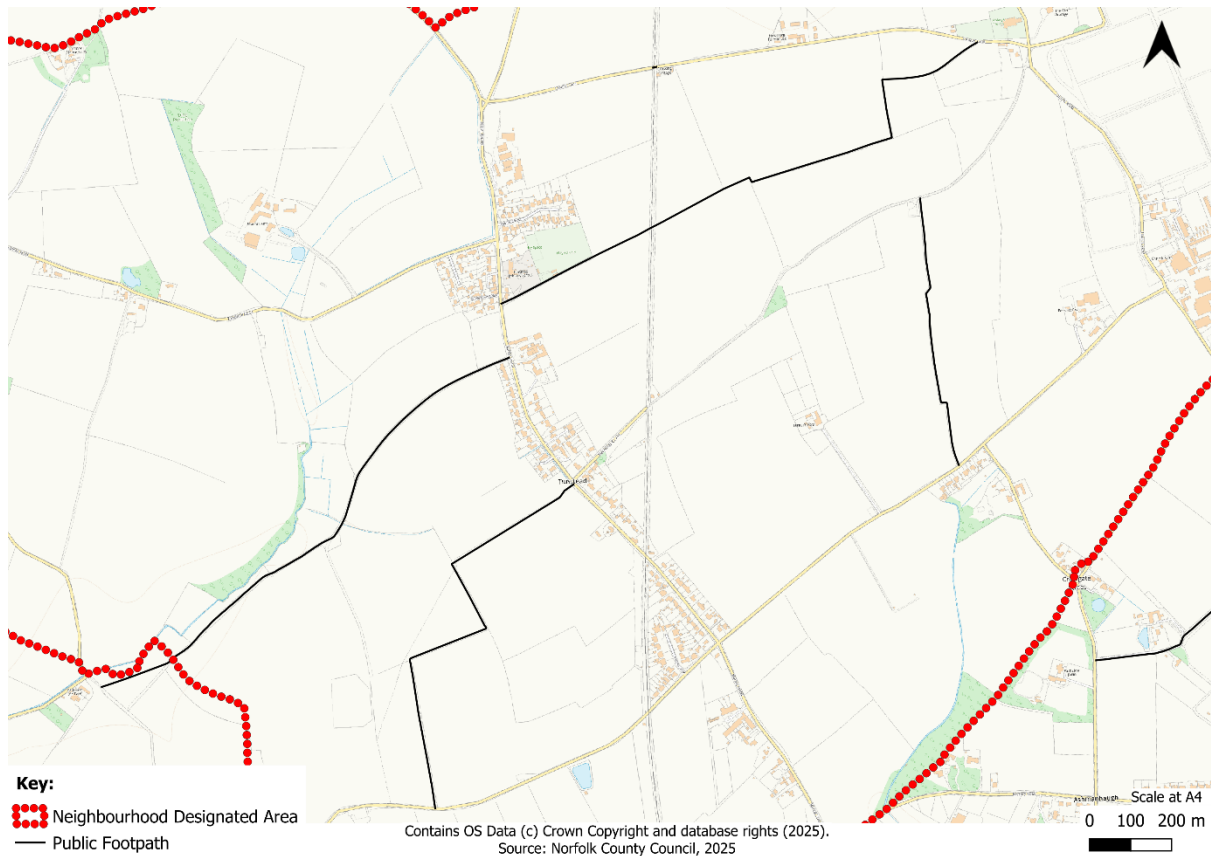


Figure 12-Public Rights of Way within the built-up settlement (Source: Norfolk County Council, 2025)

Cultural Heritage

32. According to Norfolk Heritage Explorer²⁰ there are 94 records of historic artefacts, structures, buildings, and marking in the landscape such as crop marks and ditches within the neighbourhood area. These include assets from multiple time periods including the Prehistoric age, Mesolithic, Neolithic, Bronze Age, Roman, Medieval, post-medieval and up to the 20th century including a World War One Memorial. Finds have included axe heads, coins, flint flakes, copper objects, ring ditches and sites of historic buildings including farmhouses, post medieval post mill, churches, and old houses.
33. There are eight listed buildings within the area as identified in **Figures 13 to 15**; The majority of the buildings are Grade II listed except the Church of St Mary which is Grade I²¹. There are no conservation areas, scheduled monuments, battlefields, or other historic designations within the neighbourhood area. However, as shown in **Figure 13** there are other historic designations in close proximity to the designated boundary including the RAF Coltishall Conservation Area to the west of the boundary.

²⁰ [Your Search Results - Norfolk Heritage Explorer](#)

²¹ [The List Search Results for Tunstead | Historic England](#)

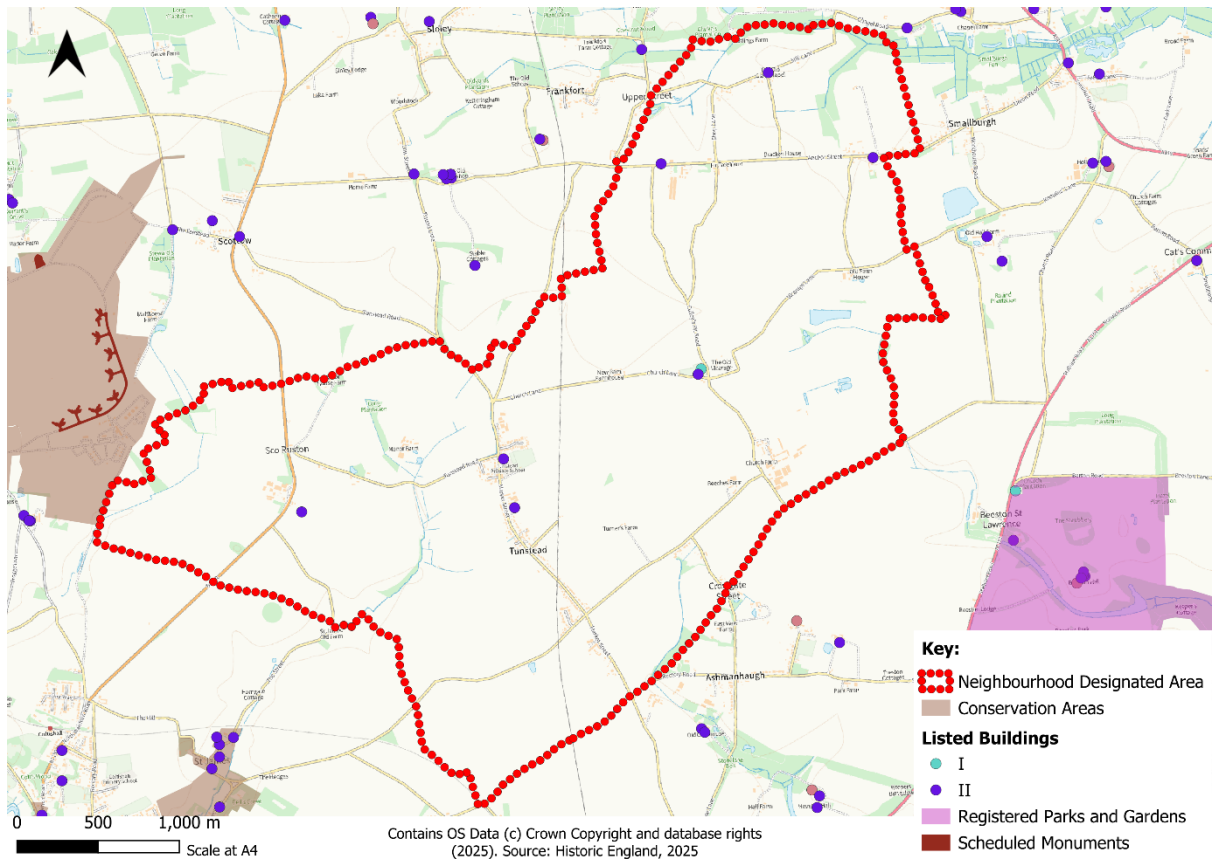


Figure 13- Heritage Assets within and around Tunstead (Source: Historic England 2025)

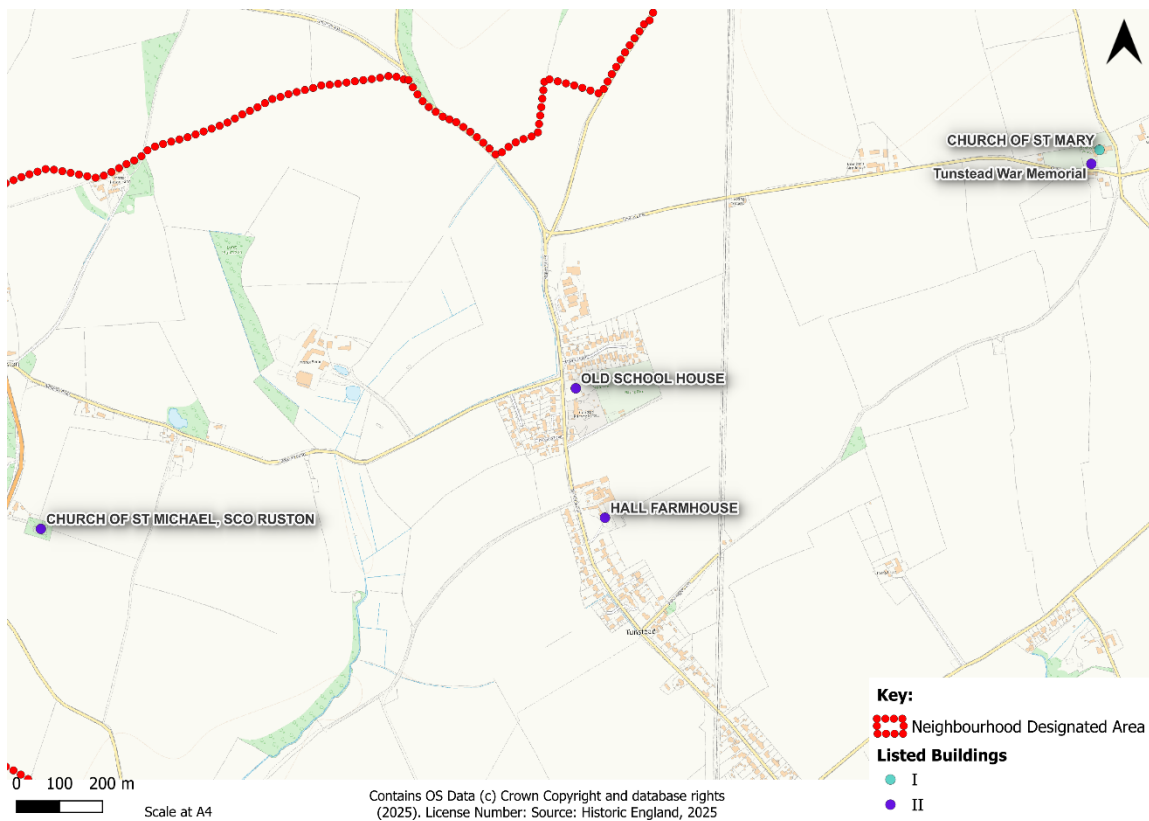


Figure 14- Listed buildings within Tunstead (Source: Historic England 2025)

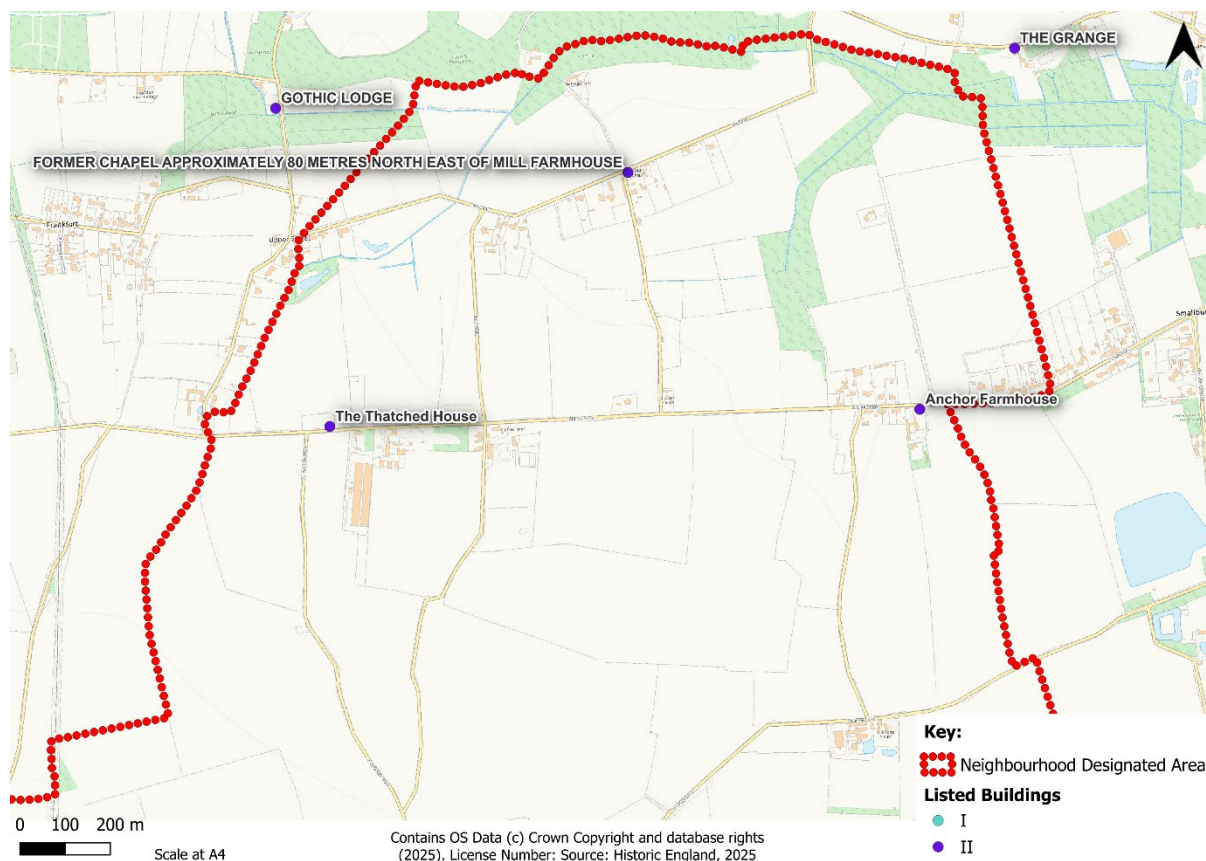


Figure 15-Listed buildings within Tunstead (Source: Historic England 2025)

Landscape

The parish falls also falls into the Low Plains Farmland (LPF) character area within the North Norfolk Landscape Character Assessment²². **Figure 16** marked with an **X** is where the neighbourhood area is within the context of the North Norfolk Landscape Character areas²³. The Low Plains Farmland 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.

²² North Norfolk District Council. 2021. Landscape Character Assessment. Source: [Home | Landscape character assessment \(north-norfolk.gov.uk\)](https://www.north-norfolk.gov.uk)

²³ Broadland District Council, Landscape Character Assessment SPD 2013. Source: <https://www.southnorfolkandbroadland.gov.uk/downloads/file/286/landscape-character-assessment-supplementary-planning-document-part-1-> and [Broadland District Council Landscape Character Assessment SPD \(southnorfolkandbroadland.gov.uk\)](https://www.broadland.gov.uk)

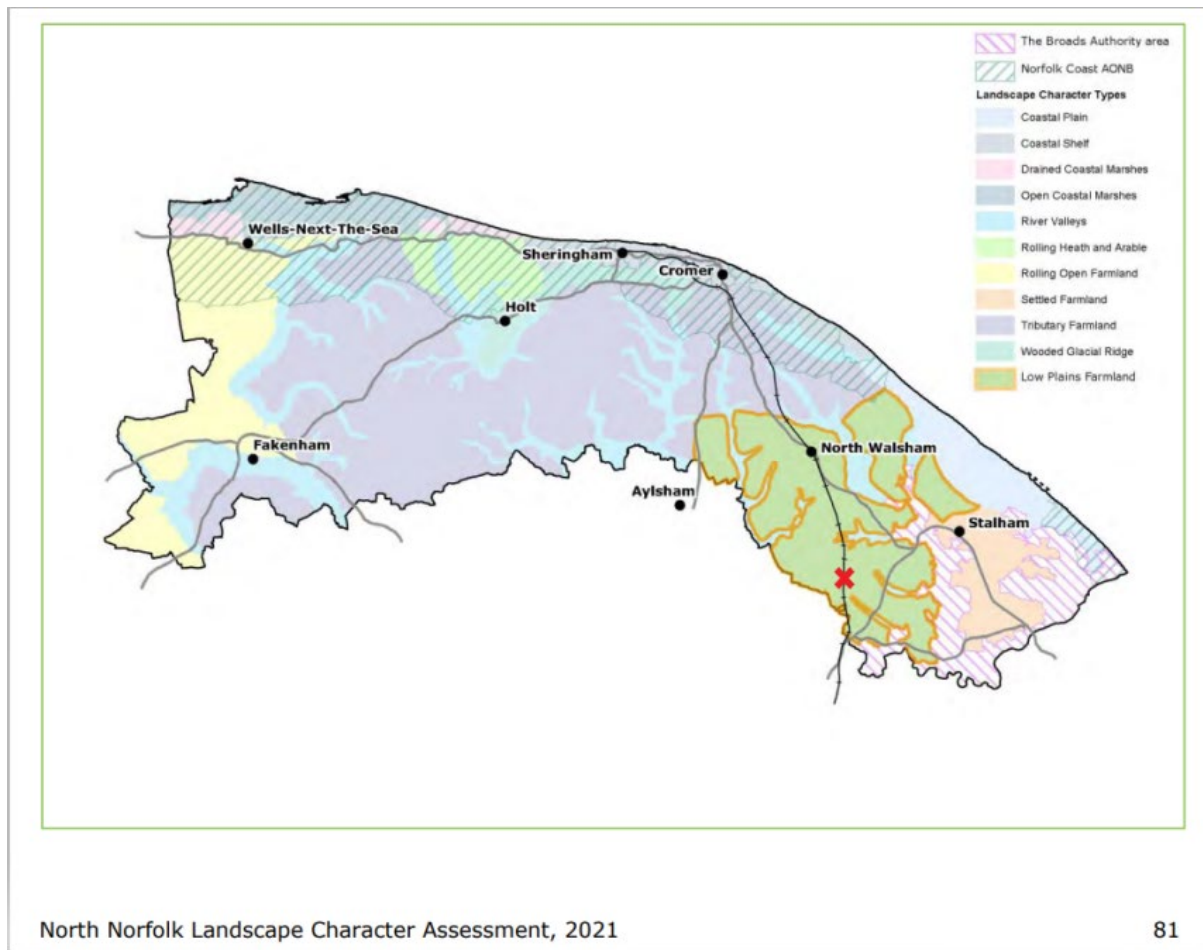


Figure 16-Tunstead location within the Low Plains Farmland character area (Source: North Norfolk District Council, Landscape Character Assessment SPD 2021)

The character area covers an extensive inland part of the lower-lying east part of the district and is intersected by South-Draining Valleys which drain to the Broads. Key characteristics relevant to the neighbourhood area include:

1. *Flat or very gently undulating terrain, draining by small streams.*
2. *A rural landscape in which arable land use predominates with pasture more common closer to the river valleys and the Broads*
3. *An open landscape with large fields and low hedges*
4. *Grassed bank and ditch field boundary features*
5. *Settlement comprises market towns, rural villages, hamlets and dispersed farmsteads*
6. *A network of rural lanes linking settlements*
7. *An expansive landscape with long views and church towers as landmark features*

There are a number of valued features and qualities within the character area including:

- *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 towers*

Forces for change which should be considered in the character area include:

- *Modern agricultural practices and change*
- *Uncertainty regarding future agricultural subsidy schemes following the UK's departure from the EU*
- *Conversion of agricultural buildings and scale of new storage structures*
- *Edge of town development and settlement expansion*
- *Demand for isolated new homes e.g. demand for isolated new homes can result in buildings that do not reinforce the local vernacular. Lighting and domestic external curtilage can be prominent in otherwise sparsely populated areas and this can affect the area's sense of remoteness and historic, rural character*
- *Changes to the road network*
- *Loss of traditional land uses and habitats*
- *Tree diseases and invasive species*
- *Renewable energy development*
- *Climate change*

The North Norfolk Landscape Character Assessment Landscape Guidelines include the need to:

1. *Conserve and expand areas of woodland and other non-arable habitats*
2. *Conserve sense of rurality*
3. *Conserve the nucleated character of villages*
4. *Protect and appropriately manage the historic parks*
5. *Prepare for climate change and potential loss of features through disease*
6. *Retain the character of the skyline*
7. *Enhance public rights of way*

SEA Screening

Legislative Background

34. The European Directive 2001/42/EC²⁴ is the basis for Strategic Environmental Assessments and Sustainability Appraisal legislation, which was transposed into English secondary legislation by the Environmental Assessment of Plans and Programmes Regulations 2004 otherwise known as the SEA Regulations. A SEA would be required if the implementation of the contents of the Tunstead Neighbourhood Plan are likely to cause significant environmental effects.
35. The assessment undertaken will follow and answer specific questions using criteria drawn from the European SEA Directive and Schedule 1 of the UK Environmental Assessment of Plans and Programmes Regulations 2004 when determining the likely significance of effects as shown in **Figure 17**²⁵.
36. **Figure 18** presents the flow diagram entitled Application of the SEA Directive to plans and programmes which is taken from the Practical Guide to the Strategic Environmental Assessment Directive, published in September 2005²⁶. **Figure 19** below assesses whether TNP will require a full SEA. The questions in the first column are drawn from **Figure 17** which sets out how the SEA Directive should be applied.
37. An assessment has been undertaken to determine whether the draft TNP requires SEA in accordance with the SEA Regulations. Where the results can be viewed below.

²⁴ [EUR-Lex - 32001L0042 - EN - EUR-Lex \(europa.eu\)](#)

²⁵ [The Environmental Assessment of Plans and Programmes Regulations 2004 \(legislation.gov.uk\)](#)

²⁶

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf

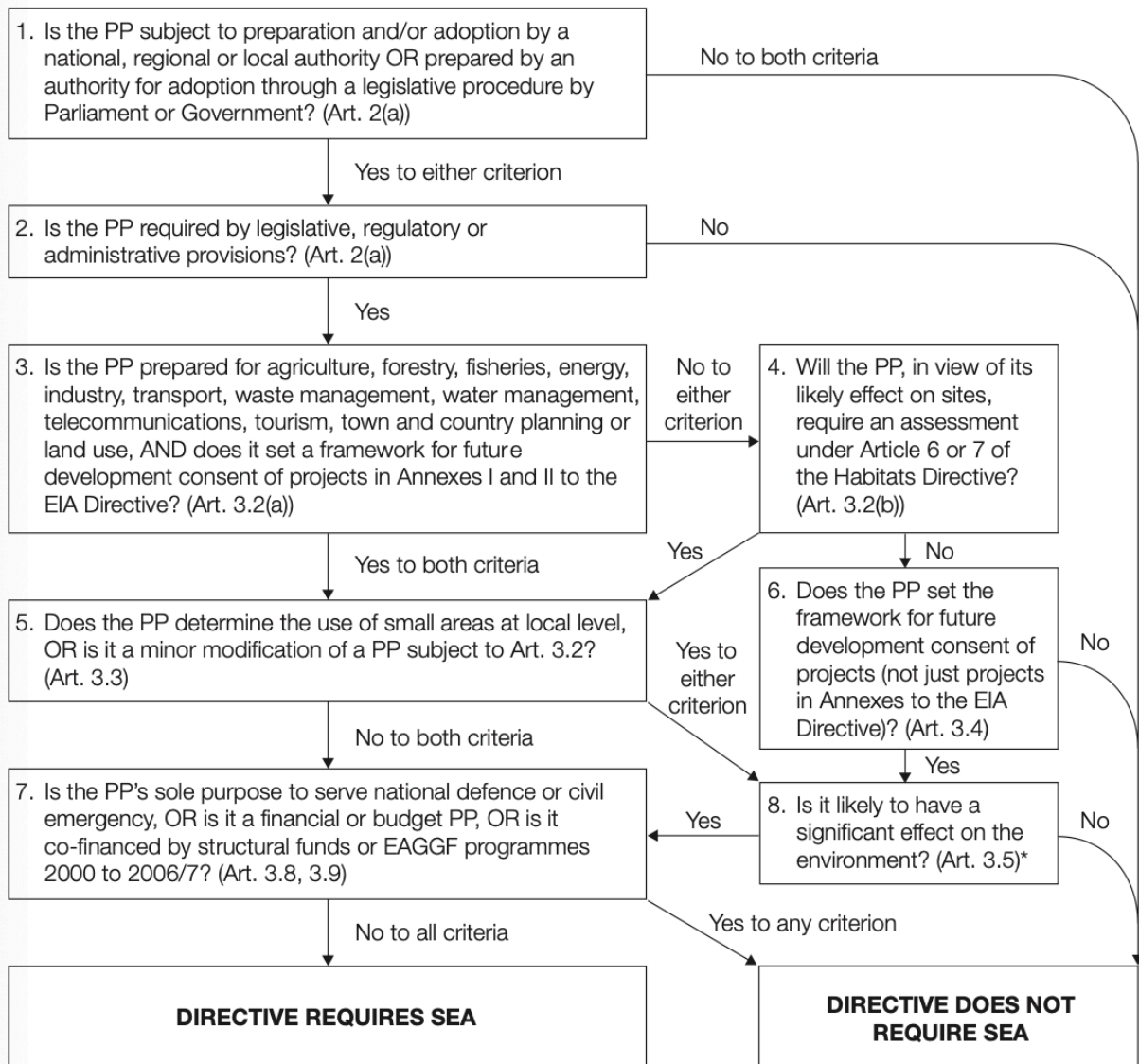
SCHEDULE 1- CRITERIA FOR DETERMINING THE LIKELY SIGNIFICANCE OF EFFECTS ON THE ENVIRONMENT

1. The characteristics of plans and programmes, having regard, in particular, to:
 - a) the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources;
 - b) the degree to which the plan or programme influences other plans and programmes including those in a hierarchy;
 - c) the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;
 - d) environmental problems relevant to the plan or programme; and
 - e) the relevance of the plan or programme for the implementation of [F1retained EU law] on the environment (for example, plans and programmes linked to waste management or water protection).

2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:
 - a) the probability, duration, frequency and reversibility of the effects;
 - b) the cumulative nature of the effects;
 - c) the transboundary nature of the effects;
 - d) the risks to human health or the environment (for example, due to accidents);
 - e) the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);
 - f) the value and vulnerability of the area likely to be affected due to—
 - (i) special natural characteristics or cultural heritage;
 - (ii) exceeded environmental quality standards or limit values; or
 - (iii) intensive land-use; and
 - g) the effects on areas or landscapes which have a recognised national, Community or international protection status.

Figure 17-Schedule 1 Criteria for determining the likely significance of effects

This diagram is intended as a guide to the criteria for application of the Directive to plans and programmes (PPs). It has no legal status.



*The Directive requires Member States to determine whether plans or programmes in this category are likely to have significant environmental effects. These determinations may be made on a case by case basis and/or by specifying types of plan or programme.

Figure 18-Application of the SEA Directive to plans and programmes

	Stage	Y/N	Justification
1	Is the Neighbourhood Plan (PP) subject to preparation and/or adoption by a national, regional or local authority OR prepared by an authority for adoption through a legislative procedure by Parliament or Government (Art. 2(a))	Y	<p>The NP is being prepared by Tunstead parish council (as the “relevant qualifying body”) and will be made North Norfolk District Council, subject to Tunstead passing an independent examination and successful local community referendum.</p> <p>The preparation of the Tunstead Neighbourhood Plan is allowed under primary legislation: The Town and Country Planning Act (1990) as amended by the Localism Act (2011).</p> <p>The preparation of NP’s is subject to several relevant regulations as shown below (not intend to be a complete list):</p> <ul style="list-style-type: none"> • The Neighbourhood Planning (General) Regulations 2012, • the Neighbourhood Planning (referendums) Regulations 2012 • the Neighbourhood Planning (General)(Amendment) Regulations 2015 • the Neighbourhood Planning (General)and Development Management Procedure (Amendment) Regulations 2016 • the Neighbourhood Planning (General)and Development Management Procedure (Amendment) Regulations 2012 <p>GO TO QUESTION 2</p>
2	Is the Neighbourhood Plan (PP) required by legislative, regulatory, or administrative provisions? (Art. 2(a))	Y	<p>Whilst it is not a requirement for a parish to create a Neighbourhood Plan under the Town and Country Planning Act (1990) and Localism Act (2011), the NP will eventually be “made” and form part of the Development Plan for North Norfolk District Council. This authority is directed by legislative processes, and it is important that the screening process considers whether it is likely to have significant environmental effects</p>

	Stage	Y/N	Justification
			and hence whether an SEA is required under the Directive. GO TO QUESTION 3
3	Is the Neighbourhood Plan (PP) prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use, AND does it set a framework for future development consent of projects in Annexes I and II to the EIA Directive? (Art. 3.2(a))	Y	<p>Developments that fall within Annex I are ‘excluded’ development for Neighbourhood Plans (as set out in Section 61(k) of the Town and Country Planning Act 1990 (as subsequently amended)²⁷ and the Localism Act 2011 Schedule 9 Part 2 Para 7 Section 38 B (1)(b),(6)²⁸.</p> <p>A Neighbourhood Plan is prepared for Town and Country Planning and Land use. The Tunstead Neighbourhood Plan can include at a neighbourhood level, through different policy areas, the framework for development that would fall within Annex II of the EIA Directive.</p> <p>The Neighbourhood Plan is being prepared to set out a framework for town and country planning and land use within the parish of Tunstead. Its intention is to complement the higher order strategic framework that already exists for land use planning across the North Norfolk District. The Neighbourhood Plan seeks to align and be in general conformity with the strategic framework.</p> <p>The Neighbourhood Plan is not allocating any development itself but anticipates being one of the key tools to manage future development with Tunstead.</p> <p>GO TO QUESTION 5</p>
4	Will the Neighbourhood Plan (PP), in view of its likely effect on		A Habitats Regulations Assessment (HRA) screening of the Neighbourhood

²⁷ [Town and Country Planning Act 1990 \(legislation.gov.uk\)](http://legislation.gov.uk)

²⁸ [Localism Act 2011 \(legislation.gov.uk\)](http://legislation.gov.uk)

	Stage	Y/N	Justification
	sites, require an assessment under Article 6 or 7 of the Habitats Directive? (Art. 3.3)		Plan has been undertaken in the next section and has concluded that the Neighbourhood Plan is not likely to have a significant effect on any European site, either alone or in combination. GO TO QUESTION 6
6	Does the Neighbourhood Plan (PP) set the framework for future development consent of projects (not just projects in Annexes to the EIA Directive)? (Art. 3.4)		Although the Neighbourhood Plan does not allocate sites for development, it includes non-strategic policies which proposals for development within the parish will be assessed against when materially relevant. GO TO QUESTION 8
8	Is it likely to have a significant effect on the environment? (Art. 3.5)	N	SEE FIGURE 17 AND 18 – PLAN DOES NOT REQUIRE SEA.

Figure 19-Application of SEA Directive to TNP

****PP in this instance refers to Neighbourhood Plan***

38. Schedule 1 of the SEA Regulations sets out the criteria for determining the likely significance of effects. These are listed in **Figure 20** below along with comments on the extent to which the TNP meets these criteria.

SEA Directive Criteria (Annex II)	Comments	Likely Significant Effect? Y/N
Characteristics of the plan and programmes, having regard in particular, to:		
a) The degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources	<p>Once made, TNP will become part of the statutory development plan and will guide the delivery of development within the designated plan area.</p> <p>The parish of Tunstead is located within North Norfolk District. The Core Strategy (2011 designates Tunstead as being in the countryside. However, in the emerging local plan, which is currently at the examination stage, Policy SS1 Spatial Strategy is proposed to be amended to incorporate Tunstead as a Small Growth Village²⁹.</p> <p>In the current site allocations plan (2011) and in the emerging local plan, which is currently at examination, Tunstead has not been allocated sites.</p> <p>In terms of the degree to which TNP sets a framework, it does not allocate land for development.</p>	N
b) The degree to which the plan or programme influences other plans and programmes including those in a hierarchy	The Tunstead Neighbourhood Plan will be adopted alongside the higher order adopted Local Plan and National Planning Policy Framework and form part of the District Council's Development Plans. The Neighbourhood Plan must be in general conformity to the strategic framework and will expand upon some of the Local Plan policies, providing	N

²⁹ [Local Plan Further Consultation \(to address the Planning Inspectors interim findings\)](#)

SEA Directive Criteria (Annex II)	Comments	Likely Significant Effect? Y/N
	<p>supplementary information on a local scale.</p> <p>It does not have an influence over other plans. However, once made TNP will form part of the statutory development plans for Tunstead and will be used in conjunction with the current development plans to determine planning applications.</p>	
<p>c) The relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development</p>	<p>One of the Basic Conditions which TNP must meet is to contribute towards sustainable development. Given the non-strategic nature of the TNP this does not have the potential to restrict the delivery of other plans or programmes.</p>	<p>N</p>
<p>d) Environmental problems relevant to the plan or programme</p>	<p>Baseline information relating to TNP was described earlier in this Screening Document. There are no European statutory designated sites in the neighbourhood area, though there are a few important European designations within approximately 2km in all directions. These include:</p> <ul style="list-style-type: none"> • The Broads Special Area of Conservation (SAC) • Broadland Ramsar and Special Protection Area (SPA) • Smallburgh Fen Site of Specific Scientific Interest (SSSI) • Broad Fen, Dilham Site of Specific Scientific Interest (SSSI) <p>The plan itself will not specifically allocate land for</p>	<p>N</p>

SEA Directive Criteria (Annex II)	Comments	Likely Significant Effect? Y/N
	development and will not exacerbate any significant known environmental problems.	
e) The relevance of the plan or programme for the implementation of community legislation on the environment (eg plans and programmes linked to waste management or water protection)	The implementation of community legislation is unlikely to be significantly compromised by the Neighbourhood Plan.	N
Characteristics of the effects and of the area likely to be affected, having regard, in particular, to		
a) The probability, duration, frequency, and reversibility of the effects	TNP does not contain any site-specific development proposals that will result in complex, widespread, long lasting, or serious environmental effects.	N
b) The cumulative nature of the effects	As it will not allocate land for development TNP will not lead to any cumulative effects in combination with existing or emerging plans.	N
c) Transboundary nature of effects	The TNP area provides supplementary policy areas on a local scale such as design, The impacts for transboundary effects beyond the parish are unlikely to be significant.	N
d) The risks to human health or the environment (for example, due to accidents)	TNP is unlikely to produce any significant effects to human health or the environment.	N
e) The magnitude and spatial extent of the effects (geographical area and size of	The TNP area has a total population of around 710 (Census 2021). This sits within the context of a total population of 103,000 in North Norfolk district. TNP remains a	N

SEA Directive Criteria (Annex II)	Comments	Likely Significant Effect? Y/N
the population likely to be affected)	non-strategic plan and the principle of development that will take place has already been established within the North Norfolk Local Plan.	
<p>f) The value and vulnerability of the area likely to be affected due to –</p> <ul style="list-style-type: none"> i. Special natural characteristics or cultural heritage; ii. Exceeded environmental quality standards or limit values; or iii. Intensive land-use 	<p>i) There are no national statutory natural designations which fall within Tunstead. Regarding cultural heritage, there are 8 statutory listed buildings within the neighbourhood plan area according to the latest data on the Historic England website. As the plan does not allocate land for development it is not expected to have likely significant effects on the natural and cultural characteristics of the area.</p> <p>ii) TNP is unlikely to result in exceedance of environmental quality standards, such as those relating to air, water, and soil quality.</p> <p>iii) TNP is unlikely to bring forward development to an extent that would result in a significant intensification of Local land Use.</p> <p>The emerging TNP does not include site allocations and therefore are not anticipated to have likely significant effects on the parish.</p>	N

SEA Directive Criteria (Annex II)	Comments	Likely Significant Effect? Y/N
g) The effects on areas of landscapes which have a recognised national, Community or international protection status	<p>The Neighbourhood Plan Area does not have any recognised international, national, or local protection status.</p> <p>The nearest landscape of international/national status is 500m away to the north of the TNP area and the site is called Smallburgh Fen (SSSI). This area also falls with The Broads (SAC) and Broadland (SPA; Ramsar) designation.</p> <p>TNP is not anticipated to have likely significant effects on designated landscapes given the plan cannot influence areas outside of the parish and it will not allocate land for development.</p> <p>The environmental effects on areas of international and national status have been considered and examined through the Local Plan.</p>	N

Figure 20-Likely Significant Effects

SEA Screening Conclusion

39. A Screening Assessment has been undertaken by applying the criteria from the SEA Directive and Schedule 1 of the SEA Regulations to determine whether or not the TNP is likely to have significant environmental effects when assessed against the topics listed in the SEA Regulations.

40. TNP will set out a vision and non-strategic planning policies to shape development in Tunstead up to 2040. The plan does not allocate sites for development.

41. On this basis, it is considered that TNP does not have the potential to have significant environmental impacts, and SEA is not required.

What is a Habitats Regulation Assessment?

42. A Habitats Regulations Assessment (HRA) is the process by which a ‘competent authority’ is required to assess the potential impacts of plans and projects (such as Local Plans, Neighbourhood Plans or development proposals put forward in planning applications) on International Sites in accordance with Article 6 (3) of the EU Habitats Directive and Regulation 61 of the [Conservation of Habitats and Species Regulations 2017 \(as amended\)](#). A competent authority, such as the Local Planning Authority, must determine if a plan or project may affect the protected features set out in the Conservation Objectives of an International habitat site before deciding whether to undertake, permit or authorise it.

What are the International (European) Designated Sites?

43. There are three types of International Sites designations:

- **Ramsar:** Ramsar sites are wetlands of international importance, designated under the Ramsar Convention on Wetlands³⁰.
- **Special Area of Conservation (SAC):** Areas which have been given special protection for a variety of wild animals, plants and habitats.
- **Special Protection Area (SPA):** Identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds found within EU countries.

Screening

44. To fulfil the legal requirements if likely significant effects will occur with the implementation of the TNP upon the International Sites (Natura 2000 sites) an initial screening assessment has been undertaken which is the first stage of the HRA process. If any likely significant effects on International Sites will occur then the screening is followed by an appropriate assessment (second stage of the HRA process) which needs to consider these impacts in more detail and what mitigation measures, if any, can be achieved to address these³¹.

45. The purpose of the Screening stage is to:

- Identify all features of the TNP that would have **no effect** on an International/European site. These features can be eliminated from further consideration in respect of this and other plans.
- Identify all aspects of the TNP that would **not be likely to have a significant effect** on an International/European site (i.e. would have some effect because of links/connectivity but the effect is not significant), either alone or in combination

³⁰ The Ramsar Convention on Wetlands is an international treaty for the conservation and sustainable use of wetlands. It is named after the city of Ramsar in Iran, where the Convention was signed in 1971. It came into force in 1975.

³¹ [Habitats regulations assessments: protecting a European site - GOV.UK \(www.gov.uk\)](#)

with other aspects of the same plan or other plans or projects. These do not require 'Appropriate Assessment'.

- Identify those aspects of the TNP where it is **not possible to rule out the risk of significant effects** on a European site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the plan that will require Appropriate Assessment.

Case Law and the Interpretation of 'likely significant effects'

46. Before undergoing the assessment, it is useful to reflect on relevant case law to help interpret when effects should be considered as a likely significant effect, when carrying out HRA of a neighbourhood plan. In the Waddenzee case³² the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 105 in the Conservation of Habitats and Species Regulations 2017³³):

"An effect should be considered 'likely', "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site" (paragraph 45). An effect should be considered 'significant', "if it undermines the conservation objectives" (paragraph 48). Where a plan or project has an effect on a site "but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned" (paragraph 47)."

47. As well as this another relevant opinion delivered to the Court of Justice of the European Union stated: *"The requirement that an effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill (Paragraph 48)."*³⁴

48. This opinion on the interpretation of significant effects in the 'Sweetman' case allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered de minimis; referring to such cases as those "that have no appreciable effect on the site". In practice such effects that could be screened out as having no likely significant effect would be 'insignificant'. The HRA Screening assessment therefore considers whether the Pre-Submission Draft of Tunstead Neighbourhood Plan and its policies could have likely significant effects either alone or in combination.

³² Case C-127/02 Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij. Directive 92/43/EEC – Conservation of natural habitats and of wild flora and fauna – Concept of 'plan' or 'project' – Assessment of the implications of certain plans or projects for the protected site
Source: [EUR-Lex - 62002CJ0127 - EN - EUR-Lex](#)

³³ [The Conservation of Habitats and Species Regulations 2017](#)

³⁴ Case C-258/11 Peter Sweetman Ireland Attorney General Minister for the Environment, Heritage and Local Government v An Bord Pleanála (Reference for a preliminary ruling from the Supreme Court (Ireland)) (Environment – Special conservation areas – Assessment of the impact of a plan or project on a protected site – Adverse effect on the integrity of the site). Source: [CURIA - Documents](#)

Assessment

49. Firstly, it is established practice in HRA to identify any International/European Sites that could possibly be affected within the area covered by the plan proposal and other sites that may be affected beyond this area. In this screening assessment the area screened was the TNP designated area as well as a distance of 20 kilometres (km) taken from the centre of TNP as shown in **Figure 20**. A distance of 20 kilometres from the centre point of the TNP area was used in the first instance because this has been agreed with Natural England for the relevant Local Plans HRAs in this region³⁵ and is considered precautionary. In line with HRA requirements, the application of a 20-kilometre buffer is considered a highly precautionary distance with relation to potential impacts to the surrounding area.
50. The assessment also considers areas that may be functionally linked to the International/European sites. The term ‘functional linkage’ refers to the role or ‘function’ that land or sea beyond the boundary of a European site might fulfil in terms of ecologically supporting the populations for which the site was designated or classified. Such land is therefore ‘linked’ to the European site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status³⁶.
51. Whilst the boundary of an International/European site will usually be drawn to include key supporting habitat for a qualifying species, this cannot always be the case where the population for which a site is designated or classified is particularly mobile. Individuals of the population will not necessarily remain in the site all the time. The mobility of qualifying species is considerable and may extend so far from the key habitat that forms the designated area (SAC or SPA) that it would be entirely impractical to attempt to designate or classify all of the land or sea that may conceivably be used by the species.
52. **In the TNP area there are no designated International/European sites.** This screening assessment has also considered the impact on International Sites within a 20km radius of the TNP area as an in-combination assessment (**Figure 22**). The point for measuring 20km has been taken from the centre of TNP as shown in **Figure 21**. A number of International Sites are shown to be located within 20km radius of the TNP area including:

³⁵North Norfolk Local Plan HRA Proposed Submission Version Report 2022. Source: [Habitats Regulations Assessment - North Norfolk Local Plan \(Reg 19\) Publication](#)

³⁶ [Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions - NECR207 \(naturalengland.org.uk\)](#)

Special Areas of Conservation	Special Protection Areas	Ramsar Sites
<ul style="list-style-type: none"> • Broadland • Greater Wash • Great Yarmouth North Denes • Norfolk Valley Fens • The Broads • Paston Great Barn • Winterton-Horsey Dunes 	<ul style="list-style-type: none"> • Broadland • Breydon Water • Greater Wash • Great Yarmouth North Denes 	<ul style="list-style-type: none"> • Broadland • Breydon Water

Figure 21- Table of the International Designated Wildlife Sites within 20km radius of TNP

53. Natural England provides detailed information about the European Sites with reference to Standard Data Forms for the SPA sites and Natural England’s Site Improvement Plans³⁷. Natural England’s conservation objectives³⁸ for the SPA sites have also been reviewed when writing this report. These state that site integrity must be maintained or restored by maintaining or restoring the habitats of qualifying features, the supporting processes on which they rely, and populations of qualifying species.

54. As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended), an assessment has been undertaken of the potential ‘likely significant effects’ of the plan. The assessment has been prepared in order to identify which policies would be likely to have a significant effect on European sites. The Screening assessment has been conducted without taking mitigation into account, in accordance with the ‘People Over Wind’ judgment which took place in April 2018³⁹. The judgment clarified that when making screening decisions for the purposes of deciding whether an appropriate assessment is required, competent authorities cannot take into account any mitigation measures in neighbourhood plans, permissions in principle and certain development orders⁴⁰.

³⁷ [Natural England Access to Evidence - Site Improvement Plans: East of England](#)

³⁸ [Natural England Access to Evidence - Conservation Objectives for European Sites](#)

³⁹ The Court of Justice of the European Union delivered its judgment in [Case C-323/17 People Over Wind & Peter Sweetman v Coillte Teoranta \(‘People over Wind’\)](#).

⁴⁰ GOV. Para 009 . Source: [Appropriate assessment - GOV.UK \(www.gov.uk\)](#)

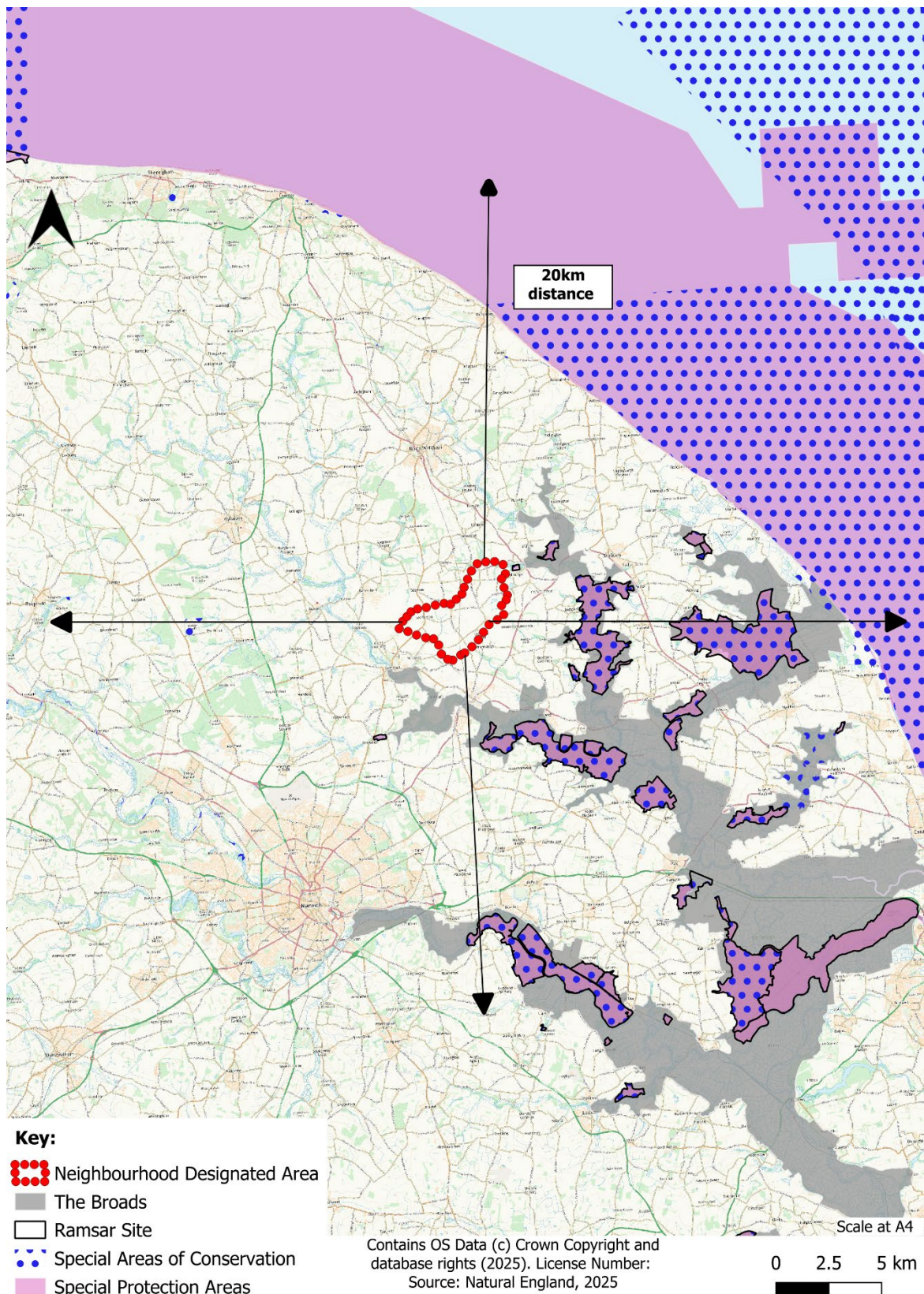


Figure 22- Map of the International Designated Wildlife Sites within 20km radius of TNP

55. Each European site has a set of interest features which are the ecological features for which the site is designated or classified, and the features for which Member

States should ensure the site is maintained or where necessary restored. European sites are at risk if there are possible means by which any aspect of a plan or project can, when being taken forward for implementation, pose a potential threat to the wildlife interest of the sites. This is often referred to as the ‘impact pathway’. Potential impact pathways causing significant effects are:

- Physical loss or damage to habitat;
- Non-physical disturbance (noise, vibration and light pollution);
- Pollution Impacts (Air, Non-toxic contamination, Wastewater) ;
- Recreational pressure;
- Increased pressure on water resources
- Urban effects

HRA Impacts Screening

56. A risk-based approach involving the application of the precautionary principle was adopted in the assessment, such that a conclusion of ‘no likely significant effect’ (LSE) would only be reached where it was considered unlikely, based on current knowledge and the information available, that a TNP policy would have a significant effect on the integrity of a European site. TNP does not allocate land for development and therefore will not directly result in an increase in the number of new dwellings within the vicinity of European Sites. A summary of findings linked to potential impact pathways are considered in **Figure 23** and an assessment of potential impacts of the draft policies contained within TNP is provided in **Figure 24**.

HRA Impacts Screening

Impact Pathway	Findings
Physical loss or damage to habitat	<p>Habitat loss from development in areas outside of the European site boundaries may result in likely significant effects where that habitat contributes towards maintaining the interest feature for which the European site is designated. This includes land which may provide offsite movement corridors such as sheltering habitat for mobile species Including birds, bats and fish. European sites susceptible to the indirect effects of habitat loss are restricted to those with qualifying species that rely on offsite habitat.</p> <p>As TNP is not allocating any sites for development in the area it is considered there will be no likely significant effects of physical loss or damage to a habitat and is screened out of the assessment.</p>
Non-physical disturbance	Non-physical disturbance effects such as noise and vibration are most likely to disturb bird species and thus are a key

Impact Pathway	Findings
(noise, vibration and light pollution)	<p>consideration with respect to potential effects on European sites where birds are the qualifying features. Light pollution from artificial lighting at night also has the potential to affect species where it occurs in close proximity to key habitat areas, such as key roosting sites of SPA birds.</p> <p>It has been assumed that the effects of non-physical disturbances are most likely to be significant within a distance of 500 metres from the source.</p> <p>The SAC/SPA/Ramsar Sites are located further away than 500 metres from the Neighbourhood Plan area and therefore is not considered susceptible to non-physical disturbance from development in the TNP area.</p> <p>As TNP is not allocating any sites for development in the area it is considered there will be no likely significant effects of non-physical disturbance to a habitat and is screened out of the assessment.</p>
Non-toxic contamination	<p>A non-toxic environment is understood to be an environment that is free from chemical pollution and of exposures to hazardous chemicals at levels that are harmful to human health and to the environment. An example of non-toxic contamination in the environment is the creation of dust from human activities such as road transport, construction and industry⁴¹. Dust can smother terrestrial habitats, preventing natural processes, and an increased sediment can potentially affect the aquatic habitats/species.</p> <p>As TNP is not allocating any sites for development in the area it is considered there will be no likely significant effects of non-contamination and is screened out of the assessment.</p>
Air pollution	<p>There are number of atmospheric pollutants which can result in direct or indirect impacts to Habitats sites. These impacts are usually caused when the qualifying features are plants, soils and wetland habitats. However, some species may also be indirectly impacted from air pollution causing changes in habitat composition.</p> <p>Around the world the primary contributors to atmospheric pollution is transport and industry related activities⁴². The main</p>

⁴¹ [Monitoring ambient air: particulate matter - GOV.UK](#)

⁴² [Air quality, energy and health](#)

Impact Pathway	Findings
	<p data-bbox="472 282 1380 663">pollutants to atmospheric pollution are considered to be oxides of nitrogen (NO_x) or sulphur dioxide (SO₂)⁴³. In England, road transport is a major source of emissions of nitrogen oxides contributing to 30% of emissions in 2022 alone. It has been stated that excess deposition of nitrogen (NO_x) compounds may lead to a cascade of environmental problems including both soil and freshwater acidification, the reduction of biodiversity (Zhang et al; 2021⁴⁴) and cause eutrophication of soils and water affecting nutrient levels and reducing the diversity of species in sensitive environments⁴⁵.</p> <p data-bbox="472 707 1380 931">Based on the 2019 Highways England Design Manual for Road and Bridges (DMRB) LA 105 Air quality⁴⁶ (which sets out the requirements for assessing and reporting the effects of highway projects on air quality), the report states that an assessment of the impact of pollutant concentrations on sensitive receptors should be done within 200m from the road itself.</p> <p data-bbox="472 976 1380 1077">As TNP is not allocating any sites for development in the area it is considered there will be no likely significant effects of air pollution on the European Sites and is screened out of the assessment.</p>
<p data-bbox="201 1099 400 1167">Recreational pressure</p>	<p data-bbox="472 1099 1380 1402">Recreational activities can result in significant effects on European sites. European sites with qualifying bird species are likely to be particularly susceptible to recreational disturbances from walking, dog walking, angling, off-road vehicles and motorbikes, wildfowling, and water sports. In addition, recreation can physically damage habitat as a result of trampling, fire or vandalism and also through erosion associated with terrestrial activities.</p> <p data-bbox="472 1447 1380 1749">Each European site will typically have a 'Zone of Influence' (ZOI) within which increases in population would be expected to result in likely significant effects. Zones of influence are areas from within which it is deemed there will be likely significant effects arising from additional residents living within the zone and travelling to European sites for recreation. This determines where new development may result in changes in recreation and therefore where mitigation will be necessary.</p> <p data-bbox="472 1794 1380 1863">ZOIs were developed for North Norfolk District by setting a series of distance bands around European sites based upon the</p>

⁴³ [Emissions of air pollutants in the UK - Summary - GOV.UK](#)

⁴⁴ [Atmospheric nitrogen deposition: A review of quantification methods and its spatial pattern derived from the global monitoring networks - ScienceDirect](#)

⁴⁵ [Emissions of air pollutants in the UK - Background - GOV.UK](#)

⁴⁶ [LA 105 - Air quality \(standardsforhighways.co.uk\)](#)

Impact Pathway	Findings
	<p>distance beyond the site boundary which might conceivably be impacted by development within the distributional alternatives, through three main pathways. The ZOI for the European Sites Include⁴⁷:</p> <ul style="list-style-type: none"> • Broadland (25km) • Breydon Water (30km) • Greater Wash (61km) • Great Yarmouth North Denes (30km) • Norfolk Valley Fens (15km) • The Broads (25km) • Paston Great Barn (20km) • Winteron-Horsey Dunes (30km) <p>TNP is not allocating any sites so a full HRA should be ruled out at this stage.</p>
<p>Changes to hydrology, including water quantity and quality</p>	<p>An increase in demand for water abstraction and treatment resulting from any growth proposed in the TNP area could result in changes in hydrology at European sites. Depending on the qualifying features and particular vulnerabilities of the European sites, this could result in likely significant effects, for example, due to changes in environmental or biotic conditions, water chemistry and the extent and distribution of preferred habitat conditions.</p> <p>The TNP does not allocate any development and does not have influence over any development outside of the TNP designated area. Therefore, no likely significant effects will occur from TNP as a result of changes to hydrology either alone or in-combination with other plans and policies.</p>

Figure 23-Summary of Impact Pathways

⁴⁷ [Habitats Regulations Assessment - North Norfolk Local Plan \(Reg 19\) Publication](#) – Distances set out in Appendix 3

Policy	Description	Likely Significant Effects (LSE)	Recommendation at Screening Stage
Policy TS1: Small Scale Housing Growth	This policy addresses housing mix with specific regard to the results from the Tunstead with Sco-Ruston Housing Needs Assessment (HNA) 2024 including requirements that ensure future housing development meets the needs of local people.	No LSE – does not promote development but relates to qualitative criteria for development	None. This policy does not trigger the need for an appropriate assessment (HRA Stage 2) to be undertaken
Policy TS2: Design	Requiring high quality design that accords with the Tunstead with Sco-Ruston Design Codes/Guide Document 2024.	No LSE – policy is qualitative and does not promote development	None. This policy does not trigger the need for an appropriate assessment (HRA Stage 2) to be undertaken.
Policy TS3: Flood and Water Management	This policy sets out detail that development proposals must include a proportionate drainage strategy showing how foul/surface water is managed. Also details set out on SuDS.	No LSE – policy is qualitative and does not promote development	None. This policy does not trigger the need for an appropriate assessment (HRA Stage 2) to be undertaken.
Policy TS4: Proposals for Community Use	Proposals that deliver new or improved community facilities in Tunstead and Sco Ruston will be supported where they are accessible, of an appropriate scale, and meet the needs of local residents.	No LSE – does not promote development	None. This policy does not trigger the need for an appropriate assessment (HRA Stage 2) to be undertaken
Policy TS5: Local Green Space	Policy designates the recreation ground as a local green space.	No LSE – does not promote development. Protective policy.	None. This policy does not trigger the need for an appropriate assessment (HRA Stage 2) to be undertaken

Policy	Description	Likely Significant Effects (LSE)	Recommendation at Screening Stage
<p>Policy TS6: Protection and Enhancement of Public Rights of Way</p>	<p>This policy states that development proposals that include/or are adjacent to public rights of way should protect and incorporate them into the scheme.</p> <p>Also detail set out in agreement with Norfolk County Council that routes should be enhanced in an appropriate manner where possible.</p>	<p>No LSE – policy is qualitative and does not promote development</p>	<p>None. This policy does not trigger the need for an appropriate assessment (HRA Stage 2) to be undertaken</p>

Figure 24- HRA Screening Assessment

HRA Screening Conclusion

The HRA Screening Assessment concludes that no significant effects are likely to occur with regards to the integrity of European Wildlife Sites within 20km. As such a full HRA and Appropriate Assessment is not required at this point and is **screened out**.

Appendix A- Conservation Objectives of the European Sites

This appendix contains information on the European sites that are within 20km to TNP area. The site area and designated features are drawn from Natural England's website. Site conservation objectives are drawn from Natural England's website too and are only available for SACs and SPAs. Site Improvement Plans which have been published for the SPA/Ramsar Sites have been reviewed and included for information purposes.

It must be noted this information has been gathered from Natural England⁴⁸. This document should be read in conjunction with Supplementary Advice documents provided by the Statutory Body, which provides more detailed advice and information to enable the application and achievement of the Conservation Objectives.

Broadland SAC, SPA, Ramsar

Site location overview⁴⁹

A low-lying wetland complex composed of the Bure, Yare, Thurne, and Waveney river systems of the Norfolk Broads. The mosaic of wetland habitats includes open water, reedbeds, carr woodland, grazing marsh, and fen meadow, with an extensive complex of flooded medieval peat diggings. Outstanding assemblages of rare plants and invertebrates occur at the site -- amongst a rich insect fauna are nationally rare dragonflies, spiders, moths, and butterflies, and the area is a stronghold for the butterfly *Papilio machaon britannica* as well as a number of nationally rare breeding birds, including *Botaurus stellaris* and *Circus aeruginosus*. Several species of waterbirds winter there and include internationally important numbers of Bewick's swan, *Cygnus columbianus bewickii*. The region is important for recreation, tourism, agriculture, and wildlife, and there is a large conservation education centre⁵⁰.

Broadland SPA, which includes these extensions, is of European importance because: (a) It is used regularly by 1 % or more of the GB population of a species listed on Annex 1 of the Birds Directive (79/409/EEC) in any season: Bittern *Botaurus stellaris*, Bewick's Swan *Cygnus columbianus bewickii*, Whooper Swan *Cygnus cygnus cygnus*, Marsh Harrier *Circus aeruginosus*, Hen Harrier *Circus cyaneus* and Ruff *Philomachus pugnax*.

It is used regularly by 1 % or more of the biogeographic population of a regularly occurring migratory species (other than those listed on Annex 1) in any season: Wigeon *Anas penelope*, Gadwall *Anas strepera* and Shoveler *Anas clypeata*.

Qualifying features

- A021 *Botaurus stellaris*; Great bittern (Breeding)
- A037 *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding)

⁴⁸ <https://publications.naturalengland.org.uk/category/6581547796791296>

⁴⁹ <https://publications.naturalengland.org.uk/publication/5310905998901248?category=6581547796791296>

⁵⁰ <https://rsis.ramsar.org/ris/68>

- A038 *Cygnus cygnus*; Whooper swan (Non-breeding)
- A050 *Anas penelope*; Eurasian wigeon (Non-breeding)
- A051 *Anas strepera*; Gadwall (Non-breeding)
- A056 *Anas clypeata*; Northern shoveler (Non-breeding)
- A081 *Circus aeruginosus*; Eurasian marsh harrier (Breeding)
- A082 *Circus cyaneus*; Hen harrier (Non-breeding)
- A151 *Philomachus pugnax*; Ruff (Non-breeding)

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

1. The extent and distribution of the habitats of the qualifying features
2. The structure and function of the habitats of the qualifying features
3. The supporting processes on which the habitats of the qualifying features rely
4. The population of each of the qualifying features, and,
5. The distribution of the qualifying features within the site.

Key vulnerabilities

Reviewing the Site Improvement Plan (2014⁵¹) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

- Air pollution – impact of atmospheric nitrogen deposition
- Change in land management
- Change in species distributions
- Climate change
- Drainage
- Direct impact from third party
- Invasive species
- Siltation
- Inappropriate coastal management
- Inappropriate water levels
- Inappropriate ditch management
- Inappropriate scrub control
- Hydrological changes
- Public access/disturbance
- Water abstraction
- Water pollution
- Under grazing

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

⁵¹<https://publications.naturalengland.org.uk/publication/5444118129934336?category=4873023563759616>

In general, the qualifying species all rely on the sites ecosystem as a whole. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species.

Breydon Water SAC, SPA, Ramsar

Site location overview⁵²

An inland tidal estuary with extensive areas of mudflats exposed at low tide. The site is internationally important for wintering waterbirds, notably Bewick's Swan, *Cygnus columbianus bewickii*, and it supports important numbers of passage birds. Human activities include recreation, hunting, and agriculture⁵³.

Breydon Water SPA including the extended area is of European importance because: a) The site qualifies under article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of five species listed on Annex 1, in any season: Bewick's Swan *Cygnus columbianus bewickii*, Avocet *Recurvirostra avosetta*, Golden Plover *Pluvialis apricaria*, Ruff *Philomachus pugnax* and Common Tern *Sterna Hirundo*.

The site qualifies under article 4.2 of the Directive (79/409/EEC) as it is used regularly by more than 1% of the biogeographic population of a regularly occurring migratory species (other than those listed on Annex 1), in any season: Lapwing *Vanellus Vanellus*.

Qualifying features

- A037 *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding)
- A132 *Recurvirostra avosetta*; Pied avocet (Non-breeding)
- A140 *Pluvialis apricaria*; European golden plover (Non-breeding)
- A142 *Vanellus vanellus*; Northern lapwing (Non-breeding)
- A151 *Philomachus pugnax*; Ruff (Non-breeding)
- A193 *Sterna hirundo*; Common tern (Breeding)A
- Waterbird assemblage

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

6. The extent and distribution of the habitats of the qualifying features
7. The structure and function of the habitats of the qualifying features
8. The supporting processes on which the habitats of the qualifying features rely
9. The population of each of the qualifying features, and,

⁵²<https://publications.naturalengland.org.uk/publication/6376690053808128?category=6581547796791296>

⁵³ <https://rsis.ramsar.org/ris/821>

10. The distribution of the qualifying features within the site.

Key vulnerabilities

Reviewing the Site Improvement Plan (2015⁵⁴) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

- Shooting/scaring
- Change in land management
- Public access/disturbance
- Hydrological changes
- Fisheries: commercial marine and estuarine

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

In general, the qualifying species all rely on the sites ecosystem as a whole. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species.

Greater Wash SAC, SPA

Site location overview

The Wash is the largest embayment in the UK. It is connected via sediment transfer systems to the north Norfolk coast. Together, the Wash and North Norfolk Coast form one of the most important marine areas in the UK and European North Sea coast, and include extensive areas of varying, but predominantly sandy, sediments subject to a range of conditions. Communities in the intertidal include those characterised by large numbers of polychaetes, bivalve and crustaceans. Subtidal communities cover a diverse range from the shallow to the deeper parts of the embayments and include dense brittlestar beds and areas of an abundant reef-building worm ('ross worm') *Sabellaria spinulosa*.

The embayment supports a variety of mobile species, including a range of fish, otter *Lutra lutra* and common seal *Phoca vitulina*. The extensive intertidal flats provide ideal conditions for common seal breeding and hauling-out. Sandy sediments occupy most of the subtidal area, resulting in one of the largest expanses of subtidal sandbanks in the UK. The subtidal sandbanks vary in composition and include coarse sand through to mixed sediment at the mouth of the embayment. Communities present include large dense beds of brittlestars *Ophiothrix fragilis*. Species include the sand-mason worm *Lanice conchilega* and the tellin *Angulus tenuis*. Benthic communities on sandflats in the deeper, central part of the Wash are particularly diverse.

⁵⁴<https://publications.naturalengland.org.uk/publication/6364048115367936?category=4873023563759616>

The subtidal sandbanks provide important nursery grounds for young commercial fish species, including plaice *Pleuronectes platessa*, cod *Gadus morhua* and sole *Solea solea*. In the tide-swept approaches to the Wash, with a high loading of suspended sand, the relatively common tube-dwelling polychaete worm *Sabellaria spinulosa* forms areas of biogenic reef. These structures are varied in nature, and include reefs which stand up to 30 cm proud of the seabed and which extend for hundreds of metres. The reefs extend into The Wash where super-abundant *S. spinulosa* occurs and where reef-like structures such as concretions and crusts have been recorded. The reefs are diverse and productive habitats which support many associated species that would not otherwise be found in predominantly sedimentary areas. Associated motile species include large numbers of polychaetes, mysid shrimps, the pink shrimp *Pandalus montagui*, and crabs.

Sandy flats predominate in the intertidal zone with some soft mudflats in the areas sheltered by barrier beaches and islands along the north Norfolk coast. The biota includes especially large numbers of polychaetes, mysid shrimps, the pink shrimp and crabs. Salinity ranges from that of the open coast in most of the area (supporting rich invertebrate communities) to estuarine close to the rivers. Smaller, sheltered and diverse areas of intertidal sediment, with a The Wash and North Norfolk Coast SAC UK0017075 Compilation date: May 2005 Version: 1 Designation citation Page 2 of 2 rich variety of communities, including some eelgrass *Zostera* spp. beds and large shallow pools, are protected by the north Norfolk barrier islands and sand spits. The site contains the largest single area of saltmarsh in the UK and is one of the few areas in the UK where saltmarshes are generally accreting. The proportion of the total saltmarsh vegetation represented by glasswort *Salicornia* and other colonising annuals is high because of the extensive enclosure of marsh in this site and is also unusual in that it forms a pioneer community with common cord-grass *Spartina anglica*. There are large ungrazed saltmarshes on the North Norfolk Coast and traditionally grazed saltmarshes around the Wash.

Saltmarsh swards dominated by sea-lavenders *Limonium* spp. are particularly well-represented. In North Norfolk, in addition to typical lower and middle saltmarsh communities, there are transitions from upper marsh to tidal reedswamp, sand dunes (which are largely within the adjacent North Norfolk Coast SAC), shingle beaches and mud/sandflats. Mediterranean saltmarsh scrub vegetation is dominated by a shrubby cover up to 1 metre high of bushes of shrubby sea-blite *Suaeda vera* and sea-purslane *Atriplex portulacoides*, with a patchy cover of herbaceous plants and bryophytes. This scrub vegetation often forms an important feature of the upper saltmarshes, and extensive examples occur where the drift-line slopes gradually and provides a transition to dune, shingle or reclaimed sections of the coast. At a number of locations on this coast perennial glasswort *Sarcocornia perennis* forms an open mosaic with other species at the lower limit of the sea-purslane community.

Qualifying features

Qualifying habitats: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Coastal lagoons*
- Large shallow inlets and bays
- Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*). (Mediterranean saltmarsh scrub)
- Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats)
- Reefs
- *Salicornia* and other annuals colonising mud and sand. (Glasswort and other annuals colonising mud and sand)
- Sandbanks which are slightly covered by sea water all the time. (Subtidal sandbanks)

Qualifying species: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Common seal *Phoca vitulina*
- Otter *Lutra lutra*

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of qualifying species, and,
- The distribution of qualifying species within the site.

Key vulnerabilities

Reviewing the Site Improvement Plan (2015) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

- Inappropriate water levels
- Public access/disturbance
- Siltation
- Fisheries: Recreational marine and estuarine
- Invasive species
- Inappropriate coastal management
- Fisheries: Commercial marine and estuarine

- Predation

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

In general, the qualifying species all rely on the sites ecosystem as a whole and areas of freshwater for waterfowl. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species. The diet of qualifying species includes

- Common seal *Phoca vitulina* - known to eat a wide variety of fish, including herring, sand eels, whiting and flatfish. Shrimps and squid are also sometimes eaten.
- Otter *Lutra lutra* - fish, amphibians, birds, eggs, insects.

Great Yarmouth North Denes SAC, SPA

Site location overview⁵⁵

The Great Yarmouth North Denes contains two component areas, the Great Yarmouth North Denes actively accreting low dune system and beach, together with the beach and foredune ridge at Winterton-Horsey Dunes. The two component areas are linked, due to the high mobility of little terns, and to the dynamic nature of the beach shapes which influences suitability for breeding. The boundary at the Great Yarmouth North Denes component encompasses the dune system and beach down to the Mean Low Water Mark and at the Winterton-Horsey component, the inland boundary follows the line of hard defences and foredune ridge, the seaward boundary follows the Mean Low Water Mark. The Great Yarmouth North Denes proposed SPA qualifies under Article 4.1, by supporting a nationally important breeding population of little tern *Sterna albifrons*, an Annex 1 species. A total of 277 pairs was recorded breeding in 1991, representing 1% of the EEC breeding population and 11.5% of the British breeding population.

Qualifying features

Qualifying Features: A195 *Sterna albifrons*; Little tern (Breeding)

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

11. The extent and distribution of the habitats of the qualifying features
12. The structure and function of the habitats of the qualifying features
13. The supporting processes on which the habitats of the qualifying features rely
14. The population of each of the qualifying features, and,

⁵⁵<https://publications.naturalengland.org.uk/publication/5165293655556096?category=6581547796791296>

15. The distribution of the qualifying features within the site.

Key vulnerabilities

Reviewing the Site Improvement Plan (2014) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

In general, the qualifying species all rely on the sites ecosystem as a whole. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species.

Norfolk Valley Fens SAC

Site location overview

This site comprises a series of valley-head spring-fed fens. Such spring-fed flush fens are very rare in the lowlands. The spring-heads are dominated by the small sedge fen type, mainly referable to black-bog-rush – blunt-flowered rush (*Schoenus nigricans* – *Juncus subnodulosus*) mire, but there are transitions to reedswamp and other fen and wet grassland types. The individual fens vary in their structure according to intensity of management and provide a wide range of variation. There is a rich flora associated with these fens, including species such as grass-of-Parnassus *Parnassia palustris*, common butterwort *Pinguicula vulgaris*, marsh helleborine *Epipactis palustris* and narrow-leaved marsh-orchid *Dactylorhiza traunsteineri*.

In places the calcareous fens grade into acidic flush communities on the valley sides. Purple moor-grass *Molinia caerulea* is often dominant with a variety of mosses including thick carpets of bog-moss *Sphagnum* spp. Marshy grassland may be present on drier ground and purple moor-grass is again usually dominant but cross-leaved heath *Erica tetralix* can be frequent. Alder *Alnus glutinosa* forms carr woodland in places by streams. Wet and dry heaths and acid, neutral and calcareous grassland surround the mires.

Within the Norfolk Valley Fens there are a number of marginal fens associated with pingos – pools that formed in hollows left when large blocks of ice melted at the end of the last Ice Age. These are very ancient wetlands and several support strong populations of Desmoulin's whorl snail *Vertigo moulinsiana* as part of a rich assemblage of rare and scarce species in standing water habitat. At Flordon Common a strong population of narrow-mouthed whorl snail *Vertigo angustior* occurs in flushed grassland with yellow iris *Iris pseudacorus*.

Qualifying features

Qualifying habitats: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Alkaline fens. (Calcium-rich springwater-fed fens)
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). (Alder woodland on floodplains)*

Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*. (Calcium-rich fen dominated by great fen sedge (saw sedge))*

- European dry heaths
- *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*). (Purple moor-grass meadows)
- Northern Atlantic wet heaths with *Erica tetralix*. (Wet heathland with cross-leaved heath)
- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*FestucoBrometalia*). (Dry grasslands and scrublands on chalk or limestone)

Qualifying species: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Narrow-mouthed whorl snail *Vertigo angustior*
- Desmoulin's whorl snail *Vertigo moulinsiana*

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats, and the habitats of qualifying species rely
- The populations of qualifying species, and,
- The distribution of qualifying species within the site

Key vulnerabilities

Reviewing the Site Improvement Plan (2014) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

- Air Pollution
- Change in land management and species distributions
- Inappropriate cutting/mowing, scrub control and water levels
- Hydrological changes
- Invasive Species
- Water Pollution

- Water Abstraction
- Under grazing and over grazing

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

In general, the qualifying species all rely on the sites ecosystem as a whole. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species.

The Broads SAC

Site location overview

The Broads in East Anglia contain several examples of naturally nutrient-rich lakes. Although artificial, having been created by peat digging in medieval times, these lakes and the ditches in areas of fen and drained marshlands support relict vegetation of the original Fenland flora, and collectively this site contains one of the richest assemblages of rare and local aquatic species in the UK. The stonewort – pondweed – water-milfoil – water-lily (Characeae – Potamogeton – Myriophyllum – Nuphar) associations are well-represented, as are club-rush – common reed Scirpo – Phragmitetum associations. The dyke (ditch) systems support vegetation characterised by water-soldier Stratiotes aloides, whorled water-milfoil Myriophyllum verticillatum and broad-leaved pondweed Potamogeton natans as well as being a stronghold of little whirlpool ram’s-horn snail Anisus vorticulus and Desmoulin’s whorl snail Vertigo moulinsiana in East Anglia. The range of wetlands and associated habitats also provides suitable conditions for otters Lutra lutra. The Broads is the richest area for stoneworts (charophytes) in Britain. The core of this interest is the Thurne Broads and particularly Hickling Broad, a large shallow brackish lake. Within the Broads examples of Chara vegetation are also found within fen pools (turf ponds) and fen and marsh ditch systems.

The Broads supports a number of rare and local charophyte species, including Chara aspera, C. baltica, C. connivens, C. contraria, C. curta, C. intermedia, C. pedunculata, Nitella mucronata, Nitellopsis obtusa, Tolypella glomerata and T. intricata.

The complex of sites contains the largest blocks of alder Alnus glutinosa wood in England. Within the complex complete successional sequences occur from open water through reedswamp to alder woodland, which has developed on fen peat. There is a correspondingly wide range of flora, including uncommon species such as marsh fern Thelypteris palustris. This site contains the largest example of calcareous fens in the UK. The great fen-sedge Cladium mariscus habitat occurs in a diverse set of conditions that maintain its speciesrichness, including small sedge mires, and areas where great fen-sedge occurs at the limits of its ecological range. The habitat type forms large-scale mosaics with other fen types, fenmeadows (with purple moor-grass Moilinia caerulea), open water and woodland, and contains important associated plants such as fen orchid Liparis loeselii, marsh helleborine Epipactis palustris, lesser tussock-sedge Carex diandra, slender sedge C. lasiocarpa and fibrous tussock-sedge C.

appropinquata. There are also areas of short sedge fen (both black bog-rush – blunt-flowered rush *Schoenus nigricans* – Juncus subnodulosus mire and bottle sedge – moss *Carex rostrata* – Calliergon cuspidatum/giganteum mire), which in places form a mosaic with common reed – milk-parsley *Phragmites australis* – *Peucedanum palustris* fen. The Broads also contain examples of transition mire, that are relatively small, having developed in re-veg

Qualifying features

Qualifying habitats: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Alkaline fens. (Calcium-rich spring water-fed fens)
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae). (Alder woodland on floodplains)*
- Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*. (Calcium-rich fen dominated by great fen sedge (saw sedge))*
- Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. (Calcium-rich nutrient-poor lakes, lochs and pools)
- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*). (Purple moor-grass meadows)
- Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation. (Naturally nutrient-rich lakes or lochs which are often dominated by pondweed)
- Transition mires and quaking bogs. (Very wet mires often identified by an unstable ‘quaking’ surface)

Qualifying species: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Desmoulin’s whorl-snail *Vertigo moulinsiana*
- Little whirlpool ram’s-horn snail *Anisus vorticulus*
- Fen orchid *Liparis loeselii*
- Otter *Lutra lutra*

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

16. The extent and distribution of qualifying natural habitats and habitats of qualifying species
17. The structure and function (including typical species) of qualifying natural habitats
18. The structure and function of the habitats of qualifying species
19. The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
20. The populations of qualifying species, and,
21. The distribution of qualifying species within the site.

Key vulnerabilities

Reviewing the Site Improvement Plan (2014) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

In general, the qualifying species all rely on the sites ecosystem as a whole. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species.

Paston Great Barn SAC

Site location overview⁵⁶

Paston Great Barn is the only known example of a maternity roost of barbastelle bats *Barbastella barbastellus* in a building. The Barn is a 16th century thatched barn with associated outbuildings. A maternity colony of barbastelles utilises a range of cracks and crevices in the roof timbers for roosting.

Qualifying features

Qualifying species: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Barbastelle bat *Barbastella barbastellus*

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

1. The extent and distribution of the habitats of qualifying species
2. The structure and function of the habitats of qualifying species
3. The supporting processes on which the habitats of qualifying species rely
4. The populations of qualifying species, and,
5. The distribution of qualifying species within the site.

Key vulnerabilities

Reviewing the Site Improvement Plan (2015⁵⁷) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

- Change to site conditions
- Wildlife/arson

⁵⁶<https://publications.naturalengland.org.uk/publication/6035066643808256?category=6581547796791296>

⁵⁷<https://publications.naturalengland.org.uk/publication/4678040692981760?category=4873023563759616>

- Offsite habitat availability/management
- Public access/disturbance
- Predation

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

In general, the qualifying species all rely on the sites ecosystem as a whole. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species.

Winteron-Horsey Dunes SAC

Site location overview ⁵⁸

This site consists of an extensive dune system supporting acidic plant communities. It contains well-developed areas of dune heath, slacks and dune grassland merging into grazing marsh and downy birch *Betula pubescens* woodland. The seaward edge of the dunes is well vegetated with marram *Ammophila arenaria* and lymegrass *Leymus arenarius*. The older, grey dunes support a more diverse flora with frequent sand sedge *Carex arenaria*, sheep's-fescue *Festuca ovina*, common polypody *Polypodium vulgare* and narrow buckler-fern *Dryopteris carthusiana*. Three rare grasses are present in abundance; grey hair-grass *Corynephorus canescens*, rush-leaved fescue *Festuca juncifolia* and purple marram *X Calammophila baltica*. A notable assemblage of bryophytes and lichens occurs on these acidic dunes. Dune heath has developed on the landward side with heather *Calluna vulgaris*, bell heather *Erica cinerea*, cross-leaved heath *Erica tetralix* and bog-moss *Sphagnum* spp in the damper hollows. Because of their acidic soils, the dune slacks support swamp and mire communities with notable species including royal fern *Osmunda regalis* and common wintergreen *Pyrola rotundifolia*. In addition to small areas of typical dune slack vegetation characterised by creeping willow *Salix repens* ssp. *argentea* with the moss *Calliergon cuspidatum* and Yorkshire-fog *Holcus lanatus*.

Qualifying features

Qualifying habitats: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) (coastal dune heathland).*
- Embryonic shifting dunes.
- Humid dune slacks.
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) (shifting dunes with marram).

Conservation Objectives

⁵⁸<https://publications.naturalengland.org.uk/publication/5518326646177792?category=6581547796791296>

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

22. The extent and distribution of the qualifying natural habitats
23. The structure and function (including typical species) of the qualifying natural habitats, and,
24. The supporting processes on which the qualifying natural habitats rely

Key vulnerabilities

Reviewing the Site Improvement Plan (2014⁵⁹) there were a number of prioritised issues for the site and the features they affect. Measures were set out to address these. These can be considered as key vulnerabilities and are listed below:

- Air pollution – impact of atmospheric nitrogen deposition
- Coastal squeeze (E.g. shifting dunes)
- Invasive species
- Inappropriate coastal management
- Inappropriate scrub control
- Inappropriate pest control
- Hydrological changes
- Public access/disturbance
- Under grazing

Non-qualifying habitats and/or species in which the qualifying habitats and/or species depend

In general, the qualifying species all rely on the sites ecosystem as a whole. The species will rely on the maintenance of populations of species in which they feed on and potentially off-site habitat foraging for these species.

⁵⁹<https://publications.naturalengland.org.uk/publication/6708502814785536?category=4873023563759616>