

Habitats Regulations Assessment of the Local Plan for the Broads

Preferred Options Habitats Regulations Assessment Report

February 2024



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

Local Plan for the Broads: Review Plan Period 2021 to 2041 Preferred Options Consultation

Habitats Regulations Assessment

LC-785	Document Control Box
Client	Broads Authority
Report Title	Preferred Options Habitats Regulations Assessment Report
Status	Final
Filename	LC-785_Local Plan for the Broads_HRA_9_260224SC.docx
Date	February 2024
Author	SC/MB
Reviewed	SC
Approved	ND

Front Cover: Otter (*Lutra lutra*)

Contents

1	Introduction.....	1
1.1	Purpose of this report.....	1
1.2	The Broads Authority	1
1.3	Local Plan review	3
1.4	Habitats Regulations Assessment	4
1.5	Previous HRA work	5
1.6	HRA of the preferred options	5
2	Methodology.....	6
2.1	Overview.....	6
2.2	Stage 1: Screening for likely significant effects	7
2.3	Stage 2: Appropriate Assessment and the Integrity Test	9
2.4	Dealing with uncertainty	9
2.5	The Precautionary Principle.....	10
3	Scoping of threats and pressures at habitats sites	11
3.1	Introduction	11
3.2	Identification of habitats sites	11
3.3	Scoping impact pathways	12
3.4	Air Quality	13
3.5	Water quality and water quantity	17
3.6	Recreational pressure.....	25
3.7	Urbanisation effects	27
3.8	Habitats site threats and pressures.....	28
4	Screening of the Preferred Options Local Plan.....	33
4.1	Introduction	33
4.2	Screening.....	33
4.3	Screening conclusion.....	35
5	Preliminary Air Quality Appropriate Assessment	36
5.1	Introduction	36
5.2	Air quality impacts	36
5.3	Baseline air quality information	37
5.4	Preliminary Appropriate Assessment	38
6	Preliminary Water Appropriate Assessment.....	42
6.1	Introduction	42
6.2	Baseline information.....	42
6.3	Preliminary Appropriate Assessment	43
7	Preliminary Recreation and Urbanisation Appropriate Assessment	47
7.1	Introduction	47
7.2	Baseline information.....	47
7.3	Preliminary Appropriate Assessment	48
8	Next Steps.....	55
8.1	Conclusions.....	55
8.2	Next steps.....	55

Tables

Table 2.1: Screening evaluation and reasoning categories from Part F of the DTA Handbook	8
Table 3.1: Atmospheric pollution impact pathways to habitats sites.....	16
Table 3.2: Hydrologically sensitive habitats sites within ALS catchment areas.....	18
Table 3.3: Review of hydrological impact pathways to habitats sites within the influence of the Local Plan	23
Table 3.4: Potential impact pathways from the Local Plan at each habitats site.	29
Table 4.1: Policies of the Local Plan screened into the HRA process (summarised from Appendix B)	34

Figures

Figure 1.1: The Broads Authority executive area	2
Figure 1.2: Stages in the local plan making process.....	3
Figure 2.1: Stages in the HRA process.....	6
Figure 3.1: Water catchment baseline information.....	20
Figure 3.2: Nutrient Neutrality Strategy Area, Defra Spatial Data Science	22
Figure 3.3: SPAs for consideration in the HRA process.....	30
Figure 3.4: Ramsar sites for consideration in the HRA process.....	31
Figure 3.5: SACs for consideration in the HRA process.....	32
Figure 5.1: Pie chart to illustrate local contributions to nitrogen deposition.....	39
Figure 7.1: Preferred Options Local Plan allocations.....	50

Appendices

Appendix A	Habitats site conservation objectives, qualifying features, threats and pressures
Appendix B	Preliminary screening of preferred options consultation
Appendix C	Baseline air quality information (Source: APIS)

Acronyms & Abbreviations

AADT	Annual Average Daily Traffic
ALS	Abstraction License Strategy
APIS	Air Pollution Information System
AWS	Anglian Water Services
BLP	Broads Local Plan
CAMS	Catchment Abstraction Strategy
CIEEM	Chartered Institute of Ecology and Environmental Management
CJEU	Court of Justice of the European Union
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley and Associates
GI	Green Infrastructure
HDV	Heavy Duty Vehicle
HRA	Habitats Regulations Assessment
IAQM	Institute of Air Quality Management
IRZ	Impact Risk Zone
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
LPA	Local Planning Authority
LSE	Likely Significant Effect
LTP	Local Transport Plan
NBP	Norfolk Biodiversity Partnership
NSPF	Norfolk Strategic Planning Framework
RAMS	Recreational impact Avoidance and Mitigation Strategy
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SANG	Suitable Alternative Natural Greenspace
SIP	Site Improvement Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TraC	Transitional and Coastal
WFD	Water Framework Directive
WRC	Wastewater Recycling Centre
WRMP	Water Resource Management Plan
WRZ	Water Resource Zones
WwTW	Wastewater Treatment Works
ZOI	Zone of Influence

1 Introduction

1.1 Purpose of this report

- 1.1.1 This report presents the findings of a Habitats Regulations Assessment which has been undertaken to inform the preferred options consultation stage of the emerging Broads Local Plan 2021-2024 (hereafter referred to as 'Local Plan').

1.2 The Broads Authority

- 1.2.1 The Broads Authority is a Special Statutory Authority established under the 1988 Norfolk and Suffolk Broads Act. The Authority has a statutory duty to manage the Broads for the following three purposes:

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

- 1.2.2 The designated Broads Authority executive area covers parts of Norfolk and North Suffolk and extends around the floodplains and lower reaches of the main rivers which flow through the area (Bure, Yare and Waveney) and their tributaries (Thurne, Ant, Wensum and Chet) as illustrated in **Figure 1.1**.

- 1.2.3 The Executive Area includes areas of Broadland District, South Norfolk District, North Norfolk District, Great Yarmouth Borough, Norwich City, and East Suffolk Council. The councils for these areas do not have planning powers in the Broads area but retain all other local authority powers and responsibilities. Norfolk County Council and Suffolk County Council are the county planning authority for their respective part of the Broads, with responsibilities that include minerals and waste planning. These authorities are also the Lead Local Flood Authority in their respective geographic jurisdictions.



Figure 1.1: The Broads Authority executive area¹

¹ Broads Authority (2023) Member's Handbook. Broads Authority executive area.

1.3 Local Plan review

- 1.3.1 The Broads Authority is the local planning authority (LPA) for the Broads and is responsible for producing the Local Plan for the Broads. The purpose of a local plan is to guide development in the area and is used in determining planning applications. Local plans should be reviewed to assess whether they need updating at least once every five years². The existing local plan³ was adopted in 2019 and covers the period up to 2036.
- 1.3.2 The adopted local plan commits to a review 18 months after adoption. As such, the Authority is currently undertaking a review of the local plan which aims to update policies in light of changes to the National Planning Policy Framework (NPPF)⁴ and address issues such as climate change.
- 1.3.3 The first stage of the local plan review was the Issues and Options consultation⁵ which aimed to obtain views on key issues and current policies. The Issues and Options consultation took place between October and December 2022. The Authority is now consulting on the Preferred Options Consultation at Regulation 18⁶ which has been informed by the output of the Issues and Options consultation (**Figure 1.2**). The outputs from the Preferred Options consultation will feed into the Publication version of the Local Plan at Regulation 19.

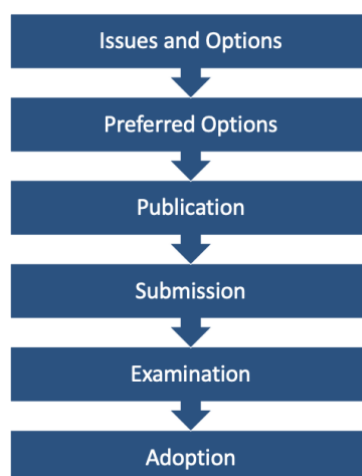


Figure 1.2: Stages in the local plan making process

² Department for Levelling Up, Housing and Communities (2023). Para 33 of the National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Date Accessed: 21/02/24].

³ The Broads Authority (2019) Local Plan for the Broads. Available at: <https://www.broads-authority.gov.uk/planning/planning-policies/development> [Date Accessed: 08/02/24].

⁴ Department for Levelling Up, Housing and Communities (2023). National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Date Accessed: 08/02/24].

⁵ The Broads Authority (2022) The Local Plan for the Broads Review Issues and Options Consultation July 2022. Available at: <https://www.broads-authority.gov.uk/about-us/how-we-work/transparency/consultations> [Date Accessed: 12/02/24].

⁶ The Broads Authority (March 2024) The Local Plan for the Broads: Review Plan period 2021 to 2041 Preferred Options consultation.

1.4 Habitats Regulations Assessment

1.4.1 The application of the Habitats Regulations Assessment (HRA) process to land-use plans is a requirement of the Conservation of Habitats and Species Regulations 2017 (as amended)⁷. HRA applies to plans and projects, including all Local Development Documents in England and Wales.

1.4.2 Where a plan is likely to have a significant effect on a European site (either alone or in combination) and is not directly connected with or necessary to the management of the habitats site, Regulation 105 of the Habitats Regulations requires that the plan-making authority must, before the plan is given effect, make an Appropriate Assessment (AA) of the implications for the site in view of that site's conservation objectives. These tests are referred to collectively as an HRA.

1.4.3 The Habitats Regulations⁸ provide a definition of a European site at Regulation 8. These sites include Special Areas of Conservation (SAC), Sites of Community Importance, Special Protection Areas (SPA) and sites proposed to the European Commission in accordance with Article 4(1) of the Habitats Directive. In addition, planning policy in England and Wales recommends that the following sites should also be given the same level of protection as a European site⁹. European sites together with sites set out in national policy (listed below) are referred to in England and Wales as a habitats site¹⁰.

- A potential SPA (pSPA)
- A possible / proposed SAC (pSAC)
- Listed and proposed Ramsar sites (wetland of international importance)
- In England, sites identified or required as compensation measures for adverse effects on statutory habitats sites, pSPA, pSAC and listed or proposed Ramsar sites

⁷ The Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents> [Date Accessed: 08/02/24] as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573> [Date Accessed: 08/02/24].

⁸ Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents> [Date Accessed 08/02/24] as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573> [Date Accessed: 08/02/24].

⁹ Department of Levelling Up, Housing and Communities (2023). National Planning Policy Framework. Para 187. Available at: https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf [Date Accessed: 08/02/24].

¹⁰ Habitats site: Any site which would be included within the definition at Regulation 8 of the Conservation of Habitats and Species Regulations 2017 for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites. Ministry of Housing, Communities & Local Government (2021). National Planning Policy Framework. Para 181. Available in Annex 2 (Glossary) at: https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf [Date Accessed: 08/02/24].

1.5 Previous HRA work

- 1.5.1 The Issues and Options consultation (2022) of the Local Plan review was supported by an HRA (the Preliminary HRA Scoping Report), which included a preliminary screening of issues and options and made recommendations to inform policy wording¹¹. It concluded potential LSEs at a number of habitats sites from air quality, hydrology and recreational disturbance, urbanisation effects and habitat loss / fragmentation impact pathways.

1.6 HRA of the preferred options

- 1.6.1 HRA is an iterative process, designed to run alongside and inform the plan making process to ensure adverse impacts on habitats sites are avoided in the first instance through strategic planning of options or, where this is not possible, effective mitigation which is designed to ensure no adverse impact on site integrity.
- 1.6.2 The purpose of this HRA report is to continue to inform the development of the Local Plan at the Regulation 18 stage of the plan-making process, building on the Issues and Options HRA Preliminary HRA Scoping Report. It provides information and results of an HRA screening process which has been applied to proposed allocations and policies which comprise the Preferred Options consultation exercise. Where possible, preliminary AA of effects has been prepared. The report also sets out further stages of HRA work that will be required at future stages of the Plan's development.
- 1.6.3 This HRA report has been prepared in accordance with the Habitats Regulations and has been informed by the following guidance:
- Planning Practice Guidance: Appropriate Assessment¹²; and
 - The Habitats Regulations Assessment Handbook - David Tyldesley and Associates (referred to hereafter as the DTA Handbook), 2013 (in particular Part F: 'Practical Guidance for the Assessment of Plans under the Regulations')¹³.

¹¹ Lepus Consulting. July 2022. Habitats Regulations Assessment of the Local Plan for the Broads. Issues and Options Consultation. Preliminary HRA Scoping Report.

¹² Department of Levelling Up, Housing and Communities (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

¹³ Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (October) (2018) edition UK: DTA Publications Limited. Available at: www.dtapublications.co.uk [Date accessed: 12/02/24].

2 Methodology

2.1 Overview

2.1.1 HRA is a rigorous precautionary process centred around the conservation objectives of a habitats site's qualifying interests. It is intended to ensure that habitats sites are protected from impacts that could adversely affect their integrity. A step-by-step guide to the methodology followed for the HRA is illustrated in **Figure 2.1**. This HRA report provides outputs from Stage 1 and Stage 2 of the HRA process.

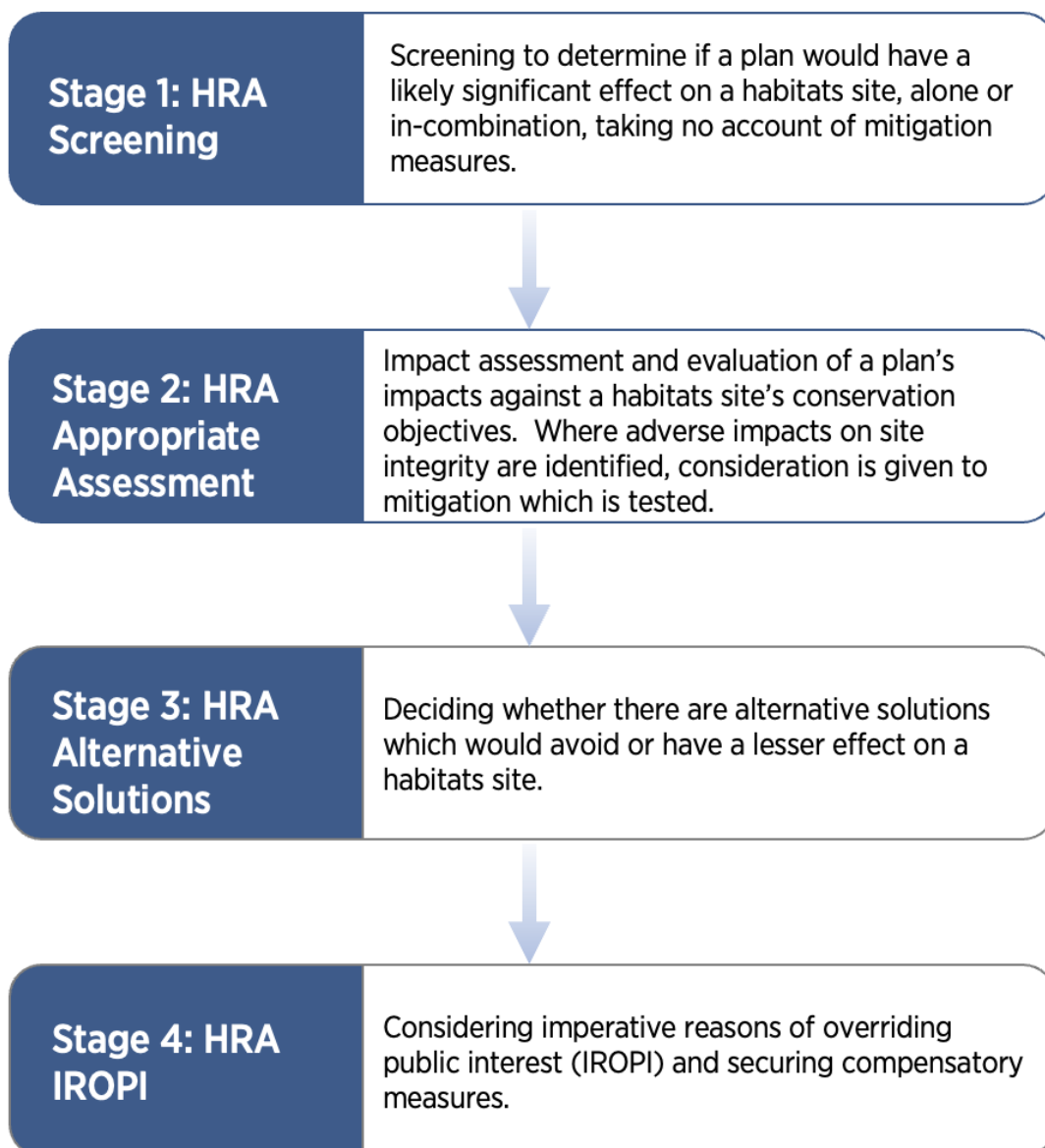


Figure 2.1: Stages in the HRA process¹⁴

¹⁴ Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (October) (2018) edition UK: DTA Publications Limited. Available at: www.dtapublications.co.uk [Date accessed: 12/02/24].

2.2 Stage 1: Screening for likely significant effects

- 2.2.1 The first stage in the HRA process comprises the screening stage (see **Figure 2.1**) The purpose of the screening process is to firstly determine whether a plan is either (1) exempt (because it is directly connected with or necessary to the management of a habitats site), (2) whether it can be excluded (because it is not a plan), or (3) eliminated (because there would be no conceivable effects), from the HRA process. If none of these conditions apply, it is next necessary to identify whether there are any aspects of the plan which may lead to LSEs at a habitats site, either alone or in combination with other plans or projects.
- 2.2.2 Where elements of the Local Plan will not result in an LSE at a habitats site (alone or in-combination) these are screened out and are not considered in further detail in the process. Where LSEs are identified, the HRA process moves to an AA of LSEs (see Stage 2 in **Figure 2.1**).
- 2.2.3 The Issues and Options HRA Preliminary Scoping Report identified LSEs at the following habitats sites. This exercise has been updated in this report to address changes to the emerging Local Plan since the Issues and Options consultation.
- Benacre to Easton Barents SPA
 - Breydon Water SPA
 - Breydon Water Ramsar
 - Broads SAC
 - Broadlands Ramsar
 - Broadlands SPA
 - Greater Wash SPA
 - Great Yarmouth North Denes SPA
 - North Norfolk Coast Ramsar
 - North Norfolk Coast SAC
 - North Norfolk Coast SPA
 - Norfolk Valley Fens SAC
 - Outer Thames Estuary SPA
 - Southern North Sea SAC
 - The Wash and North Norfolk Coast SAC
 - Winterton-Horsey Dunes SAC
- 2.2.4 Screening evaluation codes have been used to summarise whether or LSEs will occur alone or in-combination. The codes are subsequently used to inform the formal screening decision (**Column 2, Table 2.1**). The screening results are presented in **Chapter 4** of this report.

Table 2.1: Screening evaluation and reasoning categories from Part F of the DTA Handbook

Screening evaluation and reasoning categories from Chapter F of the Habitats Regulations Assessment Handbook (DTA Publications, 2013):	Screen in / Screen out
A. General statements of policy / general aspirations	Screen Out
B. Policies listing general criteria for testing the acceptability / sustainability of proposals	Screen Out
C. Proposal referred to but not proposed by the plan	Screen Out
D. General plan-wide environmental protection / designated site safeguarding / threshold policies.	Screen Out
E. Policies or proposals that steer change in such a way as to protect European sites from adverse effects	Screen Out
F. Policies or proposals that cannot lead to development or other change	Screen Out
G. Policies or proposals that could not have any conceivable or adverse effect on a site	Screen Out
H. Policies or proposals the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects)	Screen Out
I. Policies or proposals with a Likely Significant Effect on a site alone	Screen In
J. Policies or proposals unlikely to have a significant effect alone	Screen Out
K. Policies or proposals unlikely to have a significant effect either alone or in combination	Screen Out
L. Policies or proposals which might be likely to have a significant effect in combination	Screen In
M. Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a European site.	Screen In

2.2.5 Where local plan proposals have no LSE alone, the screening assessment considers potential in-combination LSEs. Plans and projects which are considered to be of most relevance to the in-combination assessment of the Local Plan include those that have similar impact pathways. These include those plans and projects that have the potential to increase development in the HRA study area. In addition, other plans and projects with the potential to increase traffic across the study area which may act in-combination with the Local Plan, such as transport, waste and mineral plans and projects, have also been taken into consideration. Plans which allocate water resources or are likely to influence water quality in the study area have been considered. Finally, neighbouring authority development plans which may increase development-related public access and disturbance pressures at a habitats site have also been considered. The in-combination assessment is compliant with the Wealden Judgement¹⁵.

¹⁵ Wealden District Council & Lewes District Council before Mr Justice Jay. Available at: <http://www.bailii.org/ew/cases/EWHC/Admin/2017/351.html> [Date Accessed: 12/02/24].

2.2.6 The European Court’s Judgement on the interpretation of the Habitats Directive in the case of People Over Wind and Sweetman vs Coillte Teoranta (Case C-323/17¹⁶) determined that mitigation measures are only permitted to be considered as part of an AA. The HRA screening process has therefore taken no account of incorporated mitigation or avoidance measures that are intended to avoid or reduce harmful effects on a habitats site when assessing the LSE of the Local Plan. These are measures, which if removed (i.e. should they no longer be required for the benefit of a habitats site), would still allow the lawful and practical implementation of a Local Plan.

2.3 Stage 2: Appropriate Assessment and the Integrity Test

2.3.1 Stage 2 of the HRA process comprises the AA and the Integrity Test. The purpose of the AA is to undertake an assessment of the implications of a plan for a habitats site considering its conservation objectives¹⁷.

2.3.2 As part of this process, decision makers should take account of the potential consequences of no action, the uncertainties inherent in scientific evaluation and they should consult interested parties on the possible ways of managing the risk, for instance, through the adoption of mitigation measures. Mitigation measures should aim to avoid, minimise, or reduce significant effects on habitats sites. Mitigation measures may take the form of policies within the Local Plan, or mitigation proposed through other plans or regulatory mechanisms. All mitigation measures must be deliverable and able to mitigate the adverse effects for which they are targeted.

2.3.3 The AA aims to present information in respect of all aspects of the Local Plan and ways in which it could, either alone or in-combination with other plans and projects, impact a habitats site.

2.3.4 The Broads Authority (as the Competent Authority) must then ascertain, based on the findings of the AA, whether the Local Plan will adversely affect the integrity of a habitats site either alone or in-combination with other plans and projects. This is referred to as the Integrity Test.

2.4 Dealing with uncertainty

2.4.1 Uncertainty is an inherent characteristic of an HRA, and decisions can be made only on currently available and relevant information. This concept is reinforced through the ‘Waddenzee’ ruling¹⁸:

¹⁶ InfoCuria (2018) Case C-323/17. Available at:

<http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN> [Date Accessed: 16/02/24].

¹⁷ Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

¹⁸ EC Case C-127/02 Reference for a Preliminary Ruling ‘Waddenzee’ 7th September 2004 Advocate General’s Opinion (para 107).

- 2.4.2 “However, the necessary certainty cannot be construed as meaning absolute certainty since that is almost impossible to attain. Instead, it is clear from the second sentence of Article 6(3) of the Habitats Directive that the competent authorities must take a decision having assessed all the relevant information which is set out in particular in the AA. The conclusion of this assessment is, of necessity, subjective in nature. Therefore, the competent authorities can, from their point of view, be certain that there will be no adverse effects even though, from an objective point of view, there is no absolute certainty.”

2.5 The Precautionary Principle

- 2.5.1 The HRA process is characterised by the Precautionary Principle: “If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with protection normally afforded to these within the European Community, the Precautionary Principle is triggered.”¹⁹ The Precautionary Principle is embedded in the Integrity Test.

¹⁹ North Marston Parish Council (2021) North Marston Neighbourhood Plan SEA and HRA Screening Options by Buckinghamshire Council for consultation in accordance with the European Directive 2001/42/EC and associated Environmental Assessment of Plans and Programmes Regulation 2004 and European Directive 92/43/EEC and Regulation 106 of The Conservation of Habitats and Species Regulation 2017. Final Screening Outcome. Available at: https://northmarston.org/?page_id=2028 [Date Accessed:09/01/24].

3 Scoping of threats and pressures at habitats sites

3.1 Introduction

- 3.1.1 An important initial stage in the screening process is gathering information on habitats sites which may be affected by the Local Plan. This is informally known as scoping and provides an understanding of potential impact pathways from the Local Plan and connections to habitats sites and their vulnerabilities. This chapter therefore scopes threats and pressures at habitats sites. This information is then used to inform the screening assessment (**Chapter 4**).

3.2 Identification of habitats sites

- 3.2.1 Each habitats site has its own intrinsic qualities, besides the habitats or species for which it has been designated, that enables the site to support its particular ecosystems. An important aspect of this is that the ecological integrity of each site can be vulnerable to change from natural and human induced activities in the surrounding environment (known as pressures and threats). For example, sites can be affected by land use plans in a number of different ways, including the direct land take of new development, the type of use the land will be put to (for example, an extractive or noise-emitting use), the pollution / threat a development generates (air pollution, water pollution or increased recreational pressure), and the resources used (for example water abstraction).
- 3.2.2 An intrinsic quality of any habitats site is its functionality at the landscape ecology scale. This refers to how the site interacts with its immediate surroundings as well as the wider area. This is particularly the case where there is potential for developments resulting from a plan to generate water or air-borne pollutants, use water resources or otherwise affect water levels. Adverse effects may also occur via impacts to mobile species occurring outside a designated site boundary, but which are qualifying features of the site. For example, there may be effects on protected birds, bats and fish which use land outside a designated site for foraging, feeding, roosting, breeding or other activities.
- 3.2.3 There is no guidance that defines the study area for inclusion in an HRA. Planning Practice Guidance for AA (listed above) indicates that: "The scope and content of an appropriate assessment will depend on the nature, location, duration and scale of the proposed plan or project and the interest features of the relevant site. 'Appropriate' is not a technical term. It indicates that an assessment needs to be proportionate and sufficient to support the task of the competent authority in determining whether the plan or project will adversely affect the integrity of the site".
- 3.2.4 The Broads Authority Executive Area forms the geographic extent of the Local Plan (**Figure 1.1**). However, impacts at habitats sites often take place outside administrative boundaries, for instance where residents travel to tourist destinations beyond an administrative area, or where habitats sites are hydrologically connected to the Plan area.

3.3 Scoping impact pathways

3.3.1 The Issues and Options HRA provided an evaluation of impact pathways by applying a 'source-pathway-effect' model to determine which habitats sites would form the focus of the HRA. This recognised that different impact pathways (for instance air quality, water and recreational pressure) may have a different geographical coverage. It drew on data held by the JNCC and Natural England on Natura 2000 Data Forms, Ramsar Information Sheets, Site Improvement Plans (SIPs) and Natural England's Supplementary advice notices which are summarised in Appendix A.

3.3.2 The Issues and Options HRA identified the following potential impact pathways within the scope of influence of the Local Plan. This includes consideration of potential impacts upon both designated sites and areas of functionally linked habitat outside the designation boundary.

- Air pollution: Land use planning has the potential to increase atmospheric emissions of pollutants to the air. These can result in adverse effects at habitats sites such as eutrophication (nitrogen), acidification (nitrogen and sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides)²⁰;
- Water resources and water levels: Urban development can change run off rates from urbanised areas to habitats sites or watercourses which run through them. An increase in housing provision can also influence supply and demand for water within the region which may impact water levels;
- Water quality: Surface water run-off from urban areas has the potential to reduce the quality of water entering a catchment. Water quality may also be reduced through point source effluent discharges from new development at Wastewater Treatment Works (WwTWs) and other controlled discharge sources. Changes in water quality also has the potential to affect functionally linked land²¹ (land outside a designated site boundary);
- Recreational pressure: Increased development has the potential to increase recreational pressure upon habitats sites which are accessible to the public;
- Urbanisation: Urban development has the potential to result in disturbing activities (such as noise, lighting and visual disturbance). Disturbance effects may impact upon habitats sites themselves and also their qualifying features when outside a designated site boundary;
- Habitat loss and fragmentation: Land use planning has the potential to lead to direct loss and / or degradation at habitats sites through the mechanisms described above, reduction in air quality, hydrology impacts and public access and disturbance

²⁰ APIS (2016) Ecosystem Services and air pollution impacts. Available at: <http://www.apis.ac.uk/ecosystem-services-and-air-pollution-impacts> [Date Accessed: 12/02/24].

²¹ "The term 'functional linkage' refers to the role or 'function' that land or sea beyond the boundary of a Habitats 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 Habitats site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status". Source: Natural England. 2016. Commissioned Report. NECR207. 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.

(increased recreation and urbanisation impacts). It also has the potential to result in impacts upon qualifying features (for instance species of bird) when located outside a designation boundary, known as functionally linked habitat²². Habitats sites located within and immediately adjacent to the Broads Authority executive area which are designated for mobile species are considered potentially vulnerable to such impacts. The HRA will therefore also consider effects upon functionally linked habitat or mobile species within the relevant topic assessments i.e. the air quality, water, recreation and urbanisation assessments.

3.3.3 For the purpose of this Preferred Options HRA consultation, baseline data presented in the Issues and Options HRA (2022) has been updated and refreshed in the context of the most recent consultation document. The following sections present information about threats and pressures at each habitats site and a review of impact pathways from the Local Plan.

3.4 Air Quality

3.4.1 Natural England has developed a standard methodology for the assessment of traffic related air quality impacts under the Habitats Regulations which is relevant to the HRA of land use plans²³. This guidance sets a methodology and thresholds for screening of Likely Significant (air quality) Effects at the HRA screening stage (Stage 1 of the HRA process).

3.4.2 At this stage in the plan-making process, traffic modelling data was not available to allow the application of screening thresholds. However, Natural England's guidance (in the form of a series of questions below) has been applied to determine potential air quality impact pathways to habitats sites:

- Does the Local Plan give rise to emissions which are likely to reach a habitats site?
- Are the qualifying features of sites within 200m of a road sensitive to air pollution?
- Could the sensitive qualifying features of the site be exposed to emissions?
- Application of screening thresholds (alone and then, if necessary, in-combination).

²² "The term 'functional linkage' refers to the role or 'function' that land or sea beyond the boundary of a Habitats 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 Habitats site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status". Source: Natural England. 2016. Commissioned Report. NECR207. 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.

²³ Natural England (2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001). Available at: <http://publications.naturalengland.org.uk/publication/4720542048845824> [Date Accessed: 12/02/24].

Does the Local Plan give rise to emissions which are likely to reach a habitats site i.e. application of a 10km radius?

3.4.3 Air quality impacts have been shown to typically affect habitats sites within 10km of a plan boundary²⁴. Campman and Kite (2021) note that 'this zone is based on professional judgment recognising that the effects of growth from development beyond 10km will have been accounted for in the Nitrogen Futures modelling work business as usual scenario'²⁵.

3.4.4 The Local Plan will lead to the development of small-scale residential dwellings and residential moorings (total 358 dwellings over the 20 year Plan period) and supports employment and gypsy and traveller development (although none is allocated). This is likely to result in an increase in traffic-related emissions. Habitats sites which are located within 10km of the plan area are as listed in **Table 3.2**.

Are the qualifying features of sites within 200m of a road sensitive to air pollution?

3.4.5 It is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance^{26,27,28}. Baseline mapping data has been used to determine the proximity of habitats sites, and their qualifying features, to roads (within 200m) which may result in an exceedance of Natural England's screening thresholds (A and B roads) within a 10km buffer from the Local Plan administrative area²⁹. The UK Air Pollution Information System (APIS) provides information on all habitats sites and the sensitivity of their qualifying features (habitats and / or species) to air pollution. This data has been interrogated, alongside a desk-based review of site-based data (**Appendix C**), to determine whether there may be impact pathways from the Local Plan to any habitats site through a change in atmospheric emissions (**Table 3.1**). Based on a review of aerial mapping data and priority habitat information it is concluded that qualifying features of the Broads SAC and the Broadland SPA and Broadland Ramsar are located within 200m of an A or B road. This information suggests that these habitats sites are sensitive to changes in air quality, in particular from atmospheric nitrogen deposition (all qualifying features).

²⁴ Chapman, C and Kite, B. December 2021. Main Report. Guidance on Decision-making Thresholds for Air Pollution. JNCC Report No. 696. Available at: <https://hub.jncc.gov.uk/assets/6cce4f2e-e481-4ec2-b369-2b4026c88447> [Date Accessed: 12/02/24].

²⁵ JNCC. Nitrogen Future. <https://jncc.gov.uk/our-work/nitrogen-futures/> [Date Accessed: 12/02/24].

²⁶ The Highways Agency, Transport Scotland, Welsh Assembly Government, The Department for Regional Development Northern Ireland (2007) Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1: Air Quality.

²⁷ Natural England (2016) The ecological effects of air pollution from road transport: an updated review. Natural England Commissioned Report NECR 199.

²⁸ Signal, K., Ashmore, M. & Power, S. (2004) The ecological effects of diffuse air pollution from road transport. English Nature Research Report No. 580, Peterborough.

²⁹ As per Nitrogen Futures Modelling Work – see Paragraph 5.4.8.

Could the sensitive qualifying features of the site be exposed to emissions?

- 3.4.6 As noted above, the Local Plan will trigger the development of residential dwellings and residential moorings (358 residential dwellings and 53 residential moorings over the plan period) and supports employment and gypsy and traveller development. As such, it has the potential to increase traffic related emissions within 10km of the plan area and therefore along road links within 200m of Broads SAC and the Broadland SPA and Broadland Ramsar.

Application of screening thresholds (alone and then, if necessary, in-combination)

- 3.4.7 Natural England's advice on the assessment of air quality impacts under the Habitats Regulations states that consideration should be given to the risk of road traffic emissions associated with a local plan³⁰. This advice states that an assessment of the risks from road traffic emissions can be expressed in terms of the average annual daily traffic flow (AADT as a proxy for emissions). The use of the AADT screening threshold is advocated by Highways England in their Design Manual for Roads and Bridges (DMRB). This screening threshold is intended to be used as a guide to determine whether a more detailed assessment of the impact of emissions from road traffic is required. This non-statutory or guideline threshold is based on a predicted change of daily traffic flows of 1,000 AADT or more (or heavy-duty vehicle flows on motorways (HDV) change by 200 AADT or more).
- 3.4.8 The AADT thresholds do not themselves imply any intrinsic environmental effects and are used solely as a trigger for further investigation. Widely accepted environmental benchmarks for imperceptible impacts are set at 1% of the critical load or level, which is considered to be roughly equivalent to DMRB thresholds for changes in traffic flow of 1,000 AADT and for HDV of 200 AADT. This has been confirmed by modelling using the DMRB Screening Tool that used average traffic flow and speed figures from the Department for Transport (DfT) data to calculate whether the NO_x outputs could result in a change of >1% of critical load / level on different road types. A change of >1,000 AADT on a road was found to equate to a change in traffic flow which might increase emissions by 1% of the Critical Load or Level and might consequentially result in an environmental effect nearby (e.g. within 10 metres of roadside).
- 3.4.9 The AADT thresholds and 1% of critical load/level are considered by Natural England to be suitably precautionary as any emissions below this level are widely considered to be imperceptible and, in the case of AADT, undetectable through the DMRB model. There can, therefore, be a high degree of confidence in its application to screen for risks of an effect.
- 3.4.10 Traffic and air quality data was not available at the time of writing and therefore these screening thresholds have not been applied. Air quality LSEs at habitats sites set out in **Table 3.1** are scoped in for further consideration in the HRA process.

³⁰ Natural England (2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001). Available at:
<http://publications.naturalengland.org.uk/publication/4720542048845824> [Date Accessed: 12/02/24].

Table 3.1: Atmospheric pollution impact pathways to habitats sites³¹

Habitats site name within 10km of Broads Authority executive area	Is the habitats site sensitive to air quality impacts (as indicated in SIP / NE Supplementary Advice – Appendix A)?	Is there a strategic road link (A and B roads) located within 200m of the habitats site?	Does nitrogen deposition or acidification exceed critical loads at the habitats site (based on a review of APIS data)?	Will the habitats site be scoped in for further assessment in the HRA process
Broads SAC	Yes	Yes	Yes, for some qualifying features	Yes
Broadland SPA	Yes	Yes	Yes, for some qualifying features	Yes
Broadland Ramsar	Yes	Yes	Yes, for some qualifying features of the SAC and SPA for which the Ramsar site is designated	Yes
Breydon Water SPA	No	n/a	n/a	No
Breydon Water Ramsar	No	n/a	n/a	No
Outer Thames Estuary SPA	No	n/a	n/a	No
Great Yarmouth North Denes SPA	Yes	No	n/a	No
Winterton-Horsey Dunes SAC	Yes	No	n/a	No
Southern North Sea SAC	No	n/a	n/a	No
Greater Wash SPA	No	n/a	n/a	No
Benacre to Easton Barents SPA	No	n/a	n/a	No
Benacre to Easton Barents Lagoons SAC	No	n/a	n/a	No

³¹ APIS does not provide air quality information on the sensitivity of specific Ramsar features. However, all Ramsar sites included in this HRA are coincident with either a SAC or SPA designation and therefore air quality information for these habitats sites has been used for this scoping assessment.

Habitats site name within 10km of Broads Authority executive area	Is the habitats site sensitive to air quality impacts (as indicated in SIP / NE Supplementary Advice – Appendix A)?	Is there a strategic road link (A and B roads) located within 200m of the habitats site?	Does nitrogen deposition or acidification exceed critical loads at the habitats site (based on a review of APIS data)?	Will the habitats site be scoped in for further assessment in the HRA process
Norfolk Valley Fens SAC	Yes	No components which are located within 10km of the Broads Authority area	n/a	No
River Wensum SAC	No	n/a	n/a	No
Paston Great Barn SAC	No	n/a	n/a	No

3.5 Water quality and water quantity

3.5.1 As set out in the Issues and Options HRA, urban development coming forward through the Local Plan has the ability to affect water dependant habitats sites through a number of impacts as listed below. These impacts have the potential to change the water balance (levels) and quality of water entering habitats sites:

- Change in surface permeability and run off rates;
- Increased water demand to supply new homes and businesses;
- Reduced quality of surface run off water; and
- Increased effluent discharge for treatment from Wastewater Treatment Works (WwTWs).

3.5.2 Decisions relating to water abstraction for supply and disposal of water are controlled through a number of licensing mechanisms and a high-level water planning framework which is subject to HRA. This ensures the protection of the water environment and compliance with the Water Framework Directive (WFD).

- 3.5.3 This high-level water planning framework includes plans which inform the management of water quality and the supply of water at the catchment scale. The Broads Authority is located within the Anglian River Basin District. This is divided into several management catchments, with the Broads Authority executive area situated within the Broadland Rivers and the Anglian Transitional and Coastal (TraC) management catchment areas³² (**Figure 3.1**). The Anglian River Basin Management Plan (RBMP)³³ provides a framework for protecting and enhancing the benefits provided by the water environment. To achieve this, and because water and land resources are closely linked, it also informs decisions on land-use planning.
- 3.5.4 Anglian Water and Essex and Suffolk Water are the potable water providers for the plan area. The East of England is one of the driest regions of the UK with the Anglian region being classed by the Environment Agency as being under serious water stress³⁴. Water companies divide their supply into Water Resource Zones (WRZs). The Broads Authority executive area lies within the 'Norwich and the Broads' WRZ, which is classed as being under serious water stress particularly due to Heigham surface water abstraction on the River Wensum³⁵.
- 3.5.5 The Environment Agency (EA) prepares Abstraction Licensing Strategies (ALS) through its Catchment Abstraction Management Strategy (CAMS) process. These ALSs are prepared for each sub-catchment within a river basin. The CAMS process aims to assess the amount of water available for further abstraction licensing, taking into account environmental needs and implementation of the RBMPs and water abstraction plans³⁶. The CAMS process is published in a series of ALSs for each river basin. The plan area lies within the Broadland Rivers ALS area (**Figure 3.1**). There are hydrological links between the plan area and a number of habitats sites due their location within this ALS area (**Table 3.2**).

Table 3.2: *Hydrologically sensitive habitats sites within ALS catchment areas*

³² Environmental Agency (2023) Anglian River Basin District, Management Catchments. Available at: <https://environment.data.gov.uk/catchment-planning/RiverBasinDistrict/5> [Date Accessed: 12/02/24].

³³ Environment Agency (2022) Anglian River Basin Management Plan. Available at: <https://www.gov.uk/guidance/anglian-river-basin-district-river-basin-management-plan-updated-2022> [Date Accessed: 15/02/24].

³⁴ Environment Agency. Areas of water stress: final classification. Available at: <https://www.iow.gov.uk/azservices/documents/2782-FE1-Areas-of-Water-Stress.pdf> [Date Accessed: 15/02/24].

³⁵ Anglian Water (2022) Draft WRMP24 Water Resource Zone Summaries. Available at <https://www.anglianwater.co.uk/siteassets/household/wrmp24-norwichandthebroads-dec22.pdf> [Date Accessed: 15/02/24].

³⁶ DEFRA. July 2021. Policy Paper: Water Abstraction Plan. Available at: <https://www.gov.uk/government/publications/water-abstraction-plan-2017/water-abstraction-plan> [Date Accessed: 15/02/24].

ALS catchment	Hydrologically sensitive habitats sites within ALS catchment
Broadland Rivers ALS ³⁷	Breydon Water SPA Breydon Water Ramsar Broads SAC Broadland Ramsar Broadland SPA Great Yarmouth and North Denes SPA Norfolk Valley Fens SAC Redgrave and South Lopham Fens Ramsar River Wensum SAC Waveney and Little Ouse Valley Fens SAC

³⁷ Environmental Agency (2017) Broadland Abstraction Licensing Strategy. Available at:
https://assets.publishing.service.gov.uk/media/5a821229ed915d74e3401912/ALS_2017_Broadland.pdf [Date Accessed:
12/02/24].

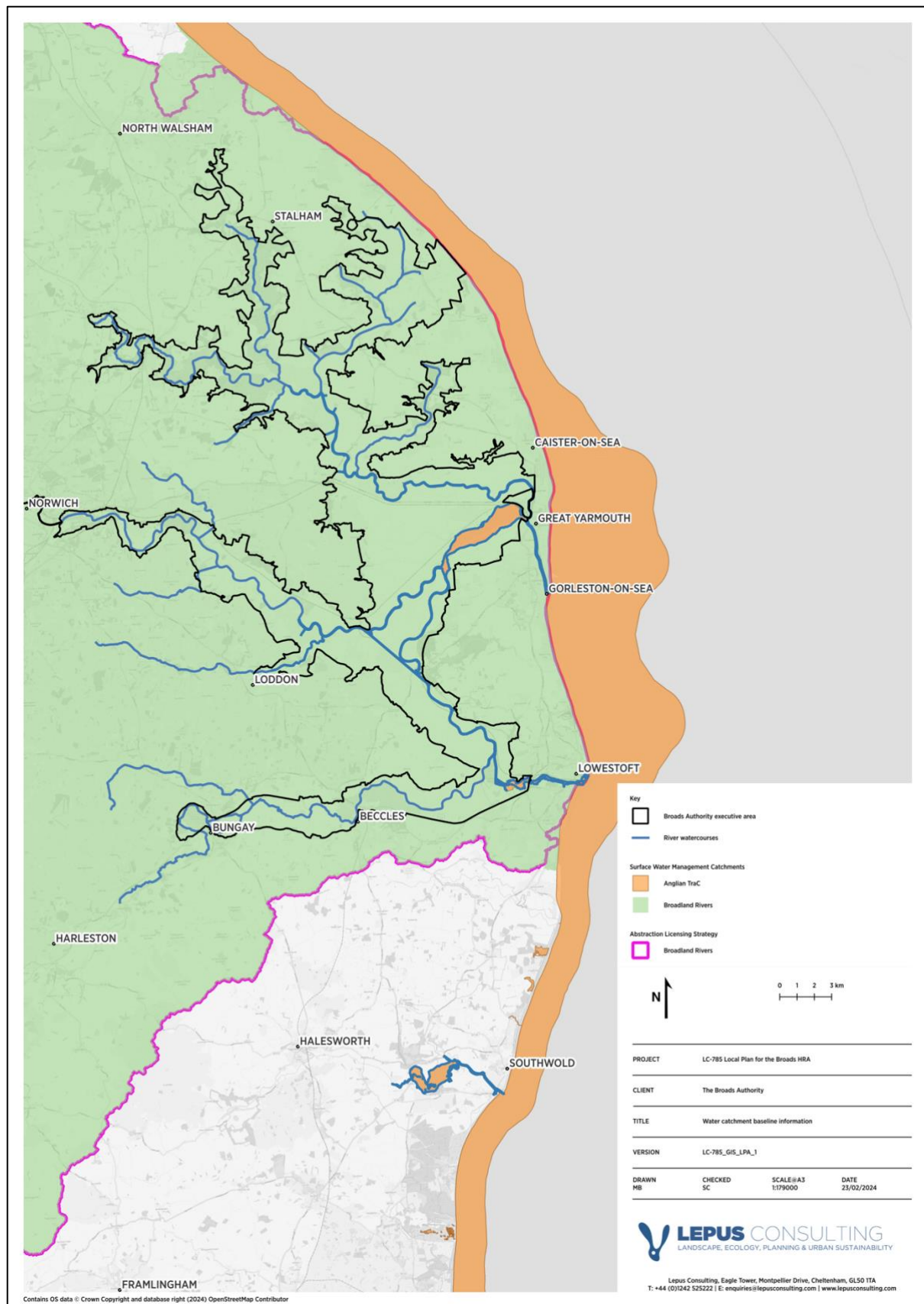


Figure 3.1: Water catchment baseline information

- 3.5.6 It is a statutory requirement that every five years water companies produce and publish a Water Resources Management Plan (WRMP). The WRMP demonstrates long term plans to accommodate the impacts of population growth, drought, environmental obligations and climate change uncertainty in order to balance supply and demand. Anglian Water and Essex and Suffolk Water are currently preparing their WRMP, both have consulted on their draft WRMP²⁴. These WRMPs will cover the Local Plan period and set out objectives in relation to water management in the area, including demand management, water supply schemes and measures to protect the environment and address climate change.
- 3.5.7 Urbanisation run-off has the potential to reduce the quality of water entering a catchment. Water quality may also be reduced through effluent discharges from wastewater treatment works and other controlled point source discharges. Any change to water quality at a water sensitive habitats site has the potential to adversely affect the features for which they are designated.
- 3.5.8 Advice from the Chief Planning Officer from the Department for Levelling Up, Housing and Communities (DLUHC) on 16th March 2022³⁸ and advice from Natural England on the same date, highlighted the importance of nutrient impacts on The Broads SAC and Broadland Ramsar. This is relevant to components of the SAC and Ramsar which are in an unfavourable condition due to elevated and exceeded nutrient thresholds (see **Figure 3.2**). These components include those underpinned by the following Sites of Special Scientific Interest (SSSIs):
- Ant Broads and Marshes SSSI
 - Bure Broads and Marshes SSSI
 - Trinity Broads and Marshes SSSI
 - Upper Thurne Broads and Marshes SSSI
 - Yare Broads and Marshes SSSI
- 3.5.9 Water quality data at these SSSI designations indicates that the targets for total phosphorus and total nitrogen are being exceeded. Within these areas, four units are achieving the target for Total Nitrogen (Cocksfoot Broad, Filby Broad, Ormesby Little Broad and Rollesby Broad Sailing Club).
- 3.5.10 Natural England's advice requires the Broads Authority (as the Competent Authority) to fully consider the implication of increased nutrient loading on these sites when determining relevant plans or projects in order to secure appropriate mitigation measures. Natural England suggests nutrient neutrality may be a potential solution to enable developments to proceed in the catchment(s) where an adverse effect on site integrity cannot be ruled out³⁹. Potential effects on water quality must be considered in the context of this advice.

³⁸ Letter from DLUHC to Chief Planning Officers and Local Planning Authorities affected by nutrient pollution. NUTRIENT POLLUTION: NEUTRALITY, SUPPORT AND FUNDING. 16 March 2022. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1061531/Chief_Planer_Letter_about_nutrient_pollution_March_2022.pdf [Date Accessed: 12/02/24].

³⁹ Letter from Natural England to LPA Chief Executives & Heads of Planning, County Council Chief Executives and Heads of Planning, EA Area and National Team Directors, Planning Inspectorate, Natural Resources Wales (Cross border sites only) & Secretary of State for Department for Levelling Up Housing & Communities (DLUHC). Advice for development proposals

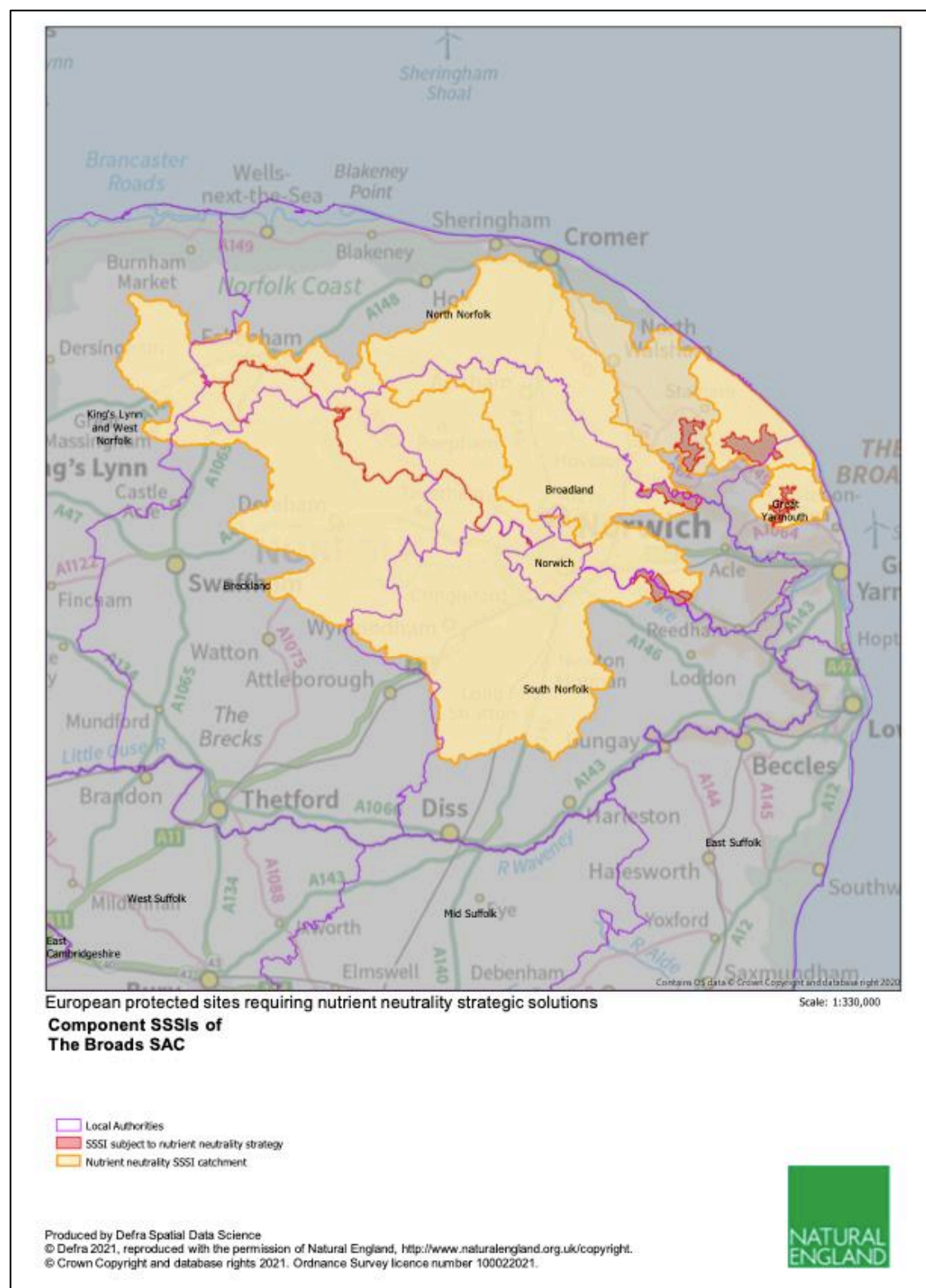


Figure 3.2: Nutrient Neutrality Strategy Area, Defra Spatial Data Science⁴⁰

with the potential to affect water quality resulting in adverse nutrient impacts on habitats sites. 16 March 2022. [Date Accessed: 12/02/24].

⁴⁰ ©DEFRA (2021) reproduced with the permission of Natural England, © Crown Copyright and database rights 2021. Ordnance Survey Licence number 100022021.

- 3.5.11 Taking into consideration potential changes in water levels (through abstraction for water supply) and water quality (through surface water run-off and discharges from wastewater treatment works), habitats sites were screened for potential hydrological impact pathways. As set out in the Preliminary HRA Scoping Report, **Table 3.3** indicates which habitats sites will be scoped into the screening assessment for further consideration in the HRA process in terms of hydrological impact pathways.

Table 3.3: Review of hydrological impact pathways to habitats sites within the influence of the Local Plan

Habitats site name	Sensitive to hydrological impacts (water quality and water quantity)	Hydrology connectivity	Will the habitats site be scoped in for further assessment in the HRA process
Broads SAC	Yes	The Broads SAC is located within the Plan area and is formed of a network of naturally nutrient-rich lakes which were artificially created through peat extraction in medieval times. This network of lakes and ditches in areas of fen and drained marshlands support a range of water dependent habitats and species. Any change in water levels, flows or water quality (In particular in relation to nutrient inputs) has the potential to have direct / indirect effects on the features for which the SAC is designated.	Yes
Broadland SPA	Yes	Broadland SPA is located within the Plan area and comprises a low-lying wetland complex created by a series of flooded medieval peat cuttings. It lies within the floodplains of five principal river systems, including the River Bure, River Yare and River Waveney and their major tributaries. It comprises a complex and interlinked mosaic of wetland habitats. Any change in water levels, flows or water quality has the potential to have indirect effects on the features for which the SPA is designated for instance through a change in food resource availability.	Yes
Broadland Ramsar	Yes	Broadland Ramsar, similarly, to the SAC and SPA is located within the Plan area, and comprises a series of flooded medieval peat cuttings which support a diverse range of habitat types and species. Any change in water levels, flows or water quality (In particular in relation to nutrient inputs) has the potential to have direct and indirect effects on the features for which the Ramsar has been notified.	Yes
Breydon Water SPA	Yes	Breydon Water SPA is a large stretch of sheltered estuary and wetland habitat which forms the lower reaches of the River Yare and River Waveney. It comprises an inland tidal estuary with extensive areas of mud flats that are exposed during low tide forming intertidal flats. These habitats provide important feeding areas for internationally important wildfowl and waders which overwinter at the site. Any change in water levels, flows or water quality may indirectly affect the qualifying features of the SPA such as through a change in the availability of food resource.	Yes
Breydon Water Ramsar	No	Breydon Water Ramsar is a large stretch of sheltered estuary and wetland habitat which forms the lower reaches of the River Yare and River Waveney. It comprises an inland tidal estuary with extensive areas of mud flats which support a diverse range of	Yes

Habitats site name	Sensitive to hydrological impacts (water quality and water quantity)	Hydrology connectivity	Will the habitats site be scoped in for further assessment in the HRA process
		habitat types and species. Any change in water levels, flows or water quality has the potential to have direct and indirect effects on the features for which the Ramsar has been notified.	
River Wensum SAC	Yes	The River Wensum is a naturally enriched, calcareous lowland river. The SAC designation is situated approximately 5.4km upstream of the plan area to the north west of Norwich. The Broads Authority area does not coincide with the nutrient neutrality catchment of the River Wensum ⁴¹ . This habitats site is therefore not considered further in terms of water quality impacts. However, the SAC is located within the same ALS area as the plan area and therefore impacts upon water supply will be considered further.	Yes
Norfolk Valley Fens SAC	Yes	The closest component of the Norfolk Valley Fens SAC is located upstream of the Strategy area. As such, hydrology pathways of impact are not considered likely. This habitats site is therefore not considered further in terms of water quality impacts. However, the SAC is located within the same ALS area as the plan area and therefore impacts upon water supply will be considered further.	Yes
Great Yarmouth and North Denes SPA	Yes	Great Yarmouth and North Denes SPA is located immediately adjacent to the plan area and comprises 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. Hydrology impacts are identified as a threat which could impact upon the qualifying features of this designation. Habitat requirements for the little tern (<i>Sternula albifrons</i>) are located at some distance from the influence of the plan. This habitats site is therefore not considered further in terms of water quality impacts. However, the SPA is located within the same ALS area as the plan area and therefore impacts upon water supply will be considered further.	Yes
Waveney and Little Ouse Valley Fens SAC	Yes	Waveney and Little Ouse Valley Fens SAC is a calcareous fen which occurs in spring fed valley fen. It is sensitive to inappropriate water levels. Whilst the SAC is over 27km to the south west of the plan area, it is located within the same ALS area and therefore impacts upon water supply will be considered further.	Yes
Redgrave and South Lopham Fens Ramsar	Yes	Redgrave and South Lopham Fens Ramsar corresponds to a component of the Waveney and Little Ouse Valley Fens SAC. It is a calcareous fen which occurs in spring fed valley fen and is sensitive to inappropriate water levels. Whilst the Ramsar is over 27km to the south west of the plan area, it is located within the same ALS area and therefore	Yes

⁴¹ Natural England. River Wensum Special Area of Conservation - Evidence Pack (TIN201). Available at: <https://publications.naturalengland.org.uk/publication/5893505531772928> [Date Accessed: 15/02/24].

Habitats site name	Sensitive to hydrological impacts (water quality and water quantity)	Hydrology connectivity	Will the habitats site be scoped in for further assessment in the HRA process
		impacts upon water supply will be considered further.	

3.6 Recreational pressure

- 3.6.1 Increased recreational pressure at habitats sites can result in damage to habitats through erosion and compaction, troubling of grazing stock, causing changes in behaviour to animals such as birds at nesting and feeding sites, spreading invasive species, dog fouling, tree climbing etc.
- 3.6.2 A common approach taken across the UK to address recreational impacts at habitat sites is to establish a Zone of Influence (ZOI) based on detailed visitor survey data. The ZOI is the area within which there are likely to be significant effects arising from recreational activities undertaken by additional residents due to growth. This is often calculated by taking the distance at which 75% of interviewees surveyed have travelled to reach a particular site (based on a review of visitor survey data).
- 3.6.3 The broad principle of buffer zones is one component of the HRA screening process for recreational pressures. This process also takes into consideration other factors such as recreational management at sites, proximity to settlements and existing recreational resources.
- 3.6.4 Where available, recreational ZOI distances have been applied to determine potential pathways of recreational effects from the Local Plan. The recreational draw of a habitats site depends on a number of factors. These include the extent and range of facilities provided (in particular parking), accessibility both within the habitats site and links to the wider area, incorporation of a habitats site as part of a wider designation such as a National Park and the site's promotion.

- 3.6.5 In 2015 and 2016 Norfolk County Council/the Norfolk Biodiversity Partnership (NBP) commissioned visitor surveys on behalf of all LPAs, to determine current and projected visitor patterns to habitats sites across Norfolk⁴². Based on this work, a ZoI was established for each habitats site within the study area based on resident and tourist visitor data. Drawing on the visitor survey data, the Councils⁴³ and the Broads Authority (working together to address cross-boundary issues and offer a strategic solution through a Norfolk Strategic Planning Framework (NSPF), prepared a Green Infrastructure (GI) and Recreational Avoidance and Mitigation Strategy (RAMS)⁴⁴. This strategy is referred to as GIRAMS and provides information to support LPAs in Norfolk in their statutory requirement to produce 'sound' i.e. legally compliant local plans for their administrative or plan making areas.
- 3.6.6 On the basis of GIRAMS, the Broads Authority has developed its own guidance for developers on the implementation of Norfolk RAMS⁴⁵. Relevant ZoI which were established through the visitor survey work (which include a ZoI for tourism development) have been applied in this assessment to determine recreational impact pathways from the Strategy to habitats sites. These have informed Natural England's SSSI Impact Risk Zones (IRZs). An overall ZoI map has been prepared for the Norfolk RAMS which covers the whole county. The ZoI for tourist accommodation is also countywide for all habitats sites. Habitats sites covered by this mitigation strategy, and which will be scoped into this HRA in terms of potential recreational LSEs, include the following:
- Brecks sites: Breckland SPA and Breckland SAC
 - Broads sites: Broads SAC and Broadland SPA
 - East Coast sites: Breydon Water SPA, Winterton-Horsey Dunes SAC and Great Yarmouth and North Denes SPA
 - North Coast sites: North Norfolk Coast SAC, North Norfolk Coast SPA, North Norfolk Coast Ramsar and the Wash and North Norfolk Coast SAC
 - Norfolk Valley Fens SAC
 - Roydon and Dersingham Bog SAC and Ramsar
 - The Wash: The Wash SPA, The Wash Ramsar and The Wash and North Norfolk Coast SAC.

⁴² Panter, C., Liley, D. & Lowen, S. (2016). Visitor surveys at European protected sites across Norfolk during 2015 and 2016. Unpublished report for Norfolk County Council. Footprint Ecology.

⁴³ Broadland District Council, Breckland District Council, Great Yarmouth Borough Council, The Borough Council of King's Lynn & West Norfolk, North Norfolk District Council, Norwich City Council, South Norfolk Council.

⁴⁴ Place Services. March 2021. *Draft subject to approval by the Norfolk Strategic Planning Group*. Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy (GIRAMS). Habitats Regulations Strategy Document.

⁴⁵ Broads Authority Developer Guidance. Available at: <https://www.broads-authority.gov.uk/planning/other-planning-issues/habitat-mitigation> and https://www.broads-authority.gov.uk/_data/assets/word_doc/0024/413754/Norfolk-RAMS-Habitats-Regulations-Assessment-HRA-record-template-DRAFT-002.docx [Date Accessed: 12/02/24].

3.6.7 East Suffolk Council (formally Suffolk Coastal District Council and Waveney District Council), Ipswich Borough Council, Mid Suffolk District Council and Babergh District Council have set out a Recreational Disturbance Avoidance and Mitigation Strategy (RAMS) to address recreational pressure at habitats sites within Suffolk^{46,47}. This strategy sets out a tariff-based approach to mitigating the impact of recreational disturbance on habitats sites resulting from increased residential development across the local authority areas. It also sets out the requirement for additional mitigation measures such as Suitable Alternative Natural Greenspace (SANG) or GI measures such as enhanced walking routes and connections to the Public Right of Way network. A ZOI for each habitats site has been developed based on visitor survey data, to determine where likely significant recreational effects may take place. For all habitats sites covered by the strategy this ZOI is defined as 13km. The only habitats site to fall within 13km of the Broads Authority executive area is the Benacre to Easton Bavents SPA. Although not involved in the production of the Suffolk Coast RAMS, as part of the ZOI fall within the Broads Authority executive area, the Broads Authority are working with the Suffolk Councils to secure appropriate mitigation⁴⁸. As such, this habitats site has been included in this assessment when considering recreational LSEs.

3.7 Urbanisation effects

3.7.1 Urbanisation effects typically occur when development is located close to a habitats site boundary. These may include impacts such as noise disturbance, lighting effects, cat predation, fly-tipping, wildfire, littering and vandalism. Urbanisation may also result in the loss of functionally linked land. Strategic mitigation schemes elsewhere in the UK have set a presumption against development (i.e. no net increase in residential dwellings) on the basis of site-specific evidence to safeguard against these impacts.

3.7.2 As with recreational impacts, urbanisation mitigation strategies have been implemented across the UK through the establishment of buffer zones. Commonly applied urbanisation ZoI extend around 400 – 500m from the edge of a designation as this reflects likely impacts from pets (e.g. cat predation) and the distance from which people access a site on foot. The Thames Basin Heaths Special Protection Area Delivery Framework⁵³ is one such strategy which makes recommendations for accommodating development while also protecting the SPA's qualifying features by establishing a 400m zone where development does not take place.

3.7.3 Habitats sites located within and immediately adjacent to the Broads Authority executive area are considered potentially vulnerable to such impacts and have therefore been scoped into this assessment for further consideration in the HRA process:

⁴⁶ East Suffolk Council. May 2021. Recreational Disturbance Avoidance and Mitigation Strategy Supplementary Planning Document (SPD). A guide to implementing the Suffolk Coast Disturbance Avoidance and Mitigation Strategy.

⁴⁷ Footprint Ecology (2019) Habitats Regulations Assessment Recreational Disturbance Avoidance and Mitigation Strategy for Ipswich Borough, Babergh District, Mid Suffolk District and East Suffolk Councils – Technical Report. Available at: <https://www.eastsuffolk.gov.uk/assets/Planning/Section-106/Habitat-mitigation/Suffolk-HRA-RAMS-Strategy.pdf> [Date Accessed: 12/02/24].

⁴⁸ Broads Authority Developer Guidance. Available at: <https://www.broads-authority.gov.uk/planning/other-planning-issues/habitat-mitigation> [Date Accessed: 12/02/24].

- Breydon Water Ramsar
- Breydon Water SPA
- Broads SAC
- Broadland Ramsar
- Broadland SPA
- Great Yarmouth and North Denes SPA
- Outer Thames Estuary SPA
- Winterton – Horsey Dunes SAC

3.8 Habitats site threats and pressures

3.8.1 **Figures 3.3 to 3.5** illustrate the location of habitats sites which will be scoped into the HRA process for further consideration in the screening assessment (**Chapter 4**). Impact pathways which have the potential to affect these habitats sites are summarised in **Table 3.4**. These will form the basis of the HRA screening assessment (**Chapter 4**).

Table 3.4: Potential impact pathways from the Local Plan at each habitats site.

Potential pathways of impact	Air quality	Water quality and quantity changes	Recreational pressure	Urbanisation pressure
Habitats sites	Broads SAC	Breydon Water SPA	Benacre to Easton Barents SPA	Breydon Water SPA
	Broadland Ramsar	Breydon Water Ramsar	Breckland SPA	Breydon Water Ramsar
	Broadland SPA	Broads SAC	Breckland SAC	Broads SAC
		Broadland Ramsar	Breydon Water SPA	Broadland Ramsar
		Broadland SPA	Breydon Water Ramsar	Broadland SPA
		Great Yarmouth and North Denes SPA	Broads SAC	Greater Yarmouth & North Denes SPA
		Norfolk Valley Fens SAC	Broadland Ramsar	Outer Thames Estuary SPA
			Broadland SPA	Winterton – Horsey- Dunes SAC
		Redgrave and South Lopham Fens Ramsar	Greater Yarmouth & North Denes SPA	
		River Wensum SAC	Norfolk Valley Fens SAC	
		Waveney and Little Ouse Valley Fens SAC	North Norfolk Coast SAC	
			North Norfolk Coast SPA	
			North Norfolk Coast Ramsar	
			Roydon and Dersingham Bog SAC	
			Roydon Common Ramsar	
			Dersingham Bog Ramsar	
			The Wash & North Norfolk Coast SAC	
			The Wash Ramsar	
			The Wash SPA	
			Winterton – Horsey- Dunes SAC	

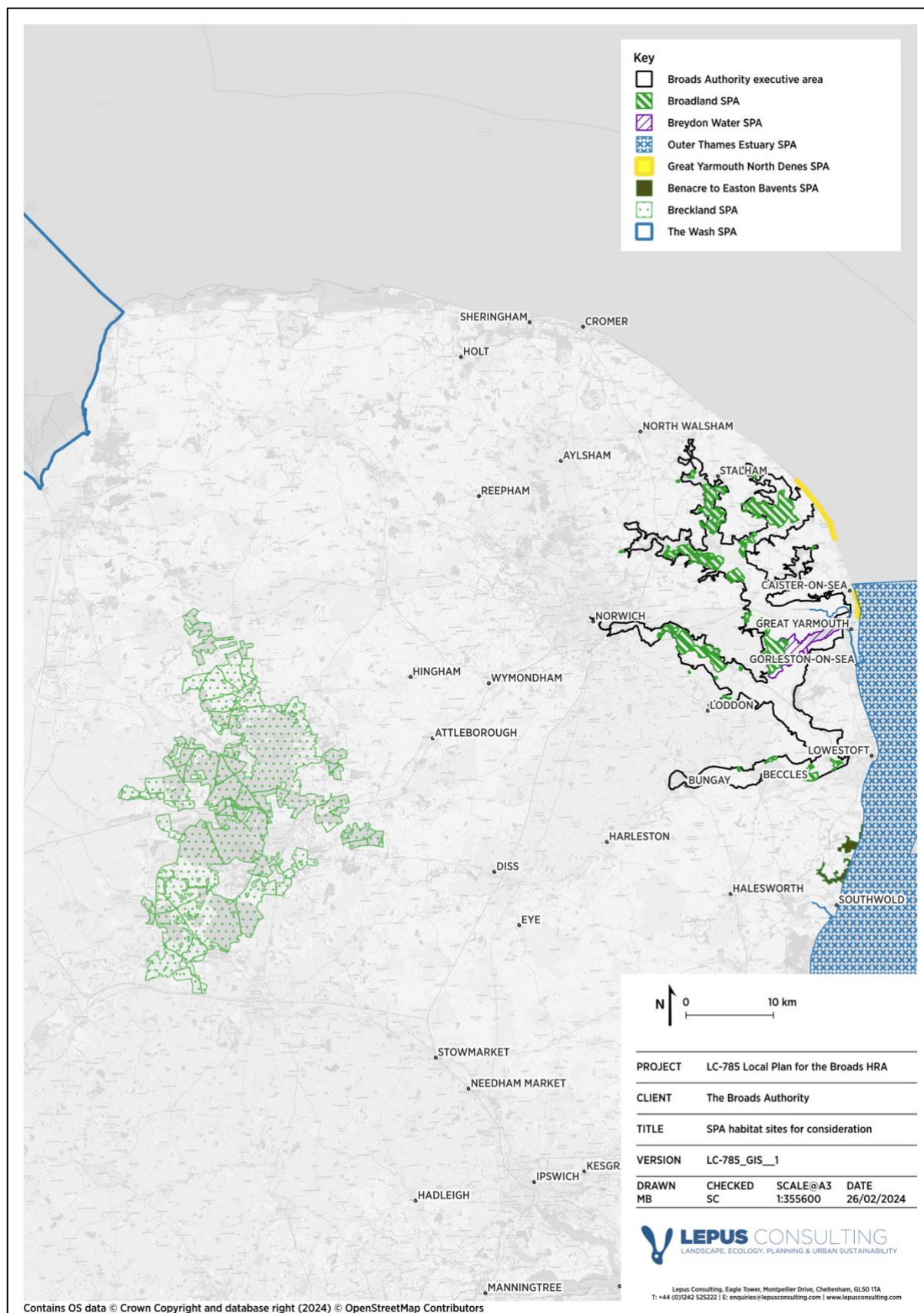


Figure 3.3: SPAs for consideration in the HRA process

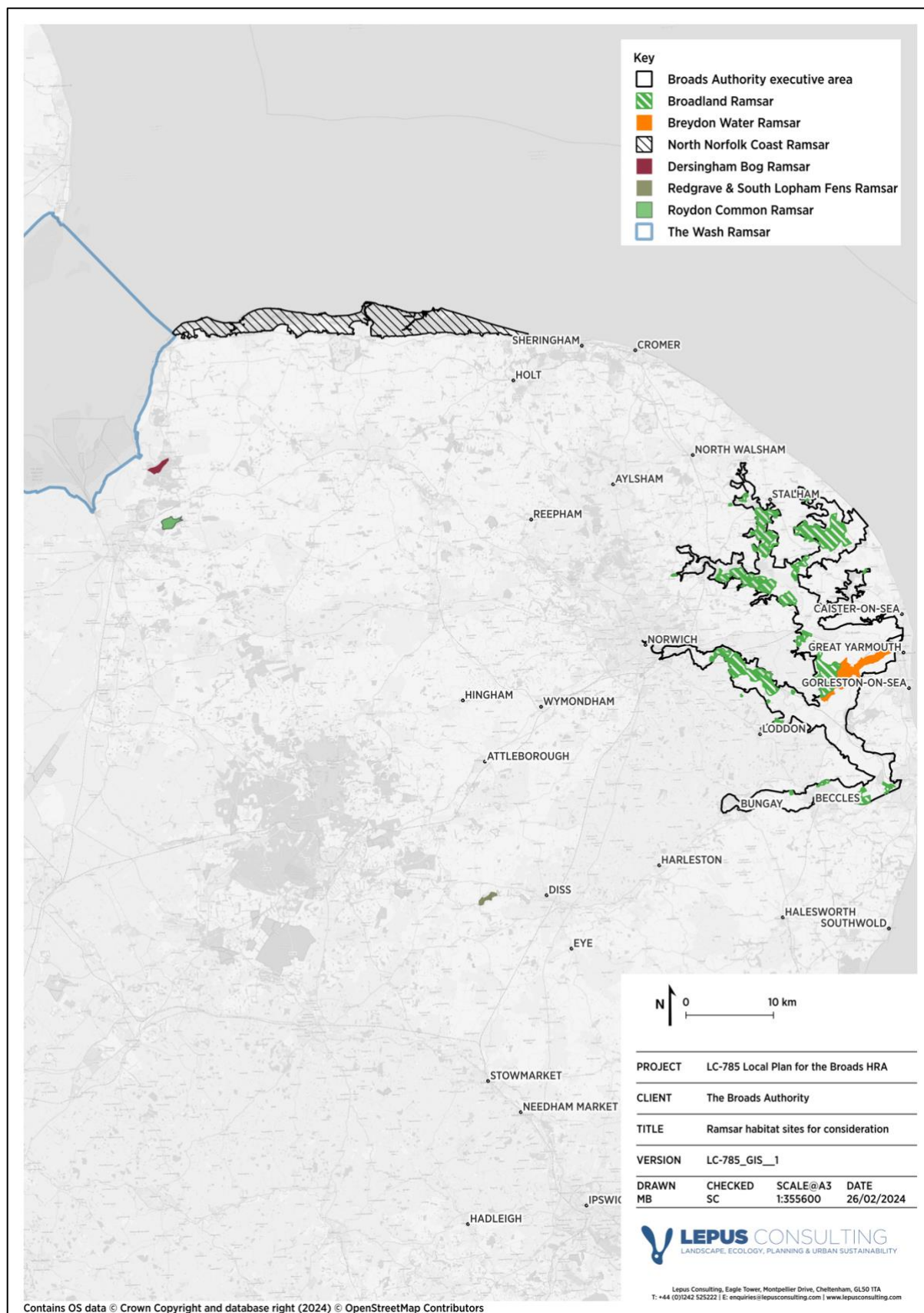


Figure 3.4: Ramsar sites for consideration in the HRA process

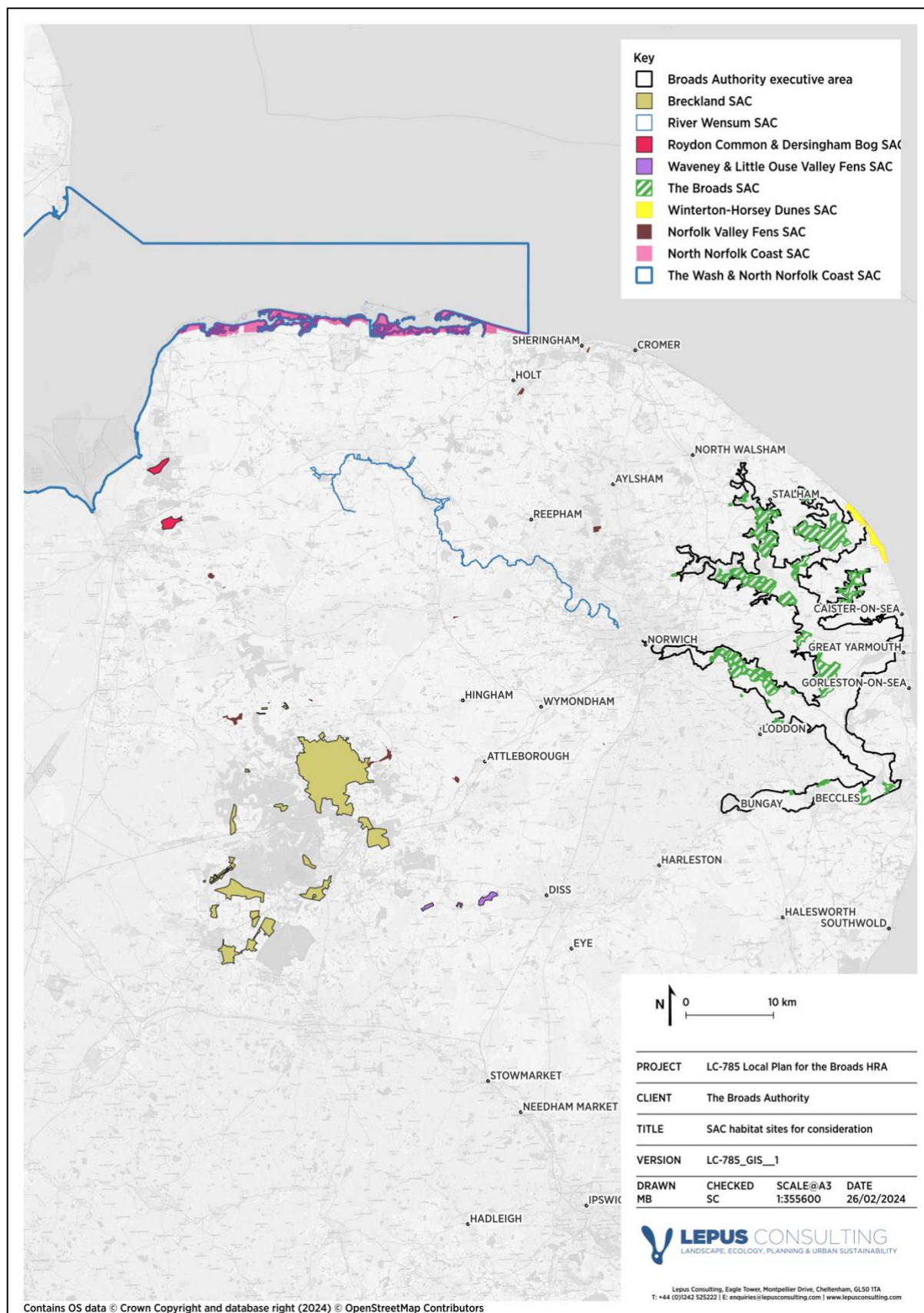


Figure 3.5: SACs for consideration in the HRA process

4 Screening of the Preferred Options Local Plan

4.1 Introduction

4.1.1 This chapter screens each component of the Preferred Options consultation for LSEs and identifies the requirement for AA (**Chapter 5, Chapter 6** and **Chapter 7**).

4.2 Screening

4.2.1 The Local Plan is not directly connected with or necessary to the management of any habitats site and as such, it is not exempted from the HRA process. In addition, it cannot be excluded or eliminated from the process on the basis of no conceivable effect. It is therefore necessary to determine whether the Local Plan will have an LSE on any habitats site, either alone or in-combination with other aspects of the plan or other plans and projects. In order to identify LSEs upon habitats sites, each component of the Preferred Options consultation has been appraised against the HRA screening criteria (see Appendix B), taking into consideration case law and best practice. The assessment of LSEs takes no account of mitigation to ensure compliance with the People Over Wind ruling⁴⁹.

4.2.2 This screening exercise builds on, and updates screening undertaken as part of the Issues and Options HRA. It will also be revisited at Regulation 19 to capture any changes in policy wording or allocations made as the Local Plan continues to be developed.

4.2.3 It is concluded that LSEs, from either the Local Plan alone or in-combination with other plans or projects, could be screened out for a number of components. This is because they fell into the following categories (see **Table 2.1** for a description of each category):

- Category A: General statements of policy / general aspirations
- Category D: Environmental protection / site safeguarding
- Category F: Policies or proposals that cannot lead to development or other change

4.2.4 Those policies set out in **Table 4.1** are considered to have an LSE in-combination with other plans and projects and have been screened into the AA process.

⁴⁹ InfoCuria (2018) Case C-323/17. Available at:

<http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN> [Date Accessed: 16/02/24].

Table 4.1: Policies of the Local Plan screened into the HRA process (summarised from Appendix B)

Policy number	Policy name
PODM10	Green Infrastructure
PODM13	Re-use, Conversion or Change of Use of Historic Buildings
POSP14	Natural Environment
PODM16	Mitigating Recreational Impacts
PODM17	Mitigating Nutrient Enrichment Impacts
POSP8	Accessibility and Transport
POSP9	Recreational Access around the Broads Area
PODM23	Transport, Highways and Access
PODM29	Recreational Facilities Parking Areas
PODM32	Farm Diversification
PODM33	Development on Waterside in Employment or Commercial Use, Including Boatyards
POSP12	Sustainable Tourism
PODM35	Sustainable Tourism and Recreational Development
PODM36	Holiday / Tourism Accommodation – New Provision and Retention
POSP13	Navigable Water Space
PODM37	Access to the Water
PODM38	Bank Stabilisation
POSP14	Mooring Provision
PODM39	Mooring, Mooring Basins and Marinas
PODM40	The Impact of Replacing Quay Heading on Navigation
POSP15	Residential Development
PODM43	Residential Development within Defined Development Boundaries
PODM44	Gypsy, Traveller and Travelling Show People
PODM45	New Residential Moorings
PODM46	Permanent and Temporary Dwellings for Rural Enterprise Workers
PODM47	Elderly and Specialist Needs Housing
PODM48	Residential Ancillary Accommodation
PODM50	Custom / Self-Build
POBRU1	Riverside Chalets and Mooring Plots
POBRU2	Riverside Estate Boatyards, etc., including land adjacent to railway line
POBRU4	Brundall Marina
POBRU6	Brundall Gardens
POCAN1	Cantley Sugar Factory
POCHE1	Greenway Marina Residential Moorings
POGIL1	Gillingham residential Mooring (H.E. Hippersons Boatyard)
POGTY1	Marina Quays (Port of Yarmouth Marina)
POHOR3	Waterside Plots
POHOR4	Horning Sailing Club
POHOR6	Horning – Boatyard, etc... At Ferry Road and Ferry view Road
POHOV3	Brownfields land off station Road, Hoveton
POHOV4	BeWilDerwood Adventure Park
POHOV5	Hoveton Town Centre and Areas Adjacent to the Town Centre
POLOD1	Loddon Marina Residential Moorings

Policy number	Policy name
PONOR1	Utilities Site
POOUL2	Oulton Board – Former Pegasus / Hampton Sites
POPHRB1	Bridge Area
POSOM1	Somerleyton Marina Residential Moorings
POSTA1	Land at Stalham Staithe (Richardson’s Boatyard)
POSTO1	Land adjacent to Tiedam, Stokesby
POTSA1	Cary’s Meadow
POTSA2	Thorpe Island
POTHU1	Tourism Development at Hedera House, Thurne
POWHI1	Whitlingham Country Park Plus Adjacent land
POWHI2	Land at Whitlingham Lane
POSSTRACKS	Former Rail Trackways
POSSMILLS	Drainage Mills
POSSA47	Road schemes on the Acle Straight (A47T)

4.2.5 The following different types of LSE were identified at habitats sites as follows:

- Air quality LSEs – in-combination
- Water quality and/or quantity LSEs – alone and in-combination
- Recreational impacts – in-combination
- Urbanisation effects – in-combination

4.3 Screening conclusion

4.3.1 As required under Regulation 105 of the Habitats Regulations, an assessment has been undertaken of LSEs of the Local Plan upon habitats sites. The screening assessment takes no account of mitigation measures that the policies may incorporate to mitigate adverse impacts upon habitats sites. It concludes that there are LSEs and therefore the Local Plan will be screened into the HRA process for an AA.

4.3.2 It is too early at this stage of the plan making process to undertake a final AA as evidence is in preparation which will inform the details within the Local Plan and further consultation will be undertaken on its development.

4.3.3 However, the following sections of this report identify issues which will be considered in the final AA and where possible a preliminary AA has been prepared. The full AA will be completed alongside preparation of the Regulation 19 version of the Local Plan when all HRA evidence and Local Plan details are available.

5 Preliminary Air Quality Appropriate Assessment

5.1 Introduction

5.1.1 The HRA screening process in **Chapter 4** concluded that a number of Local Plan policies have the potential to result in LSEs at the following habitats sites due to changes in air quality.

- Broads SAC
- Broadland Ramsar
- Broadland SPA

5.1.2 Where evidence allows, this section of the report provides a preliminary AA of this issue. It also highlights additional work that will be required to complete the AA at Regulation 19.

5.2 Air quality impacts

5.2.1 The main mechanisms through which air pollution can have an adverse effect are through eutrophication (nitrogen), acidification (nitrogen and sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides)⁵⁰. Deposition of air pollutants can alter the soil and plant composition and species which depend upon these.

5.2.2 Excess atmospheric nitrogen deposition within an ecosystem or habitat can disrupt the delicate balance of ecological processes interacting with one another. As the availability of nitrogen increases in the local environment, some plants that are characteristic of that ecosystem may become competitively excluded in favour of more nitrophilic plants. It also impacts the ammonium and nitrate balance of the ecosystem, which disrupts the growth, structure and resilience of some plant species.

5.2.3 Excess nitrogen deposition often leads to the acidification of soils and a reduction in the soils' buffering capacity (the ability of soil to resist pH changes). It can also render the ecosystem more susceptible to adverse effects of secondary stresses, such as frost or drought, and disturbance events, such as foraging by herbivores.

⁵⁰ APIS (2016) Ecosystem Services and air pollution impacts. Available at: <http://www.apis.ac.uk/ecosystem-services-and-air-pollution-impacts>. [Date Accessed: 15/02/24].

5.3 Baseline air quality information

- 5.3.1 The qualifying features of the Broads SAC and Broadland SPA are listed in Appendix A. The SIP⁵¹ for these designations indicates that a number of their qualifying features are sensitive to air pollution. Qualifying habitats can either be sensitive to direct toxicity from air pollution or to changes in soil chemistry associated with nitrogen deposition and acidification. Qualifying species may be indirectly affected by air quality changes where they result in a change in habitat composition and food / resource availability.
- 5.3.2 The Broadland Ramsar information sheet does not identify a threat from air quality⁵². It is recognised that the notified Ramsar features for the Broadland Ramsar are the same as the qualifying features of the SAC and SPA and therefore this AA also applies to the Broadland Ramsar designation.
- 5.3.3 In an attempt to manage the negative consequences of atmospheric nitrogen deposition and acidification, 'critical loads' and 'critical levels' have been established for ecosystems across Europe. Each habitats site is host to a variety of habitats and species, the features of which are often designated a critical load for nitrogen deposition. The critical loads of pollutants are defined as a "...quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge"⁵³. Critical levels are defined as "concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials, may occur according to present knowledge"⁵⁴.
- 5.3.4 Appendix C summarises the critical loads and current levels of deposition for the SAC and SPA for each qualifying feature⁵⁵. It also provides source contribution data for nitrogen deposition. This data indicates that nitrogen deposition and acidity is currently exceeding the critical load for a number of qualifying features. APIS indicates that there would be no expected negative impact from increased nitrogen deposition on species broad habitat types for all qualifying features of the SPA, with the exception of Great bittern (*Botaurus stellaris*) and Eurasian marsh harrier (*Circus aeruginosus*) when using fen, marsh and swap habitat for reproducing and Eurasian wigeon (*Mareca penelope*) when using literal sediment for wintering activity. For species using open standing water habitat type, the impact of nitrogen deposition will be dependent on whether the water body is nitrogen or phosphorus limited. APIS indicates there would be no expected negative impact from increased acid deposition on the species broad habitat types for all SPA qualifying features.

⁵¹ Natural England (2014) Broadlands Site Improvement Plan. Available at:

<https://publications.naturalengland.org.uk/publication/5444118129934336> [Date Accessed: 16/01/24].

⁵² Ramsar Information Sheet. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11010.pdf> [Date Accessed: 24/01/24].

⁵³ Coordination Centre for Effects (CCE). Critical load and level definitions. Available at:

https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 15/02/24].

⁵⁴ Coordination Centre for Effects (CCE). Critical load and level definitions. Available at:

https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 15/02/24].

⁵⁵ Air Pollution Information Systems (APIS) Available at: <http://www.apis.ac.uk/> [Date Accessed: 24/02/24].

5.3.5 The scoping assessment presented in **Chapter 3** indicates that there are a number of strategic road links within 200m of the SAC and SPA which are capable of carrying traffic which may exceed Natural England's screening thresholds. A review of aerial photography and site mapping data for the SAC and SPA indicates that there is likely to be qualifying habitat present within 200m of these road links.

5.4 Preliminary Appropriate Assessment

5.4.1 As set out in Section 3.4, Natural England has developed a standard methodology for the assessment of traffic related air quality impacts under the Habitats Regulations which is relevant to the HRA of land use plans⁵⁶. In addition, the Institute of Air Quality Management (IAQM)⁵⁷ and the Chartered Institute of Ecology and Environmental Management (CIEEM)⁵⁸ have also prepared advice on the assessment of air quality impacts at designated sites. This includes consideration of factors such as:

- The action needed to achieve the conservation objectives for the habitats site(s);
- The expected future trend in pollutants of concern (and the scientific reasonableness of any trend);
- The magnitude of any future 'in combination' dose and how it may change the trend; and
- The physical extent of the affected area as a proportion of that interest feature within the habitats site(s)⁵⁹.

5.4.2 The conservation objectives for the SAC and SPA specify that the integrity of these sites is maintained or restored as appropriate, to ensure that they contribute to achieving the Favourable Conservation Status of the SAC's Qualifying Features and ensure that the SPA contributes to achieving the aims of the Wild Birds Directive. In order to achieve this, air quality at the SAC and SPA will need to be restored to 'at or below' critical levels and loads.

5.4.3 A review of background air quality trends provided on APIS⁶⁰ indicates that there has been a decline in nitrogen deposition since 2003 and an associated overall decline in acid deposition (although there was a small peak in 2017 which is now shown to be declining). This may be attributed to national initiatives such as improvements in vehicle technologies (new standard Euro 6/VI vehicles) and the implementation of other catchment wide initiatives.

⁵⁶ Natural England (2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001). Available at:

<http://publications.naturalengland.org.uk/publication/4720542048845824> [Date Accessed: 15/02/24].

⁵⁷ Holman et al (2020). A guide to the assessment of air quality impacts on designated nature conservation sites – version 1.1, Institute of Air Quality Management, London.

⁵⁸ CIEEM (2021) Advice on Ecological Assessment of Air Quality Impacts. Chartered Institute of Ecology and Environmental Management. Winchester, UK.

⁵⁹ CIEEM. January 2021. Paragraph 20. Advisory Note: Ecological Assessment of Air Quality Impacts.

⁶⁰ The Air Pollution Information System available at: <https://www.apis.ac.uk/>

5.4.4 APSI data indicates that local contributions to nitrogen deposition are predominantly associated with agricultural sources, with 15% of contributions from fertiliser applications and 37.5% from livestock, see **Figure 5.1**. By comparison, road sources only contribute 5.7% to local nitrogen deposition levels. This data suggests that the Local Plan area sits within an agricultural 'hotspot'. It is clear from this data that steps to avoid critical load exceedance and restore the site to 'at or below' critical loads, will require action to reduce emissions from existing agricultural sources as a priority. CIEEM's guidance notes that where 'road transport makes only a small contribution to the critical load exceedance, investment to encourage cleaner car technology may be sufficient to regard a new proposal which leads to a small increase in traffic on local roads as acceptable'. This data indicates that the key issue to ensure conservation objectives are achieved in relation to air quality, will be a strategic approach towards agricultural emissions.

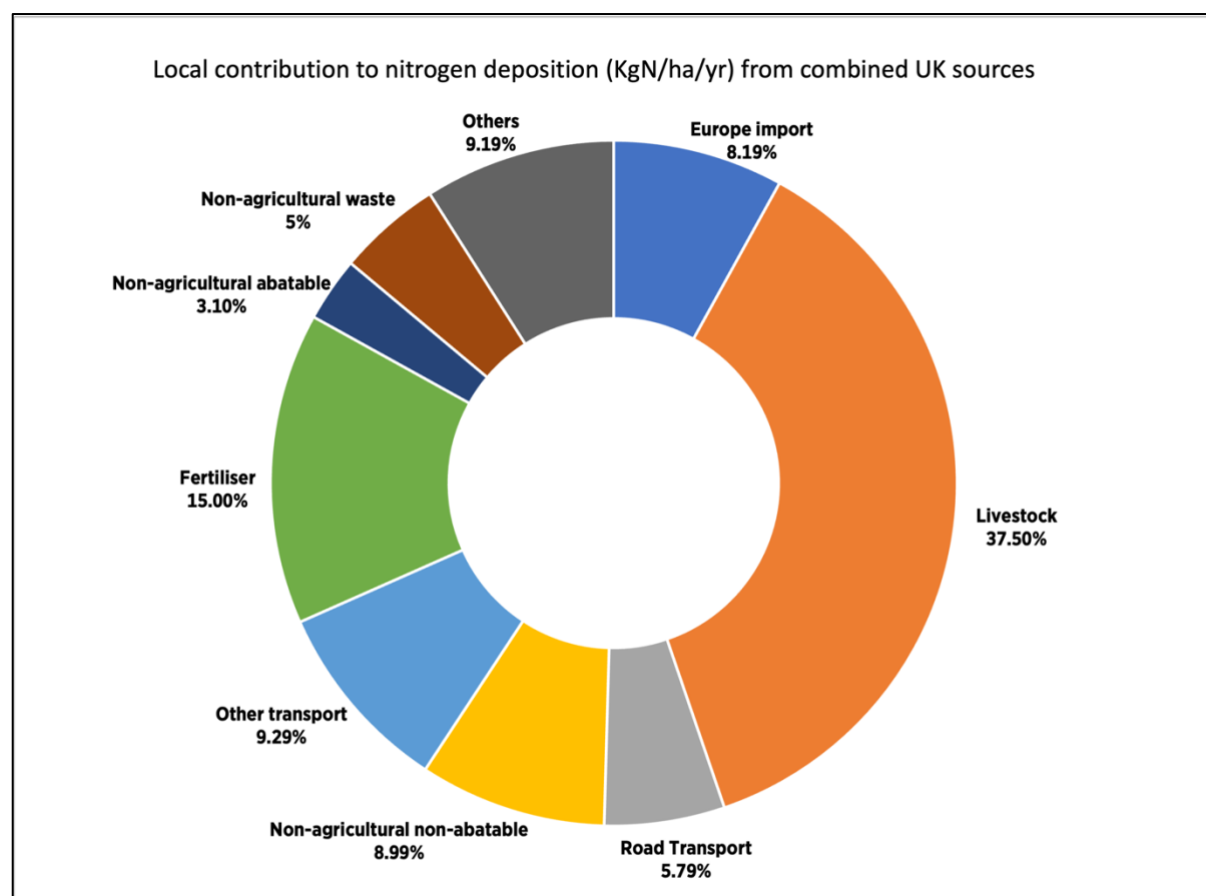


Figure 5.1: Pie chart to illustrate local contributions to nitrogen deposition

5.4.5 Policies set out in the Local Plan incorporate measures for sustainable transport and a requirement to encourage a modal shift and promote active transport options (PODM23: Transport, Highways and Access). These policies will have a positive impact upon air quality by discouraging the private car and encouraging use of electric cars.

5.4.6 The overarching Broads Plan and other Broads Authority strategic plans and guiding strategies set out a series of measures which will have a positive impact and contribute towards the mitigation of air quality impacts from traffic sources at habitats sites. These include the following:

- The Broads Plan. Several strategic objectives under the theme of climate change aim to reduce climate emissions through initiatives such as replacing all Broads Authority operating vehicles with electric options (A2), initiatives such as 'Electrifying the Broads' and promotion of tourism hotspots with electric vehicle and alternative fuel strategies and visitor green travel (A3). Other objectives under the 'promoting understating and enjoyment' theme support initiatives for active travel around the Broads (E1).
- The Broads Authority Integrated Transport Strategy⁶¹ aims to encourage sustainable travel choices such as public transport, walking, cycling and non-powered boating, and improve links between public transport provision, visitor destination points and access routes.
- The Norfolk County Council Local Transport Plan (LTP) 4 Strategy⁶² aims to address issues such as air quality and carbon reduction and tackle infrastructure issues in relation to major road, bus and rail connections. It sets out a series of strategies and policies in relation to this. Policy 2 of LTPS4 notes the priority for reducing emissions will be to support a shift to more sustainable modes and more efficient vehicles, including lower carbon technology and cleaner fuels. Policy 3 notes that innovation and new technologies will be embraced and used proactively to meet new targets set by the recently adopted environmental policy. Policy 4 encourages a behaviour change and interventions that can help to increase the use of sustainable transport.
- The Suffolk LTP⁶³ sets out a series of priorities which include improvements to air quality through promotion of sustainable transport options and promotion of technological improvements.
- National⁶⁴ and local planning policy requires the protection of habitats sites and will apply to all development which requires planning permission. Policy POSP5: Biodiversity and PODM14: Natural Environment provide protection for habitats sites and sets out the requirement for compliance with the Habitats Regulations at the project level.

5.4.7 As noted in Section 3.4, traffic modelling has not been undertaken as part of the plan making process. It is noted that the overall housing delivery target for Broads is 358 dwellings (see Local Plan Policy POSP15) over the plan period. Given this scale of housing growth, it is considered unlikely that there will be a significant increase in traffic flows (above the 1,000 AADT screening threshold set by Natural England) on strategic road links from the Local Plan alone.

⁶¹ Broads National Park (2019) Integrated Access Strategy for the Broads.

⁶² Norfolk County Council (2022). Local Transport Plan 4 Strategy 2021 – 2036.

⁶³ Suffolk County Council (2011) Local Transport Plan 2011 – 2031. Part 1 Transport Strategy.

⁶⁴ Community of Levelling Up, Housing and Communities (2023). National Planning Policy Framework. Para 187. Available at: https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf [Date Accessed: 18/02/24].

- 5.4.8 The following factors have been taken into consideration in this section of the AA:
- Local Plan policy wording to encourage a modal shift, promote active forms of transport and encourage uptake of electric vehicles;
 - Local Plan policy wording which sets out protection for habitats sites and requirement for project level HRA;
 - National and county policy initiatives to encourage a modal shift, electric vehicles, and active transport;
 - Housing provision over the plan period (358 dwellings in total); and
 - Downward local air quality trends and limited road traffic source contribution to nitrogen deposition.
- 5.4.9 Taking these into consideration it is considered unlikely that there will be any adverse impacts on site integrity at the Broads SAC, Broadland Ramsar and Broadland SPA (either alone or in-combination) due to a change in air quality as a result of the Local Plan. It is noted that the key management issues at the SAC and SPA in terms of nitrogen deposition are associated with management of agricultural sources.
- 5.4.10 The outputs of this preliminary AA will be reviewed at Regulation 19 to capture any changes made to the emerging Local Plan.

6 Preliminary Water Appropriate Assessment

6.1 Introduction

6.1.1 The following section of the AA focuses on assessing more precisely the ecological impacts of increased water quality and quantity impacts from the Preferred Options Local Plan upon the qualifying features of the following habitats sites which were scoped into the HRA process (**Chapter 3**):

- Breydon Water Ramsar
- Breydon Water SPA
- Broads SAC
- Broadland Ramsar
- Broadland SPA
- Great Yarmouth and North Denes SPA
- Norfolk Valley Fens SAC
- Redgrave and South Lopham Fens Ramsar
- River Wensum SAC
- Waveney and Little Ouse Valley Fens SAC

6.2 Baseline information

Water Quality

6.2.1 As noted in Section 3.7, urbanisation has the potential to reduce the quality of water entering a catchment through processes such as sedimentation, accidental spillage of chemicals and materials and operational surface water runoff. Water quality may also be reduced through effluent discharges at wastewater treatment works. This change in water quality can increase nutrient inputs into a catchment which can lead to algal blooms, reduce dissolved oxygen and increased turbidity. This can affect the overall condition of the receiving waterbody and may have adverse effects at hydrologically sensitive and connected habitats sites and their qualifying features.

6.2.2 Wastewater treatment in the plan area is provided via Wastewater Recycling Centres (WRCs) operated and maintained by Anglian Water Services (AWS). Treated wastewater is ultimately discharged to nearby waterbodies. Each WRC is connected to development by a network of wastewater pipes (the sewerage system) which collects wastewater generated by homes and businesses to the WRC. The Environment Agency control discharges from WRC through the issue of permits.

6.2.3 Given the location of the plan area within the nutrient sensitive catchments of the Broads SAC and Broadland Ramsar (see Section 3.5) potential impacts upon water quality at these habitats sites is likely. Other water quality impact pathways, e.g. via surface water runoff, may also affect other habitats sites within the plan area such as Broadland SPA, Breydon Water SPA and Breydon Water Ramsar.

Water quantity

- 6.2.4 Urban development can reduce catchment permeability and the presence of drainage networks may be expected to remove runoff from urbanised catchments. This may result in changes in run off rates from urbanised areas to habitats sites or watercourses which connect to them and therefore water levels. Water mains leakage and sewer infiltration may also affect water levels. In addition, supply to meet water demand associated with new development (residential and employment supported by the Local Plan) also has the potential to affect water balances at hydrologically sensitive habitats sites which are connected to the plan area.
- 6.2.5 As noted in Section 3.5, the main water service providers for the Broads are Anglian Water and Essex and Suffolk Water. Their draft WRMPs set out objectives to manage water demand. Abstractions for water supply are managed by the Environment Agency through licences issues in line with their CAMS process. The CAMS process is published in a series of ALSs for each river basin, with the Broadland Rivers ALS area being of relevance to the Broads Authority. As set out in Section 3.5, a number of habitats sites are located within this ALS area and are therefore potentially susceptible to impacts associated with water abstraction from new development in the plan area. These sites include the following:
- Breydon Water SPA
 - Breydon Water Ramsar
 - Broads SAC
 - Broadland Ramsar
 - Broadland SPA
 - Great Yarmouth and North Denes SPA
 - Norfolk Valley Fens SAC
 - Redgrave and South Lopham Fens Ramsar
 - River Wensum SAC
 - Waveney and Little Ouse Valley Fens SAC

6.3 Preliminary Appropriate Assessment

Water quality

- 6.3.1 Given the unfavourable and declining status of the SSSIs which underpin the Broads SAC and Broadland Ramsar (see Section 3.5), any reduction in water quality would result in an adverse impact on site integrity.
- 6.3.2 Increased nutrient loading (nitrogen and phosphorus) as a result of new development has the potential to reduce water quality. The Broads contain examples of naturally nutrient-rich lakes. These lakes and the ditches in areas of fen and drained marshlands support relict vegetation of the original fenland flora, and collectively contains one of the richest assemblages of rare and local aquatic species in the UK⁶⁵. The features for which the SAC and Ramsar are designated and the composition of species are dependent on the condition of water quality.

⁶⁵ WOOD, A., WAKE, H. and MCKENDRICK-SMITH, K (2022) The Broads Special Area of Conservation/Broadland Ramsar – Evidence Pack. Natural England Technical Information Note. TIN205 Natural England.

- 6.3.3 Policy PODM17 (Mitigating Nutrient Enrichment Impacts) of the Preferred Options Local Plan contains protective policy wording to ensure that new development does not increase nutrient loading.

Policy PODM17: Mitigating Nutrient Enrichment Impacts

1. Any development proposal for overnight accommodation which is located within the catchments of the Broads Special Area of Conservation (SAC) and Broadland Ramsar site, must provide evidence to enable the Authority to conclude through a Habitats Regulations Assessment that the proposal will not increase nutrient loads, such that it will not have likely significant effects on the integrity of sites in an unfavourable condition. This can be demonstrated through nutrient neutrality.
2. Planning permission will be granted subject to demonstrating no adverse effect on the integrity of Habitats Sites from nutrient enrichment when considered alone or in-combination.
3. The Norfolk Nutrient Calculator/Natural England Nutrient Calculator will need to be completed. If the calculator concludes an impact from nutrients, these impacts will need to be mitigated using appropriate mitigation, likely secured through a local or national mitigation scheme. The Authority may use legal agreements to ensure this mitigation is secured and in place and will be delivered.

- 6.3.4 One method to achieve this is through nutrient neutrality. Guidance has been prepared which identifies potential solutions to achieve nutrient neutrality⁶⁶. The Norfolk Environmental Credits⁶⁷ has been set up to invest in local environmental schemes which will provide nutrient neutrality mitigation and generate credits for development to demonstrate that nutrients can be offset.
- 6.3.5 Part 7 of the Levelling Up and Regeneration Act (2023) places a duty on water companies discharging to affected catchment areas to upgrade their waste water treatment works to achieve the highest technological levels for nutrient removal by 1 April 2030. In addition, the Natural England-led Nutrient Mitigation Scheme⁶⁸ is progressing and will allow developers to purchase nutrient credits to demonstrate nutrient neutrality.
- 6.3.6 Under Policy PODM17, relevant permissions will only be granted where nutrient neutrality can be demonstrated to ensure compliance with the Habitats Regulations. This policy requires evidence to be submitted to the Authority (as the Competent Authority) to show that on-site or off-site mitigation to achieve nutrient neutrality will be provided for relevant
- 6.3.7 Other policies set out in the Preferred Options Local Plan (Policy PODM4: Water Quality and Foul Drainage and Policy PODM5: Boat Wash-Down Facilities) will also contribute towards the protection of water quality at the SAC and Ramsar and other sites listed in **Paragraph 6.2.5.**

⁶⁶ Royal Haskoning DHV (2023) Norfolk Nutrient Guidance.

⁶⁷ Norfolk Environmental Credits. Available at: <https://www.norfolkenvironmentalcredits.co.uk/>

⁶⁸ Natural England Nutrient Mitigation Scheme. Available at <https://www.gov.uk/government/publications/natural-englands-nutrient-mitigation-scheme-for-developers>

- 6.3.8 In addition, Policy PODM14: Natural Environment will apply to all allocations, and any other windfall development which comes forward through the Local Plan. This policy includes requirements for development to comply with the Habitats Regulations and ensures no adverse impacts on the site integrity of any habitats site either alone or in-combination.
- 6.3.9 The over-arching Broads Plan and other Broads Authority strategic plans and guiding strategies (as listed below) also set out a series of local measures which will have a positive impact and contribute towards the protection of water quality at habitats sites.
- The Broads Plan. Strategic Objective B2 aims to promote best practice water capture and usage across the Broadland Rivers catchment and reduce pollution. It also aims to adopt and implement objectives set out in other water-based plans. Section 1.3 sets out the requirement for all lower tier plans and projects (required to implement the strategic objectives in the Broads Plan) to be undertaken in a manner that is sensitive to the environment. It notes that works will also need to comply with relevant permits and controls to ensure environmental protection on habitats sites, and where relevant, such plans, programmes and works will be subject to HRA. Theme F sets out Natural England's guidance received on the requirement for new development to achieve nutrient neutrality.
 - Broadland Rivers Catchment Plan aims to reduce run-off of contaminants, soil and nutrients from entering the Broadland Rivers catchment. It also aims to increase water capture and manage water efficiency within the catchment.
 - The Waterways Management Strategy⁶⁹ sets out a series of protective policies and mechanisms within which work will take place to ensure water quality and water levels are protected. It also sets out the requirement for lower tier plan and project HRA. The WMS has been subject to HRA.
 - The Broads Authority also provides guidance on environmentally friendly boating⁷⁰, which includes low wash hulls, guidance on maintaining water quality (from detergents and anti-fouling paints) to protect water quality.
- 6.3.10 The Advocate General's opinion in the European Court of Justice case C-6/04 *European Commission v United Kingdom* confirmed the progression of assessment that must take place either from higher level to lower-level plans, or as the plan becomes more specific. She notes at paragraph 49:
- 6.3.11 'adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure'⁷¹.

⁶⁹ Broads Authority (2022) Waterways Management Strategy and Action Plan 2022/23 – 2026/27.

⁷⁰ Available at: <https://www.broads-authority.gov.uk/boating/owning-a-boat/environmentally-friendly-boating> [Date Accessed: 19/01/24].

⁷¹ Opinion available at: <https://curia.europa.eu/juris/showPdf.jsf?jsessionid=3D44C34DA890BCDA175840065B4AECE4?text=&docid=58359&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=3054642> [Date Accessed: 16/02/24].

- 6.3.12 It is important to note that the Local Plan for the Broads does not remove the requirement for lower tier plans and projects to be subject to HRA through the Habitats Regulations. Once detailed information on the exact nature, scope, timing, location and scale of specific applications are known, these will be assessed, and mitigation defined and secured. HRA of lower tiered plans and projects, are required as a matter of law and Government policy.
- 6.3.13 At Regulation 19 the AA will apply protective water quality policy wording from the Local Plan and draw on the wider protective framework for water quality. The AA will also assess the ability for all Local Plan allocations and windfall development to achieve nutrient neutrality.
- Water quantity
- 6.3.14 HRA is a key requirement associated with the development of the Anglian Water and Essex and Suffolk Water WRMP. The emerging WRMPs which takes a strategic approach to water planning, and their accompanying HRAs, will be reviewed at Regulation 19 to fully assess impacts upon water quantity in-combination with abstraction for other neighbouring LPA areas.
- 6.3.15 Policies in the Local Plan, such as Policy PODM6: Water efficiency and re-use, aim to drive down water demand and therefore reduce pressures upon the Anglian region and subsequently at hydrologically sensitive designated sites (see Section 3.5). In addition, the over-arching Broads Plan and other Broads Authority strategic plans and guiding strategies (listed in **Paragraph 6.3.10**) also set out a series of measures to protect water quantity at habitats sites. In particular the Norfolk Water Strategy Programme aims to look at the significant pressures on water resources in the eastern area and address the effects of climate change.
- 6.3.16 In terms of water quantity impacts, on-going dialogue will be required with Anglian Water and Essex and Suffolk Water to ensure water supply can accommodate future forecast growth in the plan area. This ongoing dialogue will feed into the AA at Regulation 19.

7 Preliminary Recreation and Urbanisation Appropriate Assessment

7.1 Introduction

7.1.1 The following section of the AA focuses on assessing more precisely the ecological impacts of increased recreational pressure and urbanisation from the Local Plan upon the qualifying features of the following habitats sites which were scoped into the HRA process (**Chapter 3**):

- Brecks sites: Breckland SPA and Breckland SAC
- Broads sites: Broads SAC and Broadland SPA
- East Coast sites: Breydon Water SPA, Winterton-Horsey Dunes SAC and Great Yarmouth and North Denes SPA
- Norfolk Valley Fens SAC
- North Coast sites: North Norfolk Coast SAC, North Norfolk Coast SPA, North Norfolk Coast Ramsar and the Wash and North Norfolk Coast SAC
- Roydon and Dersingham Bog SAC and Ramsar
- Suffolk sites: Benacre to Easton Bavents SPA
- The Wash: The Wash SPA, The Wash Ramsar and The Wash and North Norfolk Coast SAC

7.2 Baseline information

7.2.1 The Broads Plan indicates that more than eight million people a year visit the Broads National Park for recreational activities⁷². These visitors are attracted by the inland waterways, coast and other recreational offerings in the area.

7.2.2 Broads Authority monitoring data indicates that in 2022 there were 12,549 craft licenced to use the Broads with the majority being privately owned but a large number also registered to the boat hire industry⁷³. Other popular recreational activities set out in the Broads Plan include angling, walking, cycling, horse riding, visiting local sites of interest and the draw of local wildlife.

⁷² Broads Authority (2022) Broads Plan 2022-27. STEAM data for Broads and area of influence.

⁷³ Broads Authority (2022). Annual Monitoring Report 2021/2022.

- 7.2.3 Increased development has the potential to result in public access and disturbance pressures at habitats sites which can take the form of urbanisation and / or recreational impacts (as discussed in Section 3.6 and 3.7). Recreational activities including land and water-based pursuits can lead to impacts such as increased erosion of habitats through increased footfall, increased dog fouling causing the eutrophication of habitats, pressures on water related habitats and disturbance to birds from people and dogs. Urbanisation impacts can include vandalism, fly tipping, fragmentation of habitats, lighting and visual pollution and increased fire risk.
- 7.2.4 Whilst allocations set out in the Preferred Options consultation may not individually have an adverse impact upon a habitats site due to increased recreational pressure, when taken together cumulatively, and in-combination with growth in neighbouring LPA areas, there is the potential for adverse direct and indirect impacts upon their qualifying features.
- 7.2.5 The survey work commissioned in 2015 and 2016 to determine current and projected visitor patterns at habitats sites across Norfolk (see Section 3.6)⁷⁴ included 40 different survey locations where public access and the qualifying features of habitats site coincide. The results of these surveys highlight how an increase in recreational pressure (particularly at the North Coast, the Broads and the Valley Fens) is predicted to be linked to residential and tourism development across multiple local authority areas within Norfolk. This study took into consideration the in-combination impact of development from different LPA areas upon these habitats sites.
- 7.2.6 Recreational and urbanisation pressures are identified as a threat in the SIPs and Natural England's supplementary advice for the network of habitats sites within Norfolk and Suffolk (Appendix A). These threats may have direct impacts upon qualifying features and also indirect impacts upon areas of functionally linked land and / or water bodies.

7.3 Preliminary Appropriate Assessment

7.3.1 Policy POSP15 (Residential Development) indicates that the Authority will endeavour to enable housing delivery to meet its objectively assessed housing need (358 residential dwellings and 53 residential moorings) throughout the plan period (2021 to 2041). The Preferred Options Local Plan allocates the following sites for new development (as shown on Figure 7.1):

- Policy POBRU6: Brundall Gardens – up to six residential moorings;
- Policy POGIL1 Gillingham Residential Moorings – up to five residential moorings;
- POCHE1: Greenway Marine Residential Moorings – up to five residential moorings;
- Policy POLOD1: Loddon Marina Residential Moorings – up to ten residential moorings;
- Policy PONOR1: Utilities Site – 271 residential dwellings;
- Policy POSOM1: Somerleyton Marina Residential Moorings – up to fifteen residential moorings;
- Policy POSTO1 Land adjacent to Tiedam, Stokesby – four residential dwellings;

⁷⁴ Panter, C., Liley, D. & Lowen, S. (2016). Visitor surveys at European protected sites across Norfolk during 2015 and 2016. Unpublished report for Norfolk County Council. Footprint Ecology.

- Policy POTHU1: Tourism Development at Hedera House, Thurne – tourism uses; and
- Policy POSTA1: Land at Stalham Staithe (Richardson’s Boatyard) – up to ten residential moorings.

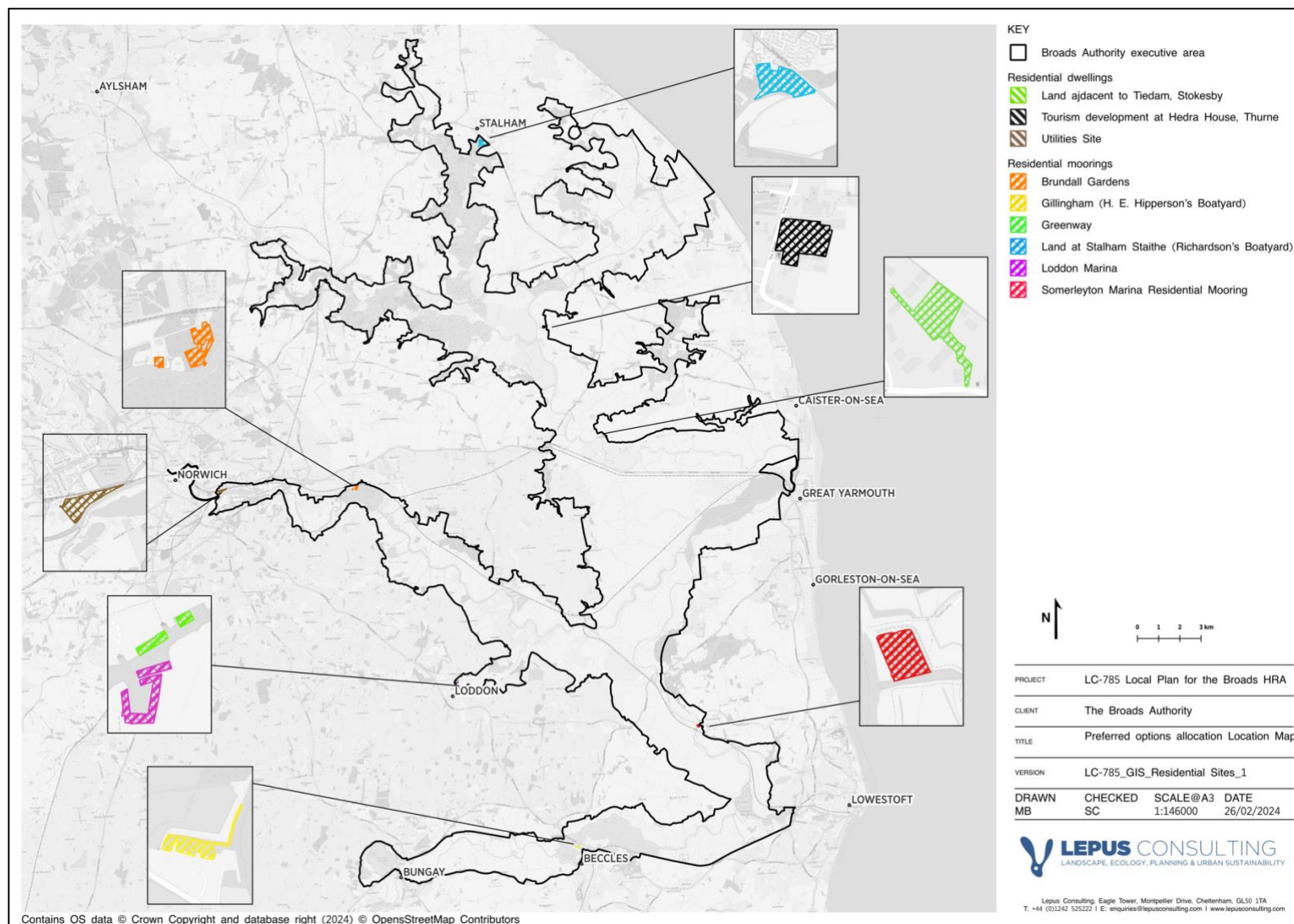


Figure 7.1: Preferred Options Local Plan allocations

- 7.3.2 As noted in Section 3.6, strategic mitigation solutions to address recreational pressures at habitats sites associated with new development in Suffolk and Norfolk have been produced. These are currently implemented by the Authority. These solutions are strategic in nature, considering cross boundary impacts associated with new development across administrative boundaries. Their implementation will ensure appropriate mitigation to address in-combination impacts which will be delivered for new development both inside and outside the Authority's executive area. These solutions currently identify a ZoI for residential development which covers the following areas:
- 12km Roydon and Dersingham Bog SAC and Ramsar
 - 13km Benacre to Easton Bavents SPA
 - 15km Norfolk Valley Fens SAC
 - 25km Broads Sites: The Broads SAC and the Broadland SPA and Ramsar
 - 26km Brecks Sites; Breckland SPA and SAC
 - 30km East Coast Sites: Breydon Water SPA, Winterton-Horsey Dunes SAC and Great Yarmouth and North Denes SPA
 - 42km North Coast Sites: North Norfolk Coast SAC, SPA, Ramsar and the Wash and North Norfolk Coast SAC
 - 61km The Wash: The Wash SPA, Ramsar and The Wash and North Norfolk Coast SAC
- 7.3.3 The number of ZoI for habitats sites in each LPA area varies depending on the geographical position, however, a single county wide tariff area is recommended for the sake of simplicity in the GIRAMS⁷⁵. This recommendation reflects the entirety of Norfolk including all partner LPAs and would see a common tariff amount for all net new dwellings in the county. This has been calculated from the RAMS mitigation package to cover the lifetime of the local plans in perpetuity.
- 7.3.4 Development applications must currently be accompanied by a project level HRA and provide appropriate mitigation which can include a contribution towards these strategic mitigation schemes and, where applicable (over 50 units or equivalent), provide an appropriate scale of GI to deliver alternative recreational space⁷⁶.
- 7.3.5 The Norfolk and Suffolk RAMS will continue to be secured through the following Local Plan policy.

⁷⁵ Place Services. March 2021. Draft subject to approval by the Norfolk Strategic Planning Group. Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy (GIRAMS). Habitats Regulations Strategy Document.

⁷⁶ Broads Authority planning guidance. Available at: <https://www.broads-authority.gov.uk/planning/planning-permission/habitat-mitigation>

Policy PODM16: Mitigating Recreational Impacts

1. Any development which results in a net increase in residential development and / or overnight tourism accommodation will need to put in place adequate measures to avoid and mitigate potential adverse recreational impacts on the integrity of Habitats Sites which are identified within the following strategies and Zones of Influence (ZOI):
 - a) Norfolk Recreational disturbance Avoidance and Mitigation Strategy (Norfolk RAMS) – covers the whole of Norfolk.
 - b) Suffolk Coast Recreation Disturbance Avoidance and Mitigation Strategy (Suffolk RAMS) - 13 km ZOI around the relevant Habitats Sites in the Suffolk Coast area.
2. Planning permission will be granted subject to demonstrating no adverse effect on the integrity of Habitats Sites from recreational disturbance when considered alone or in-combination.
3. Proposed adequate measures must be delivered prior to occupation of development, in perpetuity and agreed with Natural England.
4. For development over 50 units, the provision or enhancement of adequate green infrastructure, either on the development site or nearby, to provide for the informal recreational needs of residents as an alternative to visiting the Habitats Sites is required.

7.3.6 This policy will apply to the following developments:

- New homes
- Student accommodation
- Care homes
- Tourism attractions
- Tourist accommodation
- permitted development (which gives rise to new overnight accommodation) under the Town and Country Planning (General Permitted Development) (England) Order 2015
- Any development not involving overnight accommodation, but which may have non-sewerage water quality implications.

7.3.7 It will apply to all development coming forward through the Local Plan, including allocated sites and also any windfall development which is supported by the Local Plan.

7.3.8 All new development subject to this policy will need to put in place appropriate measures to avoid and mitigate potential adverse recreational impacts on the integrity of habitats sites which form part of the Norfolk and Suffolk RAMS schemes. This mitigation can be delivered through financial contributions towards these mitigation schemes.

- 7.3.9 The policy wording notes that a bespoke approach may be required for development comprising more than 50 dwellings and in more sensitive locations. This may include the requirement to provide GI in addition to financial contributions towards RAMS. A developer may also provide alternative bespoke mitigation, however this will need to be fit for purpose and agreed and approved with Natural England and the Broads Authority.
- 7.3.10 Policy PONOR1 (Utilities Site) allocates over 50 dwellings (271 residential dwellings) and will therefore need to demonstrate that it is able to deliver appropriate GI in line with policy requirements. Policy specific wording in PONOR1 incorporates the requirement for this allocation to comply with PODM16 and also provide recreational opportunities on site. The justification text notes the potential for this to be achieved at Whitlingham Country Park and through delivery of a pedestrian/cycle link across the Wensum and Yare between the City Centre and Whitlingham Country Park. Further details in relation to an appropriate level of GI will be considered in the Regulation 19 HRA AA as the plan develops.
- 7.3.11 It is also noted that all development will need to comply with Policy PODM10: Green Infrastructure. This policy notes that 'Development shall contribute to the delivery and management of green infrastructure that meets the needs of communities and biodiversity, both within and beyond the proposal's boundaries, including establishment of new and enhancement of existing green infrastructure'.
- 7.3.12 All mitigation must be in place prior to the occupation of development and delivered in perpetuity in order for it to be effective. This requirement is set out in Policy PODM16.
- 7.3.13 The Broads Authority also promotes a number of codes which aim to reduce the impact of recreational activities across the Broads and make them as sustainable as possible. For instance, there is guidance which promotes environmentally friendly boating⁷⁷ and codes of conduct for most waterway activities⁷⁸ including the Paddlers Code⁷⁹. The Broads website also promotes cycling, walking and horse riding routes to avoid sensitive areas⁸⁰ and requires visitors to follow a dog walking code of conduct⁸¹. These will have a mitigating effect upon recreational impacts.
- 7.3.14 As noted in Section 3.7 urbanisation effects are often considered through the application of a 400m buffer zone. In terms of urbanisation effects, there are a number of residential mooring allocations which are located within 400m of a habitats site, including:
- Policy POBRU6: Brundall Gardens – up to six residential moorings – less than 50m to the north of the Broads SAC, Broadland SPA and Broadland Ramsar – on the opposite side of the River Yare;

⁷⁷ Available at: <https://www.broads-authority.gov.uk/boating/owning-a-boat/environmentally-friendly-boating> [Date Accessed: 19/01/24].

⁷⁸ Available at: <https://www.broads-authority.gov.uk/boating/navigating-the-broads> [Date Accessed: 19/01/24].

⁷⁹ Available at: <https://paddlerscode.info/#enjoy> [Date Accessed: 19/01/24].

⁸⁰ Available at: <https://www.visitthebroads.co.uk/discover-the-broads/boating> [Date Accessed: 19/01/24].

⁸¹ Available at: <https://www.visitthebroads.co.uk/discover-the-broads/walking-and-cycling/bringing-your-dog> [Date Accessed: 19/01/24].

- Policy POTHU1: Tourism Development at Hedera House, Thurne – tourism uses – approximately 171m to the south of the Broads SAC, Broadland SPA and Broadland Ramsar; and
- Policy POSTA1: Land at Stalham Staithe (Richardson’s Boatyard) – up to ten residential moorings - approximately 254m to the north west of the Broads SAC, Broadland SPA and Broadland Ramsar.

7.3.15 The residential mooring allocation at Brundall Gardens is on the opposite side of the River Yare and therefore urbanisation effects are unlikely to have an adverse impact on the integrity of the Broads SAC, Broadland SPA and Broadland Ramsar.

7.3.16 Policy PODM14 (Natural Environment) will apply to all allocations, and any other windfall development which comes forward in the Local Plan. This policy includes requirements for development to comply with the Habitats Regulations and ensures no adverse impacts on the site integrity of any habitats site either alone or in-combination.

7.3.17 As set out in **Chapter 6**, the Local Plan for the Broads does not remove the requirement for lower tier recreation projects to be subject to HRA through the Habitats Regulations. Policy POTHU1 and Policy POSTA1 therefore contain protective policy wording to secure the protection of habitats sites from development at these sites including the requirement of project level HRA.

7.3.18 Taking into consideration the policy wording secured through the Local Plan, there is unlikely to be any adverse recreational or urbanisation impacts on site integrity from increased development alone or in-combination. However, the Local Plan will be reassessed through an updated AA at Regulation 19 to capture any changes and additional information which may be available.

8 Next Steps

8.1 Conclusions

8.1.1 This HRA report provides an assessment of the Preferred Options consultation which includes allocations and policies. It also presents an update on work undertaken in support of the HRA process at Issues and Options. It screens in LSEs at the following habitats sites which reflects the outputs of the Issues and Options HRA:

- Benacre to Easton Bavents SPA
- Breckland SPA
- Breckland SAC
- Breydon Water SPA
- Breydon Water Ramsar
- Broads SAC
- Broadland Ramsar
- Broadland SPA
- Dersingham Bog Ramsar
- Great Yarmouth and North Denes SPA
- Norfolk Valley Fens SAC
- North Norfolk Coast Ramsar
- North Norfolk Coast SAC
- North Norfolk Coast SPA
- Outer Thames Estuary SPA
- Redgrave and South Lopham Fens Ramsar
- River Wensum SAC
- Roydon and Dersingham Bog SAC
- Roydon Common Ramsar Ramsar
- The Wash and North Norfolk Coast SAC
- The Wash Ramsar
- The Wash SPA
- Waveney and Little Ouse Valley Fens SAC
- Winterton-Horsey Dunes SAC

8.1.2 This report also identifies information required to inform the AA at the Regulation 19 stage of the Plan making process. No final conclusions have been drawn at this stage in the process in terms of adverse impacts on the site integrity of any habitats site (alone or in combination).

8.2 Next steps

8.2.1 Screening will be revisited at Regulation 19 when the Local Plan is further developed to take into consideration any changes.

- 8.2.2 At Regulation 19 a full AA will be presented in support of the Publication Local Plan for the Broads which will allow the Authority, as the Competent Authority, to make the Integrity Test. The Authority will take into consideration representations from Natural England under the provisions of the Habitats Regulations at Regulation 105(2).

Appendix A: Habitats site conservation objectives, qualifying features, threats and pressures

The Broads SAC¹

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.

Qualifying Features:

H3140. Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.; Calcium-rich nutrient-poor lakes, lochs and pools

H3150. Natural eutrophic lakes with Magnopotamion or *Hydrocharition*-type vegetation; Naturally nutrient-rich lakes or lochs which are often dominated by pondweed

H6410. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinia caerulea*); Purple moor-grass meadows

H7140. Transition mires and quaking bogs; Very wet mires often identified by an unstable `quaking` surface

H7210. Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Calcium-rich fen dominated by great fen sedge (saw sedge)*

H7230. Alkaline fens; Calcium-rich springwater-fed fens

H91E0. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*); Alder woodland on floodplains*

S1016. *Vertigo moulinsiana*; Desmoulin`s whorl snail

S1355. *Lutra lutra*; Otter

S1903. *Liparis loeselii*; Fen orchid

S4056. *Anisus vorticulus*; Little whorlpool ram's-horn snail

* denotes a priority natural habitat or species (supporting explanatory text on following page)

Threats and pressures at habitats site which may be affected by the Broads Local Plan²:

- Water Pollution
- Hydrological changes
- Water Abstraction
- Public Access / Disturbance
- Air Pollution

Broadland SPA³

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Qualifying Features:

¹ Natural England (2014) The Broads SAC Conservation Objectives .Available at:
<https://publications.naturalengland.org.uk/publication/6190476679970816> [Date Accessed:12/01/24].

² Natural England (2014) Broadlands Site Improvement Plan. Available at:
<https://publications.naturalengland.org.uk/publication/5444118129934336> [Date Accessed:16/01/24].

³ Natural England (2014) Broadland SPA Conservation Objective. Available at:
<https://publications.naturalengland.org.uk/publication/5310905998901248> [Date Accessed: 12/01/24].

Broadland SPA³

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)

Threats and pressures at habitats site which may be affected by the Broads Local Plan⁴:

- Water Pollution
- Hydrological changes
- Water Abstraction
- Public Access / Disturbance
- Air Pollution

Broadland Ramsar⁵

Ramsar sites do not have Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
2	<p>The site supports a number of rare species and habitats within the biogeographical zone context, including the following Habitats Directive Annex I features:</p> <ul style="list-style-type: none"> • H7210 Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> Calcium-rich fen dominated by great fen sedge (saw sedge). • H7230 Alkaline fens Calcium-rich springwater-fed fens. • H91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) Alder woodland on floodplains <p>Annex II species</p> <ul style="list-style-type: none"> • S1016 <i>Vertigo moulinsiana</i> Desmoulin's whorl snail • S1355 <i>Lutra lutra</i> Otter • S1903 <i>Liparis loeselii</i> Fen orchid. <p>The site supports outstanding assemblages of rare plants and invertebrates including nine British Red Data Book plants and 136 British Red Data Book invertebrates.</p>
6	<p>Qualifying Species/populations (as identified at designation): Species with peak counts in winter:</p> <ul style="list-style-type: none"> • Tundra swan, <i>Cygnus columbianus bewickii</i>, NW Europe - 196 individuals, representing an average of 2.4% of the GB population (5-year peak mean 1998/9- 2002/3) • Eurasian wigeon, <i>Anas penelope</i>, NW Europe - 6769 individuals, representing an average of 1.6% of the GB population (5-year peak mean 1998/9-2002/3) • Gadwall, <i>Anas strepera strepera</i>, NW Europe - 545 individuals, representing an average of 3.1% of the GB population (5-year peak mean 1998/9- 2002/3)

⁴ Natural England (2014) Broadland Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/5444118129934336> [Date Accessed:16/01/24].

⁵ JNCC (2008) Information Sheet on Ramsar Wetlands. Broadlands Ramsar. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11010.pdf> [Date Accessed:17/01/24].

Ramsar Criterion	Justification for the application of each criterion
	<ul style="list-style-type: none"> Northern shoveler, <i>Anas clypeata</i>, NW & C Europe - 247 individuals, representing an average of 1.6% of the GB population (5-year peak mean 1998/9- 2002/3) <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6.</p> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> Pink-footed goose, <i>Anser brachyrhynchus</i>, Greenland, Iceland/UK - 4263 individuals, representing an average of 1.7% of the population (5-year peak mean 1998/9-2002/3) Greylag goose, <i>Anser anser anser</i>, Iceland/UK, Ireland - 1007 individuals, representing an average of 1.1% of the population (Source period not collated) <p>Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually</p>

Threats and Pressures at habitats site which may be affected by the Broads Local Plan⁶:

- Water Pollution
- Hydrological changes
- Water Abstraction
- Public Access / Disturbance
- Air Pollution

Breydon Water SPA⁷

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

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

Threats and pressures at habitats site which may be affected by the Broads Local Plan⁸:

- Public Access / Disturbance
- Hydrological changes

⁶ Natural England (2014) Broadlands Site Improvement Plan. Available at:
<https://publications.naturalengland.org.uk/publication/5444118129934336> [Date Accessed:16/01/24].

⁷ Natural England (2014) Breydon Water SPA Conservation Objectives. Available at:
<https://publications.naturalengland.org.uk/publication/6376690053808128> [Date Accessed:12/01/24].

⁸ Natural England (2014) Breydon Water SPA Site Improvement Plan. Available at:
<https://publications.naturalengland.org.uk/publication/6364048115367936> [Date Accessed: 16/01/24].

Breydon Water Ramsar⁹

Ramsar sites do not have Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
5	Assemblages of international importance: Species with peak counts in winter: 68175 waterfowl (5-year peak mean 1998/99-2002/2003)
6	Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in winter: <ul style="list-style-type: none"> • Pink-footed goose, <i>Anser brachyrhynchus</i>, Greenland, Iceland/UK - 5816 individuals, representing an average of 2.4% of the population (5-year peak mean 1998/9-2002/3) • Eurasian wigeon, <i>Anas penelope</i>, NW Europe- 15624 individuals, representing an average of 1% of the population (5-year peak mean 1998/9- 2002/3) • Northern shoveler, <i>Anas clypeata</i>, NW & C Europe - 478 individuals, representing an average of 1.1% of the population (5-year peak mean 1998/9- 2002/3) • European golden plover, <i>Pluvialis apricaria apricaria</i>, <i>P. a. altifrons</i> Iceland & Faroes/E Atlantic - 10656 individuals, representing an average of 1.1% of the population (5-year peak mean 1998/9-2002/3) • Black-tailed godwit, <i>Limosa limosa islandica</i>, Iceland/W Europe - 1100 individuals, representing an average of 3.1% of the population (5-year peak mean 1998/9-2002/3) Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually.

Threats and Pressures at habitats site which may be affected by the Broads Local Plan¹⁰:

No identified threats or pressures to Braydon Water Ramsar

Outer Thames Estuary SPA¹¹

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Qualifying features:

A001 *Gavia stellata*; Red-throated diver (Non-breeding)

A193 *Sterna hirundo*; Common tern (Breeding)

A195 *Sternula albifrons*; Little tern (Breeding)

⁹ JNCC (2008) Information Sheet on Ramsar Wetlands. Breydon Water Ramsar. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11008.pdf> [Date Accessed: 04/01/24].

¹⁰ JNCC (2008) Information Sheet on Ramsar Wetlands. Breydon Water Ramsar <https://jncc.gov.uk/jncc-assets/RIS/UK11008.pdf> [Date Accessed: 04/01/24].

¹¹ Natural England (2014) Outer Thames Estuary SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/4927106139029504> [Date Accessed: 12/01/24].

Outer Thames Estuary SPA¹¹

Threats and pressures at habitats site which may be affected by the Broads Local Plan¹²:
Within the Site improvement Plan there are not threats or pressures.

Great Yarmouth and North Denes SPA¹³

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site

Qualifying features:

A195 *Sterna albifrons*; Little tern (Breeding)

Threats and pressures at habitats site which may be affected by the Broads Local Plan¹⁴:

- Public Access / Disturbance
- Hydrological Changes
- Air Pollution

Winterton – Horsey Dunes SAC¹⁵

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

Qualifying features:

H2110. Embryonic shifting dunes

H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram

H2150. Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)*

H2190. Humid dune slacks

* denotes a priority natural habitat or species

Threats and pressures at habitats site which may be affected by the Broads Local Plan¹⁶:

- Public Access / Disturbance
- Hydrological Changes
- Air Pollution

¹² Natural England (2014) Outer Thames Estuary Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/4668757523824640> [Date Accessed:16/01/24].

¹³ Natural England (2014) Great Yarmouth and North Denes SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/5165293655556096> [Date Accessed:12/01/24].

¹⁴ Natural England (2014) Great Yarmouth Winterton Horsey Site Improvement Plan (to cover Great Yarmouth North Denes SPA and Winterton-Horsey Dunes SAC). Available at: <http://publications.naturalengland.org.uk/file/6277135286665216> [Date Accessed: 16/01/24].

¹⁵ Natural England (2014) Winterton – Horsey Dunes SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/5518326646177792> [Date Accessed:12/01/24].

¹⁶ Natural England (2018) Great Yarmouth Winterton Horsey Site Improvement Plan (to cover Great Yarmouth North Denes SPA and Winterton-Horsey Dunes SAC). Available at: <http://publications.naturalengland.org.uk/file/6277135286665216> [Date Accessed: 04/01/24].

Norfolk Valley Fens SAC¹⁷

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.

Qualifying features:

H4010. Northern Atlantic wet heaths with *Erica tetralix*; Wet heathland with cross-leaved heath H4030.

European dry heaths

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*FestucoBrometalia*); Dry grasslands and scrublands on chalk or limestone

H6410. Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Purple moor-grass meadows

H7210. Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Calcium-rich fen dominated by great fen sedge (saw sedge)*

H7230. Alkaline fens; Calcium-rich springwater-fed fens

H91E0. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*); Alder woodland on floodplains*

S1014. *Vertigo angustior*; Narrow-mouthed whorl snail

S1016. *Vertigo moulinsiana*; Desmoulin's whorl snail

* denotes a priority natural habitat or species (supporting explanatory text on following page)

Threats and pressures at habitats site which may be affected by the Broads Local Plan¹⁸:

- Hydrological changes
- Water Pollution
- Water Abstraction
- Air Pollution

¹⁷ Natural England (2014) Norfolk Valley Fens SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/6684666086031360> [Date Accessed:16/01/24].

¹⁸ Natural England (2014) Norfolk Valley Fens Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/6261291761008640> [Date Accessed: 16/01/24].

The Wash and North Norfolk Coast SAC¹⁹

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.

Qualifying features:

H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks

H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats

H1150. Coastal lagoons*

H1160. Large shallow inlets and bays

H1170. Reefs

H1310. Salicornia and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand

H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritima*)

H1420. Mediterranean and thermo-Atlantic *halophilous* scrubs (*Sarcocornetea fruticosi*); Mediterranean saltmarsh scrub

S1355. *Lutra lutra*; Otter

S1365. *Phoca vitulina*; Common seal

* denotes a priority natural habitat or species (supporting explanatory text on following page)

Threats and pressures at habitats site which may be affected by the Broads Local Plan²⁰:

- Public Access / Disturbance
- Air Pollution

North Norfolk Coast SAC²¹

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.

Qualifying features:

H1150. Coastal lagoons*

H1220. Perennial vegetation of stony banks; Coastal shingle vegetation outside the reach of waves H1420. Mediterranean and thermo-Atlantic *halophilous* scrubs (*Sarcocornetea fruticosi*); Mediterranean saltmarsh scrub

H2110. Embryonic shifting dunes

H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram

H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland*

H2190. Humid dune slacks

¹⁹ Natural England (2017) The Wash & North Norfolk Coast SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/5950176598425600> [Date Accessed: 16/01/24].

²⁰ Natural England (2017) The Wash & North Norfolk Coast SAC Site Improvement Plan. Available at: <http://publications.naturalengland.org.uk/publication/5327498292232192> [Date Accessed: 16/01/24].

²¹ Natural England (2014) North Norfolk Coast SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/6270240262455296> [Date Accessed: 16/01/24].

North Norfolk Coast SAC²¹

S1355. *Lutra lutra*; Otter

S1395. *Petalophyllum ralfsii*; Petalwort

* denotes a priority natural habitat or species (supporting explanatory text on following page)

Threats and Pressures at habitats site which may be affected by the Broads Local Plan²²:

- Public Access / Disturbance
- Air Pollution

North Norfolk Coast SPA²³

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site

Qualifying features:

A021 *Botaurus stellaris*; Great bittern (Breeding)

A040 *Anser brachyrhynchus*; Pink-footed goose (Non-breeding)

A046a *Branta bernicla bernicla*; Dark-bellied brent goose (Non-breeding)

A050 *Anas penelope*; Eurasian wigeon (Non-breeding)

A081 *Circus aeruginosus*; Eurasian marsh harrier (Breeding)

A084 *Circus pygargus*; Montagu's harrier (Breeding)

A132 *Recurvirostra avosetta*; Pied avocet (Breeding)

A143 *Calidris canutus*; Red knot (Non-breeding)

A191 *Sterna sandvicensis*; Sandwich tern (Breeding)

A193 *Sterna hirundo*; Common tern (Breeding)

A195 *Sterna albifrons*; Little tern (Breeding) Waterbird assemblage

Threats and Pressures at habitats site which may be affected by the Broads Local Plan²⁴:

- Public Access / Disturbance
- Air Pollution

North Norfolk Ramsar²⁵

Ramsar sites do not have Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
1	The site is one of the largest expanses of undeveloped coastal habitat of its type in Europe. It is a particularly good example of a marshland coast with intertidal sand and mud, saltmarshes,

²² Natural England (2014) The Wash and North Norfolk Coast Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/5327498292232192> [Date Accessed: 16/01/24].

²³ Natural England (2014) North Norfolk Coast SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/4732349359063040> [Date Accessed:16/01/24].

²⁴ Natural England (2014) The Wash And North Norfolk Coast Site Improvement Plans. Available at: <https://publications.naturalengland.org.uk/publication/5327498292232192> [Date Accessed: 16/01/24].

²⁵ JNCC (2008) Information Sheet on Ramsar Wetlands. North Norfolk Ramsar. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11048.pdf> [Date Accessed:17/01/24].

Ramsar Criterion	Justification for the application of each criterion
	shingle banks and sand dunes. There are a series of brackish-water lagoons and extensive areas of freshwater grazing marsh and reed beds.
2	Supports at least three British Red Data Book and nine nationally scarce vascular plants, one British Red Data Book lichen and 38 British Red Data Book invertebrates.
5	Assemblages of international importance: Species with peak counts in winter: 98462 waterfowl (5-year peak mean 1998/99-2002/2003)
6	<p>Qualifying Species/populations (as identified at designation):</p> <p>Species regularly supported during the breeding season:</p> <ul style="list-style-type: none"> Sandwich tern, <i>Sterna (Thalasseus) sandvicensis sandvicensis</i>, W Europe - 4275 apparently occupied nests, representing an average of 7.7% of the breeding population (Seabird 2000 Census) Common tern, <i>Sterna hirundo hirundo</i>, N & E Europe - 408 apparently occupied nests, representing an average of 4% of the GB population (Seabird 2000 Census) Little tern, <i>Sterna albifrons albifrons</i>, W Europe - 291 apparently occupied nests, representing an average of 2.5% of the breeding population (Seabird 2000 Census) <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> Red knot, <i>Calidris canutus islandica</i>, W & Southern Africa (wintering) - 30781 individuals, representing an average of 6.8% of the population (5-year peak mean 1998/9-2002/3) <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> Pink-footed goose, <i>Anser brachyrhynchus</i>, Greenland, Iceland/UK - 16787 individuals, representing an average of 6.9% of the population (5-year peak mean 1998/9-2002/3) Dark-bellied brent goose, <i>Branta bernicla bernicla</i>, - 8690 individuals, representing an average of 4% of the population (5-year peak mean 1998/9- 2002/3) Eurasian wigeon, <i>Anas penelope</i>, NW Europe - 17940 individuals, representing an average of 1.1% of the population (5-year peak mean 1998/9-2002/3) Northern pintail, <i>Anas acuta</i>, NW Europe - 1148 individuals, representing an average of 1.9% of the population (5-year peak mean 1998/9-2002/3) <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6.</p> <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> Ringed plover, <i>Charadrius hiaticula</i>, Europe/Northwest Africa - 1740 individuals, representing an average of 2.3% of the population (5-year peak mean 1998/9-2002/3) Sanderling, <i>Calidris alba</i>, Eastern Atlantic - 1303 individuals, representing an average of 1% of the population (5-year peak mean 1998/9- 2002/3) Bar-tailed godwit, <i>Limosa lapponica lapponica</i>, W Palearctic - 3933 individuals, representing an average of 3.2% of the population (5-year peak mean 1998/9-2002/3) <p>Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually.</p>

Threats and Pressures at habitats site which may be affected by the Broads Local Plan:

No threats or pressures were identified for North Norfolk Coast Ramsar.

River Wensum SAC²⁶

Conservation objectives:

²⁶ Natural England (2014) River Wensum SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/6039440396910592> [Date Accessed: 18/01/24].

River Wensum SAC²⁶

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.

Qualifying features:

H3260. Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot

S1016. *Vertigo moulinsiana*; Desmoulin's whorl snail

S1092. *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish

S1096. *Lampetra planeri*; Brook lamprey

S1163. *Cottus gobio*; Bullhead

Threats and Pressures at habitat site which may be affected by the Broads Local Plan²⁷:

- Water Pollution and Abstraction

Waveney and Little Ouse Valley Fens SAC²⁸

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.

Qualifying features:

H6410. Molinia meadows on calcareous, peaty, or clayey-silt-laden soils (*Molinia caerulea*); Purple moor-grass meadows

H7210. Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Calcium-rich fen dominated by great fen sedge (saw sedge) *

S1016. *Vertigo moulinsiana*; Desmoulin's whorl snail

* denotes a priority natural habitat or species

Threats and Pressures at habitat site which may be affected by the Broads Local Plan²⁹:

- Air Pollution
- Water Pollution

Redgrave and South Lopham Fens Ramsar³⁰

²⁷ Natural England (2014) River Wensum SAC Site Improvement Plan. Available at:

<https://publications.naturalengland.org.uk/publication/6720168281505792> [Date Accessed:18/01/24].

²⁸ Natural England (2014) Waveney and Little Ouse Valley Fens SAC Conservation Objectives. Available at:

<https://publications.naturalengland.org.uk/publication/4749900759695360> [Date Accessed:18/01/24].

²⁹ Natural England (2014) Waveney and Little Ouse Valley Fens SAC Site Improvement Plan. Available at:

<https://publications.naturalengland.org.uk/publication/5465193064693760> [Date Accessed: 18/01/24].

³⁰ JNCC (2008) Information Sheet on Ramsar Wetlands. Redgrave and South Lopham Fens. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11056.pdf> [Date Accessed:17/01/24].

Ramsar sites do not have Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
1	The site is an extensive example of spring-fed lowland base-rich valley, remarkable for its lack of fragmentation.
2	The site supports many rare and scarce invertebrates, including a population of the fen raft spider <i>Dolomedes plantarius</i> .
3	The site supports many rare and scarce invertebrates, including a population of the fen raft spider <i>Dolomedes plantarius</i> . The diversity of the site is due to the lateral and longitudinal zonation of the vegetation types characteristic of valley mires.

Threats and Pressures at habitats site which may be affected by the Broads Local Plan:

No threats or pressures were identified for Redgrave and South Lopham Fens Ramsar.

Breckland SPA³¹

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Qualifying features:

A133 *Burhinus oedipnemus*; Stone-curlew (Breeding)

A224 *Caprimulgus europaeus*; European nightjar (Breeding)

A246 *Lullula arborea*; Woodlark (Breeding)

Threats and Pressures at habitat site which may be affected by the Broads Local Plan³²:

- Water Pollution
- Air Pollution
- Public Access and disturbance
- Habitat Fragmentation

Breckland SAC³³

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

³¹ Natural England (2014) Breckland SPA Conservation Objectives. Available at:
<https://publications.naturalengland.org.uk/publication/4572292419944448> [Date Accessed:18/01/24].

³² Natural England (2014) Breckland SPA Site Improvement Plan. Available at:
<https://publications.naturalengland.org.uk/publication/5075188492271616> [Date Accessed: 18/01/24].

³³ Natural England (2014) Breckland SAC Conservation Objectives. Available at:
<https://publications.naturalengland.org.uk/publication/6145904885104640> [Date Accessed:18/01/24].

- 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.

Qualifying features:

H2330. Inland dunes with open *Corynephorus* and *Agrostis* grasslands; Open grassland with grey-hair grass and common bent grass of inland dunes

H3150. Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation; Naturally nutrient-rich lakes or lochs which are often dominated by pondweed

H4030. European dry heaths

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*FestucoBrometalia*); Dry grasslands and scrublands on chalk or limestone

H91E0. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*); Alder woodland on floodplains*

S1166. *Triturus cristatus*; Great crested newt

* denotes a priority natural habitat or species

Threats and Pressures at habitat site which may be affected by the Broads Local Plan³⁴:

- Water Pollution
- Air Pollution
- Public Access and disturbance
- Habitat Fragmentation

Roydon and Dersingham Bog SAC³⁵

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
- The structure and function (including typical species) of qualifying natural habitats, and
- The supporting processes on which qualifying natural habitats rely

Qualifying features:

H4010. Northern Atlantic wet heaths with *Erica tetralix*; Wet heathland with cross-leaved heath H4030.

European dry heaths

H7150. Depressions on peat substrates of the *Rhynchosporion*

Threats and Pressures at habitat site which may be affected by the Broads Local Plan³⁶:

- Hydrological changes
- Air Pollution
- Water Pollution

Dersingham Bog Ramsar³⁷

Ramsar sites do not have Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

³⁴ Natural England (2014) Breckland SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/5075188492271616> [Date Accessed: 18/01/24].

³⁵ Natural England (2014) Roydon Common and Dersingham Bog SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/4858619669512192> [Date Accessed: 18/01/24].

³⁶ Natural England (2014) Roydon Common and Dersingham Bog SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/4809467120058368> [Date Accessed: 18/01/24].

³⁷ JNCC (2008) Information Sheet on Ramsar Wetlands. Dersingham Bog Ramsar. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11019.pdf> [Date Accessed: 17/01/24]

Ramsar Criterion	Justification for the application of each criterion
2	Ramsar criterion 2 Supports an important assemblage of invertebrates - nine British Red Data Book species have been recorded.

Threats and Pressures at habitats site which may be affected by the Broads Local Plan:

No threats or pressures were identified for Roydon and Dersingham Bog Ramsar.

Roydon Common Ramsar³⁸

Ramsar sites do not have Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
2	Ramsar criterion 2 Supports an important assemblage of invertebrates - nine British Red Data Book species have been recorded.

Threats and Pressures at habitats site which may be affected by the Broads Local Plan:

No threats or pressures were identified for Roydon Common Ramsar.

Benacre to Easton Bavents SPA³⁹

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site

Qualifying features:

A021 *Botaurus stellaris*; Great bittern (Breeding)

A081 *Circus aeruginosus*; Eurasian marsh harrier (Breeding)

A195 *Sterna albifrons*; Little tern (Breeding)

Threats and pressures at habitat site which may be affected by the Broads Local Plan⁴⁰:

- Public Access / Disturbance
- Water Pollution

³⁸ JNCC (2008) Information Sheet on Ramsar Wetlands. Roydon Common Ramsar. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11061.pdf> [Date Accessed: 17/01/24]

³⁹ Natural England (2014) Benacre to Easton Bevent SPA Conservation Objective. Available at: <https://publications.naturalengland.org.uk/publication/4750287944286208> [Date Accessed: 16/01/24]

⁴⁰ Natural England (2014) Benacre to Easton Bavents Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/4812476415737856> [Date Accessed: 16/01/24].

The Wash SPA⁴¹

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;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Qualifying features:

A037 *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding)
A040 *Anser brachyrhynchus*; Pink-footed goose (Non-breeding)
A046a *Branta bernicla bernicla*; Dark-bellied brent goose (Non-breeding)
A048 *Tadorna tadorna*; Common shelduck (Non-breeding)
A050 *Anas penelope*; Eurasian wigeon (Non-breeding)
A051 *Anas strepera*; Gadwall (Non-breeding)
A054 *Anas acuta*; Northern pintail (Non-breeding)
A065 *Melanitta nigra*; Black (common) scoter (Non-breeding)
A067 *Bucephala clangula*; Common goldeneye (Non-breeding)
A130 *Haematopus ostralegus*; Eurasian oystercatcher (Non-breeding)
A141 *Pluvialis squatarola*; Grey plover (Non-breeding)
A143 *Calidris canutus*; Red knot (Non-breeding)
A144 *Calidris alba*; Sanderling (Non-breeding)
A149 *Calidris alpina alpina*; Dunlin (Non-breeding)
A156 *Limosa limosa islandica*; Black-tailed godwit (Non-breeding)
A157 *Limosa lapponica*; Bar-tailed godwit (Non-breeding)
A160 *Numenius arquata*; Eurasian curlew (Non-breeding)
A162 *Tringa totanus*; Common redshank (Non-breeding)
A169 *Arenaria interpres*; Ruddy turnstone (Non-breeding)
A193 *Sterna hirundo*; Common tern (Breeding)
A195 *Sterna albifrons*; Little tern (Breeding)

Waterbird assemblage

Threats and Pressures at habitat site which may be affected by the Broads Local Plan⁴²:

- Public Access / Disturbance
- Coastal Squeeze
- Air Pollution: impact of atmospheric nitrogen deposition

The Wash Ramsar⁴³

Ramsar sites do not have Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

⁴¹ Natural England (2014) The Wash SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/5747661105790976> [Date Accessed: 16/01/24].

⁴² Natural England (2018) The Wash SPA Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/5327498292232192> [Date Accessed: 04/01/24].

⁴³ JNCC (2008) Information Sheet on Ramsar Wetlands. The Wash. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11072.pdf> [Date Accessed: 16/02/24].

Ramsar Criterion	Justification for the application of each criterion
1	The Wash is a large shallow bay comprising very extensive saltmarshes, major intertidal banks of sand and mud, shallow water and deep channels.
3	Qualifies because of the inter-relationship between its various components including saltmarshes, intertidal sand and mud flats and the estuarine waters. The saltmarshes and the plankton in the estuarine water provide a primary source of organic material which, together with other organic matter, forms the basis for the high productivity of the estuary.
5	Assemblages of international importance: Species with peak counts in winter: 292541 waterfowl (5-year peak mean 1998/99-2002/2003)
6	<p>Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> Eurasian oystercatcher, <i>Haematopus ostralegus ostralegus</i>, Europe & NW Africa -wintering 15616 individuals, representing an average of 1.5% of the population (5-year peak mean 1998/9-2002/3) Grey plover, <i>Pluvialis squatarola</i>, E Atlantic/W Africa -wintering 13129 individuals, representing an average of 5.3% of the population (5-year peak mean 1998/9-2002/3 - spring peak) Red knot, <i>Calidris canutus islandica</i>, W & Southern Africa (wintering) 68987 individuals, representing an average of 15.3% of the population (5-year peak mean 1998/9-2002/3) Sanderling, <i>Calidris alba</i>, Eastern Atlantic 3505 individuals, representing an average of 2.8% of the population (5-year peak mean 1998/9-2002/3) Eurasian curlew, <i>Numenius arquata arquata</i>, <i>N. a. arquata</i> Europe (breeding) 9438 individuals, representing an average of 2.2% of the population (5-year peak mean 1998/9-2002/3) Common redshank, <i>Tringa totanus totanus</i>, 6373 individuals, representing an average of 2.5% of the population (5-year peak mean 1998/9-2002/3) Ruddy turnstone, <i>Arenaria interpres interpres</i>, NE Canada, Greenland/W Europe & NW Africa 888 individuals, representing an average of 1.7% of the GB population (5-year peak mean 1998/9- 2002/3) <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> Pink-footed goose, <i>Anser brachyrhynchus</i>, Greenland, Iceland/UK 29099 individuals, representing an average of 12.1% of the population (5-year peak mean 1998/9-2002/3) Dark-bellied brent goose, <i>Branta bernicla bernicla</i>, 20861 individuals, representing an average of 9.7% of the population (5-year peak mean 1998/9-2002/3) Common shelduck, <i>Tadorna tadorna</i>, NW Europe 9746 individuals, representing an average of 3.2% of the population (5-year peak mean 1998/9-2002/3) Northern pintail, <i>Anas acuta</i>, NW Europe 431 individuals, representing an average of 1.5% of the GB population (5-year peak mean 1998/9- 2002/3) Dunlin, <i>Calidris alpina alpina</i>, W Siberia/W Europe 36600 individuals, representing an average of 2.7% of the population (5-year peak mean 1998/9-2002/3) Bar-tailed godwit, <i>Limosa lapponica lapponica</i>, W Palearctic 16546 individuals, representing an average of 13.7% of the population (5-year peak mean 1998/9-2002/3) <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6.</p> <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> Ringed plover, <i>Charadrius hiaticula</i>, Europe/Northwest Africa 1500 individuals, representing an average of 2% of the population (5-year peak mean 1998/9- 2002/3) Black-tailed godwit, <i>Limosa limosa islandica</i>, Iceland/W Europe 6849 individuals, representing an average of 19.5% of the population (5-year peak mean 1998/9-2002/3) <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> European golden plover, <i>Pluvialis apricaria apricaria</i>, <i>P. a. altifrons</i> Iceland & Faroes/E Atlantic 22033 individuals, representing an average of 2.3% of the population (5-year peak mean 1998/9-2002/3) Northern lapwing, <i>Vanellus vanellus</i>, Europe - breeding 46422 individuals, representing an average of 1.3% of the population (5-year peak mean 1998/9-2002/3) <p>Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually.</p>

Threats and Pressures at habitats site which may be affected by the Broads Local Plan:

No threats or pressures were identified for The Wash Ramsar.

Appendix B: Preliminary screening of preferred options consultation

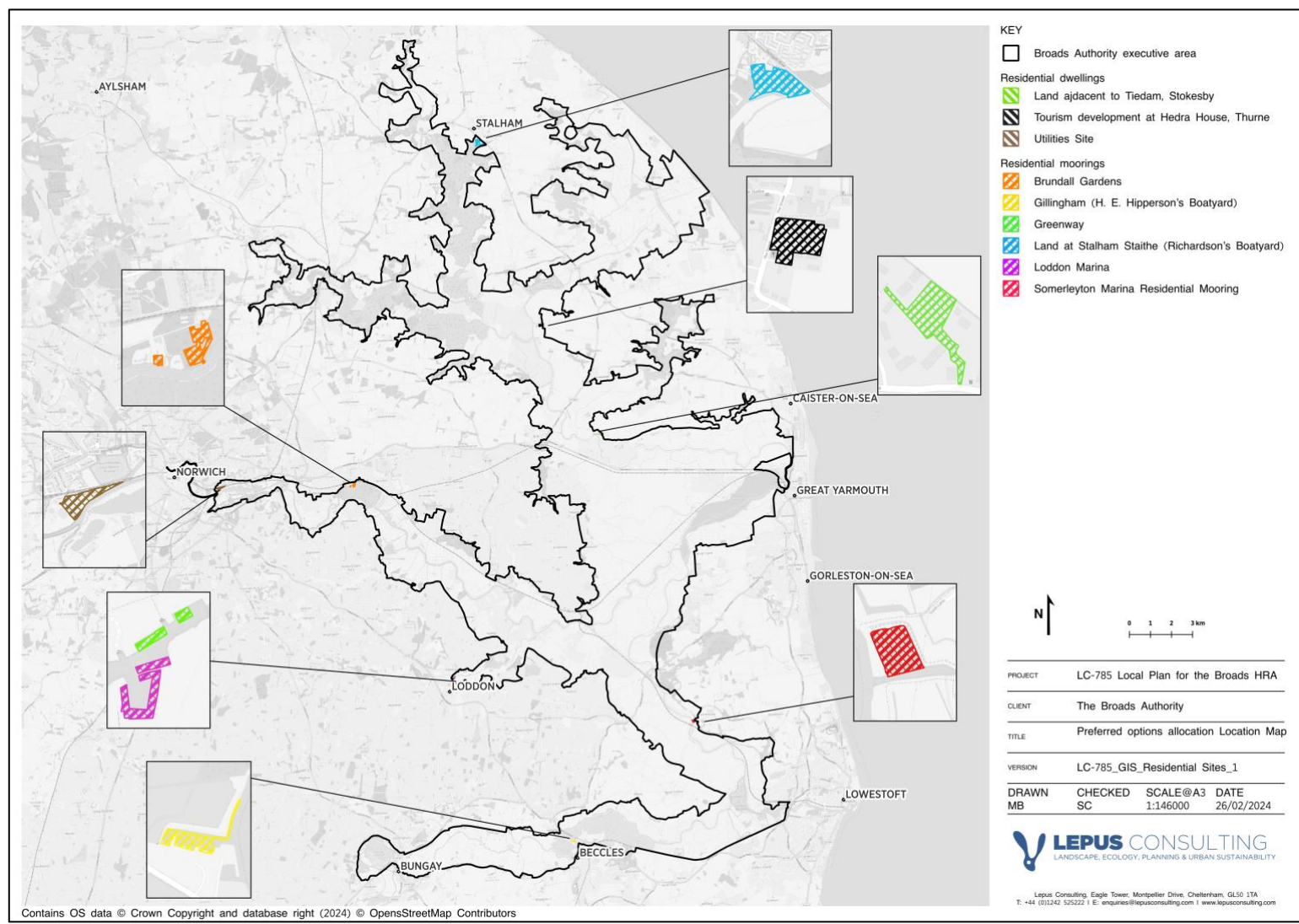


Figure B.1: Preferred Options allocation location map

The following section of Appendix B provides a preliminary screening assessment of each component of the Preferred Options version of the Local Plan for the Broads.

Chapter 1 – 9

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
n/a	n/a	These chapters provide administrative text, background, and context for the Local Plan.	Administrative text	Screen out

Chapter 10: Vision

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
n/a	Vision	This section sets out the overall vision from the Broads Plan. These are general aspirations and will have no LSE on any habitats site alone or in-combination.	Administrative text	Screen out
n/a	Objectives	The objectives of the Local Plan are general policy aspirations. They will not deliver any change on their own. They will be screened out as they will not have an LSE on any habitats site alone or in-combination.	Administrative text	Screen out

Chapter 11: The rest of the Preferred Options Local Plan

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
n/a	n/a	This chapter sets out the approach to policy making.	Administrative text	Screen out

Chapter 12: Sustainable development in the Broads

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM1	Major development in the Broads	This policy sets out circumstances where major development would be supported. It does not allocate any development or trigger any change. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM2	Embodied Carbon	This policy is a Plan wide environmental protection policy in relation to embodied carbon. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE on any habitats site itself and would not be considered further in the HRA process.	Category F	Screen out

Chapter 13: Climate Change

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
Policy POSP1	Responding to the climate emergency	This policy is a Plan wide environmental protection policy focusing on climate change. It does not allocate any development or trigger any change. This policy is unlikely to have LSE on any habitats site itself and would not be considered further in the HRA process.	Category D	Screen out
PODM3	Climate Change adaption and resilience checklist	This policy is a Plan wide environmental protection policy in relation to Climate Change. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE on any habitats site itself and would not be considered further in the HRA process.	Category D	Screen out

Chapter 14: Water use and quality

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM4	Water quality and foul drainage	This policy is a Plan wide environmental protection policy to protect water quality. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs and will be screened out of the HRA process.	Category D	Screen out
PODM5	Boat wash – down facilities	This policy positively protects water quality. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs and will be screened out of the HRA process.	Category D	Screen out
PODM6	Water efficiency and re – use	This policy is a Plan wide environmental protection policy to improve water efficiency and reduce water use. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs and will be screened out of the HRA process.	Category D	Screen out

Chapter 15: Flooding

Policy number	Policy number	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP2	Strategic flood risk policy	This policy is a Plan wide environmental protection policy in relation to flood risk. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs on any habitats site itself and would not be considered further in the HRA process.	Category D	Screen out
PODM7	Development and flood risk	This policy is a Plan wide environmental protection policy in relation to flood risk. It does not allocate any development or	Category D	Screen out

Policy number	Policy number	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs on any habitats site itself and would not be considered further in the HRA process.		
PODM8	Surface water run – off	This policy is a Plan wide environmental protection policy in relation to surface water run-off. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs on any habitats site itself and would not be considered further in the HRA process.	Category D	Screen out

Chapter 16: Open space, play and allotments

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM9	Open space on land, play space, sports fields, and allotments	This policy sets out protections for existing open space provision and requirements for new provisions. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out

Chapter 17: Green Infrastructure

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM10	Green Infrastructure	The GI element of this policy will have a positive impact upon habitats sites. The 'promotion' of new rights of way and access into the surrounding area will need to be mindful of potential LSEs from increased recreational pressure at sensitive habitats sites, depending on location – to be assessed on a site-by-site basis. This policy will therefore be screened into the HRA process.	Category I	Screen in

Chapter 18: Soils

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP3	Soils	This policy sets out criteria to ensure the protection of soils. It is a Plan wide environmental protection policy and does not allocate any development or trigger any change. As such this policy is unlikely to have LSEs on any habitats site and will be screened out of the HRA process.	Category D	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM11	Peat soils	This policy sets out criteria to ensure the protection of peat soils. It is a Plan wide environmental protection policy and does not allocate any development or trigger any change. As such this policy is unlikely to have LSEs on any habitats site and will be screened out of the HRA process.	Category D	Screen out

Chapter 19: Heritage and historic assets

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP4	Historic environments	This policy seeks to protect the historic environment and is a Plan wide environmental protection policy. It will not trigger any development or change. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category D	Screen out
PODM112	Heritage assets	This policy aims to protect heritage assets and is a Plan wide environmental protection policy. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category D	Screen out
PODM13	Re-use, conversion or change of use of historic buildings	This policy aims to protect historic buildings setting and provides a list of criteria for their re-use. It also supports the re-use, conversion and change of use of historical buildings. Should re-uses relate to residential / tourism development there may be an in-combination LSE with other plans and projects on a habitats site in terms of increased recreational and nutrient impacts. Taking a precautionary approach this policy will therefore be screened into the HRA process for further consideration.	Category L	Screen in

Chapter 20: Natural environment

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP5	Biodiversity	This policy is a Plan wide environmental protection policy in respect of biodiversity and will have a positive effect upon habitats sites. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs and will be screened out of the HRA process.	Category D	Screen out
POSP14	Natural environment	This policy is a Plan wide environmental protection policy in respect of protected sites. It does not allocate any development or trigger any change which would impact a habitats site. However, it provides mitigation wording and will therefore be screened into the HRA process.	Category M	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM15	Biodiversity Net Gain	This policy sets out the expectations in terms of Biodiversity Net Gain and will have a positive impact upon habitats sites. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have LSEs and will be screened out of the HRA process.	Category D	Screen out
PODM16	Mitigating recreational impacts	This policy secures mitigation for recreational impacts at habitats sites to ensure compliance with Norfolk and Suffolk RAMS schemes. It provides mitigation wording and will therefore be screened into the HRA process.	Category M	Screen in
PODM17	Mitigating nutrient enrichment impacts	This policy secures mitigation for nutrient impacts at habitats sites. It provides mitigation wording and will therefore be screened into the HRA process.	Category M	Screen in

Chapter 21: Renewable energy

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM18	Energy demand and performance of new buildings (including extensions)	This policy is a Plan wide environmental protection policy in relation to energy demand. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE on any habitats site itself and would not be considered further in the HRA process.	Category F	Screen out
PODM19	Renewable and low carbon energy	Renewable energy has the potential to have an adverse impact upon mobile features for which several habitats sites are designated e.g. birds. Selection of any sites for allocation will need to ensure compliance with best practice guidance such as: Natural England (2017) Evidence review of the impact of solar farms on birds, bats, and general ecology (NEER 012) ¹ . RSPB (2017) Solar Power Briefing Note. ² This policy has the potential to have an LSE at habitats sites in the study area and will therefore be screened into the HRA process for further consideration.	Category L	Screen in

¹ Natural England (2017) Evidence review of the impacts if solar farms on birds, bats and general ecology 2016 (NEER012). Available at: <http://publications.naturalengland.org.uk/publication/6384664523046912> [Date Accessed: 22/02/24].

²RSPB (2023) Working with solar developments to tackle the climate and ecological emergencies. Available at: <https://community.rspb.org.uk/ourwork/b/actionfornature/posts/working-with-solar-developments-to-tackle-the-climate-and-ecological-emergencies> [Date Accessed: 22/02/24].

Chapter 22: Landscape character

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP6	Landscape character	This policy aims to protect landscape character and is a Plan wide environmental protection policy. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category D	Screen out
PODM20	Development and landscape	This policy aims to protect landscape characteristics and is a Plan wide environmental protection policy. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category D	Screen out
PODM21	Land raising	This policy sets criteria for proposals which involve land raising. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM22	Excavated material	This policy sets criteria regarding excavated material. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM23	Utilities infrastructure development	This policy sets out criteria which must be met for utilities infrastructure and associated development. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM24	Trees, woodland, hedges, scrub and shrub and development	This policy provides protection for trees, woodland, hedges, scrub, and shrub. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM25	Protection and enhancement of settlement fringe landscape character	This policy aims to protect the Broads landscape and is a Plan wide environmental protection policy. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out

Chapter 23: Amenity

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM26	Amenity	The policy sets out the intentions for the high standards of amenities to ensure a suitable living environment. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out

Chapter 24: Tranquillity and Light Pollution

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP7	Tranquillity in the Broads	This policy is a Plan wide environmental protection policy to protect tranquillity in the Broads. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out
PODM27	Light pollution and dark skies	This policy is a Plan wide environmental protection policy in respect of light pollution and dark skies. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out

Chapter 25: Transport

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP8	Accessibility and transport	This policy promotes the reduction of travel, use of alternative forms of transport (e.g. public and electric) and active travel options. It will have a positive impact upon air quality at habitats sites. It does however contain wording which notes 'The improvement of access to and views of the waterside by the introduction of additional footpaths and cycle ways;'. This may increase access to areas of the waterside which may be part of habitats site designations – depending on location. LSEs are therefore possible, and this policy will be screened into the HRA assessment for further consideration. It is noted that protective policy wording is also included to mitigate for these impacts which will be considered in the HRA process.	Category M and L	Screen in
POSP9	Recreational access around the Broads Area	This policy promotes access to waterside areas which may be designated as habitats sites. This policy will therefore be screened into the HRA process. Wording is included which only permits improved access where adverse impacts on the natural and historic environment have been considered and addressed in line with other policies in this Local Plan. LSEs are therefore possible, and this policy will be screened into the HRA assessment for further consideration. The protective policy wording will also be considered in the HRA process.	Category M and L	Screen in
PODM23	Transport, highways and access	This policy promotes the reduction of travel, use of alternative forms of transport (e.g. public and electric) and	Category M and L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		active travel options. It will have a positive impact upon air quality at habitats sites. It does however contain wording which supports improvement of access to the waterside. This may increase access to areas of the waterside which may be covered by habitat sites designations – depending on location. LSEs are therefore possible, and this policy will be screened into the HRA assessment for further consideration. It is noted that protective policy wording is also included to mitigate for these impacts which will also be considered in the HRA process.		
PODM29	Recreational facilities parking areas	This policy sets out requirements in terms of parking facilities. It supports limited parking and as such, depending on location of car parks, may have an LSE at a habitats site. This policy will be screened into the HRA assessment for further consideration. It is noted that protective policy wording is also included to mitigate for these impacts which will also be considered in the HRA process.	Category M and L	Screen in

Chapter 26: The Broads economy

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP10	A prosperous local economy	This policy does not allocate any employment sites and therefore does not trigger any change or development directly. It sets a list of criteria that applications for employment must meet in order to be supported. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM30	New employment development	This policy does not allocate any employment sites and therefore does not trigger any change or development directly. It sets a list of criteria that applications for employment must meet in order to be supported. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM31	Protecting general employment	This policy protects employment uses. It sets general acceptability criteria where change may be supported. It does not trigger development or a change. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM32	Farm diversification	This policy supports farm diversification / new development / farm shops provided several criteria are met. It does not allocate development itself or trigger any direct change. The location of the potential development supported by this policy is however unknown.	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		This policy will therefore be screened into the HRA process.		
POSP11	Waterside sites	This policy does not allocate any employment sites and therefore does not trigger any change or development directly. It sets a list of criteria to protect employment and commercial waterside sites. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
PODM33	Development on waterside in employment or commercial use, including boatyards	This policy does not allocate any employment sites and therefore does not trigger any change or development directly. It however supports development of new boatsheds and other buildings at waterside sites to meet operational requirements, subject to several criteria. This policy therefore has the potential to have an LSE and will be screened into the HRA process.	Category L	Screen in

Chapter 27: Retail

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM34	Retail development in the Broads	This policy sets out criteria for retail development. The policy does not allocate any development itself or trigger any change. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out

Chapter 28: Sustainable tourism

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP12	Sustainable tourism	This policy sets requirements for sustainable tourism by the creation, enhancement and expansion of high quality and inclusive tourism attractions and related infrastructure. Tourism development has the potential to have a likely significant recreational impact upon several sensitive habitats sites. As such this policy will be screened into the HRA process.	Category L	Screen in
PODM35	Sustainable tourism and recreational development	This policy sets requirements in relation to the location and principles for sustainable tourism and recreation development. Tourism development has the potential to have a likely significant recreational impact upon several sensitive habitats sites. As such this policy will be screened into the HRA process.	Category L	Screen in
PODM36	Holiday / Tourism accommodation – New provision and retention	This policy sets requirements in relation to holiday / tourism accommodation. Tourism development has the potential to have a likely significant recreational impact upon several sensitive habitats	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		sites. As such this policy will be screened into the HRA process.		

Chapter 29: Navigation

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP13	Navigable water space	This policy will maintain and enhance navigable / recreational water spaces and provide opportunities for extension or creation of new water spaces. Given that watercourses link the Broads SAC, Broadlands SPA and Ramsar sites, this policy has the potential to have downstream LSEs on habitats sites and will be screened into the HRA process.	Category L	Screen in
PODM37	Access to the water	This policy supports development that encourages the use of waterways. Given that waterways are designated as part of the Broads SAC, Broadlands SPA and Ramsar sites, this policy has the potential to have an LSE on habitats sites and will be screened into the HRA process.	Category L	Screen in
PODM38	Bank stabilisation	This policy sets criteria for development proposals which require bank stabilisation. Given that waterways are designated as part of the Broads SAC, Broadlands SPA and Ramsar sites, this policy has the potential to have LSEs on habitats sites and will be screened into the HRA process.	Category L	Screen in
POSP14	Mooring provision	This policy sets out requirements for mooring proposals. Given that waterways are designated as part of the Broads SAC, Broadlands SPA and Ramsar sites, this policy has the potential to have an LSE on habitats sites and will be screened into the HRA process.	Category L	Screen in
PODM39	Mooring, mooring basins and marinas	This policy sets out requirements for new or replacement mooring proposals. Given that waterways are designated as part of the Broads SAC, Broadlands SPA and Ramsar sites, this policy has the potential to have an LSE on a habitats site and will be screened into the HRA process.	Category L	Screen in
PODM40	The impact of replacing quay heading on navigation	This policy allows replacement of quay headings on waterways less than 30m in width on a case-by-case basis and subject to assessment. Any in-river work has the potential to have an LSE on downstream habitats sites e.g. Broads SAC, Broadland SPA and Ramsar. As such this policy will be screened into the HRA process.	Category L	Screen in
PODM41	Materials used for quay heading, capping, and	This policy sets requirement in respect of the use of materials. It does not allocate any development or trigger any change which would impact a habitats	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
	waling, small bridges, viewing platforms, landing staging and boardwalks.	site. As such this policy is unlikely to have an LSE and would not be considered further in the HRA process.		

Chapter 30: Housing and residential moorings

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP15	Residential development	This policy sets out the housing delivery targets over the Plan period – 358 dwellings. As such it will deliver development and has the potential to have an LSE on habitats sites. It will be considered further through an Appropriate Assessment.	Category L	Screen in
PODM42	Affordable housing	This policy sets out requirements for affordable housing. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out
PODM43	Residential development within defined development boundaries	This policy supports new residential development within the development boundaries set out on the accompanying maps. These areas are located close to / upstream of several habitats sites. As such development would have the potential to have an LSE and this policy will be screened into the HRA process.	Category L	Screen in
PODM44	Gypsy, Traveller, and Travelling Show People	This policy does not allocate sites but instead sets out a set of criteria which development must meet. This policy however supports development and contains mitigation wording which relates to habitats sites. As such this policy will be screened into the HRA process for further consideration.	Category L	Screen in
PODM45	New residential moorings	This policy sets out the requirement of the Local Plan to support the need of 48 residential moorings. The policy sets out a list of criteria which such development must meet in order to be supported. This policy does not set out the locations for these moorings. Any new mooring would have the potential to have an LSE upon habitats sites and therefore this policy would be screened into the HRA process.	Category L	Screen in
PODM46	Permanent and temporary dwellings for rural enterprise workers	This is a general (non-location specific) policy which sets out a set of criteria which new development must meet. Development of temporary dwellings may result in an LSE at a habitats site (depending on location) and therefore this policy would be screened into the HRA process.	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM47	Elderly and specialist need housing	Whilst this policy does not allocate development it supports development of elderly and specialist needs housing. As such it has the potential to have an LSE at habitats sites in the study area and will be considered further in the HRA process.	Category L	Screen in
PODM48	Residential ancillary accommodation	This policy sets out a list of criteria which would apply to any residential ancillary accommodation. Development may result in an LSE at a habitats site (depending on location) and therefore this policy will be screened into the HRA process.	Category L	Screen in
PODM49	Replacing dwellings	This policy sets out a list of criteria which would apply to any replacement dwellings. It does not in itself trigger any development or change and will therefore have no LSE. As such it will be screened out of the HRA process	Category F	Screen out
PODM50	Custom / Self-build	This policy sets criteria where the Authority would support custom / self-build applications. Development may result in an LSE at a habitats site (depending on location) and therefore this policy would be screened into the HRA process.	Category L	Screen in

Chapter 31: Design

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP16	Strategic design policy	This policy safeguards the distinctive built and landscape character of the Broads. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out
PODM51	Design	This policy sets out design requirements / criteria for development. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out
PODM52	Source of heating	This policy sets requirements for the heating of new buildings. It does not allocate any development or trigger any change. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out
PODM53	Heat resilient design	This policy relates to heat resilient design of new buildings. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE on any habitats site itself and would not be considered further in the HRA process.	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM54	Non-residential development and BREEAM	This policy is a Plan wide environmental protection policy in relation to BREEAM. It does not allocate any development or trigger any change which would impact a habitat site. As such this policy is unlikely to have an LSE on any habitats site itself and would not be considered further in the HRA process.	Category F	Screen out
PODM55	Electric Vehicles (EV) Charging points – fire safety, design, location, and lighting.	This policy informs the siting of EVC points. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out
PODM56	Fibre to the premises	This policy relates to provision of fibre connections to the premises. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE on any habitats site itself and will not be considered further in the HRA process.	Category F	Screen out

Chapter 32: Visitor and community facilities and services

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSP17	Community facilities	This policy protects community facilities and supports new facilities where there is justification. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will not be considered further in the HRA process.	Category F	Screen out
PODM57	Visitor and community facilities and services	This policy sets criteria for change of use to community facilities and for new facilities. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will not be considered further in the HRA process.	Category F	Screen out

Chapter 33: Health and wellbeing

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM58	Designing places for healthy lives	This policy supports development which promotes healthy lives. It does not allocate or trigger any development or a change. As such this policy is unlikely to have an LSE on any habitats site and would not be considered further in the HRA process.	Category F	Screen out

Chapter 34: Planning obligation / developer contribution

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM59	Planning obligations and developer contribution	This policy seeks contributions from developments to serve the development and its occupants. It includes contributions to address nutrient neutrality and recreational impacts. The policy does not allocate any development and therefore does not trigger any change or development directly. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out

Chapter 35: Other development management policies

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODM60	Advertisement and signs	This policy will not trigger new development or a change with an LSE on any habitats site.	Category F	Screen out
PODM61	Re-use, conversion or change of uses of buildings	This policy sets criteria where the Authority would consider re-use, conversion or change of use of buildings. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will not be considered further in the HRA process.	Category F	Screen out
PODM62	Leisure plots, amenity plots and mooring plots	This policy sets restrictions and protection for leisure plots, amenity plots and mooring plots. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will not be considered further in the HRA process.	Category F	Screen out

Chapter 36: Site specific policies

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
n/a	n/a	Introduction text to site specific policies	Category A	Screen out

Chapter 37: Acle

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POACL1	Acle cemetery extension	This policy supports the extension of the cemetery at Acle. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out
POACL2	Acle playing fields extension	This policy supports the extension of the playing field at Acle. It does not allocate any development or trigger any change which would impact a habitats site. As such this policy is unlikely to have an LSE and will be screened out of the HRA process.	Category F	Screen out

Chapter 38: Brundall riverside

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POBRU1	Riverside chalets and mooring plots	This policy sets out criteria for development of riverside chalets and mooring plots in Brundall. Whilst it does not allocate any development or trigger any change itself it does support development (extensions and replacement buildings). Brundall is located immediately adjacent to the Broads SAC, Broadland SPA and Broadland Ramsar. As such it will be screened into the HRA process.	Category L	Screen in
POBRU2	Riverside estate boatyards, etc., including land adjacent to railway line	This policy sets out criteria for development at Riverside Estate Boatyards in Brundall. Whilst it does not allocate any development or trigger any change itself it does support development (development and retention of the boatyards and related uses). The policy also encourages greater public access to appreciate the river scenery. Brundall is located immediately adjacent to the Broads SAC, Broadland SPA and Broadland Ramsar. As such it will be screened into the HRA process and considered further in the HRA process.	Category L	Screen in
POBRU3	Brundall mooring plots	The aim of this policy is to protect this area for mooring plots. The policy will not trigger any development or change itself. It sets out criteria which development must meet if taken forward in this area. This policy protects current land uses at this site. It does not allocate any development and therefore does not trigger any change or development directly. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out
POBRU4	Brundall Marina	This policy aims to protect Brundall Marina for marina, boatyard, and related uses. The policy will not trigger any development or change itself. It sets out criteria which development must meet if taken forward in this area and supports the development of marina related development. Brundall is located immediately adjacent to the Broads SAC, Broadland SPA and Broadland Ramsar. As such it will be screened into the HRA process and considered further.	Category L	Screen in
POBRU5	Land east of the Yare public house	This policy protects current land uses at this site to provide a wildlife corridor and reflect flood risk. It does not allocate any development and therefore does not trigger any change or	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		development directly. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.		
POBRU6	Brundall Gardens	This policy supports additional residential moorings (eight in total). Given the location of this site on the banks of the River Yare and its location adjacent to the Broads SAC, Broadland SPA and Ramsar site and within the Broads nutrient neutrality and GIRAMS area – any residential moorings will need to take account of protective policy wording set out in the Local Plan. This is noted within the policy itself which sets out requirements for HRA. This policy will be screened into the HRA process as it has the potential for LSEs.	Category L	Screen in

Chapter 39: Cantley

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POCAN1	Cantley Sugar Factory	This site is defined as an employment site in the policy. This policy supports development at the factory site which secures and enhances the sugar works' contribution to the economy of the Broads and wider area. It is noted that the factory is not located within the Broads SAC nutrient neutrality catchment area and will not allocate any residential development. It is however located upstream and in close proximity to components of the Broads SAC, Broadland SPA and Ramsar and in particular those which are underpinned by the Limpenhoe Meadows SSSI. It is therefore considered that this policy will have an LSE and will be screened into the HRA process. It is noted that the policy wording requires a project level HRA to be undertaken. This will be taken into consideration in the HRA process as mitigation (protective policy wording).	Category L	Screen in

Chapter 40: Chedgrave

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POCHE1	Greenway Marina residential moorings	This policy supports five additional residential moorings. Given the location of the moorings on the banks of the River Chet and its location adjacent to the Broads SAC, Broadland SPA and Ramsar site this policy will be screened into the HRA process as it has the potential for LSEs.	Category L	Screen in

Chapter 41: Dilham

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODIL1	Dilham Marina (Tylers Cut mooring)	This policy protects Dilham Marina for the continued use for mooring of boats and uses incidental to that activity. It does not allow for residential moorings. It will not trigger any development or change itself. As such, this policy is unlikely to have an LSE on any habitats site. It will be screened out of the HRA process.	Category F	Screen out

Chapter 42: Ditchingham Dam

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PODIT1	Maltings Meadow sports ground, Ditchingham	This policy aims to protect sports facilities and sets criteria for new development or any change in this area. It does not trigger new development or change. As such, this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out
PODIT2	Ditchingham Malting Open Space, Habitats Area, and Alma Beck	This policy aims to protect open space and a habitats area and sets criteria for new development or any change. It does not trigger new development or change. As such, this policy is unlikely to have an LSE on any habitats site. It will be screened out of the HRA process.	Category F	Screen out

Chapter 43: Fleggburgh

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POFLE1	Broadlands Sports club	This policy aims to protect sports facilities and sets criteria for new development in this protected area. It does not trigger new development or any change. As such, this policy is unlikely to have an LSE on any habitats site. It will be screened out of the HRA process.	Category F	Screen out

Chapter 44: Gillingham

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POGIL1	Gillingham residential Mooring (H.E. Hippersons boatyard)	This policy supports up to five additional residential moorings. The site is located upstream of several components of the Broads SAC, Broadlands SPA and Ramsar sites on the River Waveney. As such it has the potential to have an LSE and will be screened into the HRA process.	Category L	Screen in

Chapter 45: Great Yarmouth

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POGTY1	Marina Quays (port of Yarmouth Marina)	This policy does not trigger development in itself. It provides a series of requirements that any new development should meet and supports	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		river and other leisure uses. This policy has the potential to increase recreational pressure on habitats sites and would therefore be screened into the HRA process.		

Chapter 46: Horning

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POHOR1	Horning Car Parking	This policy protects this area of land for continued car park use. It does not trigger any new development or change which is likely to have a significant effect on any habitats site.	Category F	Screen out
POHOR2	Horning Open Space (public and private)	This policy aims to protect Horning Open Space from development. It does not trigger any new development or change which is likely to have a significant effect on any habitats site.	Category F	Screen out
POHOR3	Waterside plots	This policy does not allocate development in itself but provides a series of requirements that any new development should meet to protect the area from over development. Its support of development in this area have triggered an LSE and it will therefore be screened into the HRA process.	Category L	Screen in
POHOR4	Horning Sailing Club	This policy does not allocate development in itself but provides a series of requirements that any new development should meet to protect the area for sailing use. Its support of development in this area have triggered an LSE and it will therefore be screened into the HRA process.	Category L	Screen in
POHOR5	Crabbetts Marsh	This policy protects this area as an open and natural space. As such, it does not trigger any development or change and would therefore not have an LSE and would be screened out of the HRA process.	Category F	Screen out
POHOR6	Horning – Boatyard, etc. At Ferry Road and Ferry View Road	This policy does not allocate development in itself but provides a series of requirements that any new development should meet to protect the area from impacts. Its support of development in this area have triggered an LSE and it will therefore be screened into the HRA process.	Category L	Screen in
POHOR7	Woodbastwick Fen Mooring	This policy aims to protect the riverside area. The policy will not trigger any development or change itself. As such, this policy is unlikely to have an LSE on any habitats site and would be screened out of the HRA process.	Category F	Screen out
POHOR8	Land on the corner of Ferry Road, Horning	This policy protects existing use at these units. It does not propose a change in use and therefore will not trigger any development or change itself. As such, this policy is unlikely to	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		have an LSE on any habitats site and would be screened out of the HRA process.		

Chapter 47: Hoveton and Wroxham

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA Screening
POHOV1	Green Infrastructure	This policy protects GI in the Plan area and will have a positive impact on habitats sites. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out
POHOV2	Station Road Car Park	This policy protects Station Road car park for continued car park use. It does not trigger any new development or change which is likely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out
POHOV3	Brownfields land off station Road, Hoveton	This site is allocated for mixed uses and as such will trigger development. The site is located upstream of the Broads SAC, Broadlands SPA and Ramsar sites, within the nutrient neutrality area and also has the potential to result in increased residential development with recreational impacts. This policy will be screened out of the HRA process.	Category L	Screen in
POHOV4	BeWilDerwood Adventure Park	This policy supports ancillary development to meet the operational needs at the park. It is noted that the park is located within the Broads SAC and Broadland Ramsar nutrient neutrality catchment area. As such, this policy has the potential to have an LSE and will be screened into the HRA process.	Category L	Screen in
POHOV5	Hoveton Town Centre and areas adjacent to the Town Centre	This policy sets out development which may be supported in these areas and criteria which will apply. It does not allocate any development or trigger any change specifically. As this policy supports development it will be screened into the HRA process.	Category L	Screen in

Chapter 48: Loddon

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA Screening
POLOD1	Loddon Marina Residential Moorings	This policy supports the conversion of up to 10 moorings to residential. The site is located upstream of several components of the Broads SAC, Broadlands SPA and Ramsar sites on the River Chet. As such it has the potential to have an LSE and will be screened into the HRA process.	Category L	Screen in

Chapter 49: Norwich

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA Screening
PONOR1	Utilities site	This policy will trigger development for 271 dwellings at the utilities site. As such it has the potential to have an LSE at habitats sites in the study area and will be considered further in the HRA.	Category L	Screen in
PONOR2	Riverside walk and cycle path	This policy seeks to safeguard land for a riverside walk and cycle path along the Wensum/Yare at Whitlingham Country Park to the southeast of Norwich. This footpath runs along the northern bank of the River Yare only in a short section to the north of the Whitlingham Great Broad. It is not located within or adjacent to any habitats site and therefore it is unlikely to have an LSE and would be screened out of the HRA process.	Category F	Screen out

Chapter 50: Ormesby St. Micheal

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
PORM1	Ormesby waterworks	This policy seeks to protect Ormesby treatment works from development to allow its continued functioning. It does not trigger any new development or change which is likely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out

Chapter 51: Oulton Broad

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POOUL1	Boathouse Lane leisure plots	This policy aims to protect the rural and semi-natural character of the area, its contribution to the views from the Broad, and floodwater capacity. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site.	Category F	Screen out
POOUL2	Oulton Board – Former Pegasus / Hampton sites	This policy allocates land for a boatyard and optional other uses (housing, recreation, entertainment, or employment use (or uses) where compatible with the boatyard use, road access, neighbouring uses, and flood risk). It will therefore trigger development and as such this policy will have an LSE on a habitats site. This will be screened into the HRA process.	Category L	Screen in
POOUL3	Oulton Broad District Shopping Centre	This policy sets out development which may be supported in the shopping centre and criteria which will apply. It does not allocate any development or trigger any change specifically which would impact a habitats site would not be considered further in the HRA process.	Category F	Screen out

Chapter 52: Potter Heigham / Repps with Bastwick

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POPHRB1	Bridge area	The area will be further developed and enhanced as a location for river related leisure and tourism. Potter-Heigham is located adjacent to the Broads SAC, Broadland SPA and Broadland Ramsar. As such this policy will be screened into the HRA process as LSEs are possible.	Category L	Screen in
POPHRB2	Waterside plot	This policy aims to conserve the area, and protect the area from over development and suburbanisation, while considering the maintenance and replacement of existing buildings. It does not trigger development or change which could cause an LSE and will be screened out of the HRA process.	Category F	Screen out
POPHRB3	Green bank zones	This policy seeks to protect the green bank zones. It does not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out

Chapter 53: St. Olaves

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSOL1	Riverside area moorings	This policy aims to protect this riverside area for moorings. The policy will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out

Chapter 54: Somerleyton

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSOM1	Somerleyton Marina residential moorings	This policy supports the provision of up to 15 residential moorings. The site is located in close proximity to several components of the Broads SAC, Broadlands SPA and Ramsar site. As such it has the potential to have an LSE and will be screened into the HRA process.	Category L	Screen in

Chapter 55: Stalham

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSTA1	Land at Stalham Staithe (Richardson's boatyard)	This policy allocates up to 10 residential moorings and is located adjacent to the Broadland SPA, The Broads SAC and Broadland Ramsar site. As such it has the potential to have an LSE and will be screened into the HRA process.	Category L	Screen in

Chapter 56: Stokesby

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSTO1	Land adjacent to Tiedam, Stokesby	This policy allocates four residential dwellings and is located adjacent to the Broadland SPA, The Broads SAC and Broadland Ramsar site. As such it has	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		the potential to have an LSE and will be screened into the HRA process.		

Chapter 57: Thrope St. Andrew

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POTSA1	Cary's Meadow	This policy aims to protect the Norfolk County Wildlife Site at Cary's Meadow from development. It does not trigger new development or any change and is therefore unlikely to have an LSE on any habitats site.	Category L	Screen in
POTSA2	Thorpe Island	This policy supports development of up to 25 private moorings and sets out criteria with which new development must comply. It is located close to several habitats sites including the Broadland SPA, The Broads SAC and Broadland Ramsar site. As such it has the potential to have an LSE and will be screened into the HRA process.	Category L	Screen in
POTSA3	Griffin Lane – boatyards and industrial area	This policy supports environmental and landscape improvements in this area. It will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out
POTSA4	Bungalow Lane – mooring plots and boatyards	This policy only supports the extension or replacement of existing buildings. It will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out
POTSA5	River Green Open Space	This policy protects this area of open space. It will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out

Chapter 58: Thurne

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POTHU1	Tourism development at Hedera House, Thurne	This policy allocates Hedera House for tourism development. It has the potential for recreational and other LSEs upon habitats sites and will therefore be screened into the HRA process.	Category L	Screen in

Chapter 59: Trowse and Whitlingham

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POWHI1	Whitlingham Country Park plus adjacent land	This policy provides protection for the continued use of the County Park as recreation land. Given the location of the park on the banks of the River Yare and its upstream location in relation to the Broads SAC, Broadland SPA and Ramsar site and within the Broads nutrient neutrality area – any development of buildings and facilities	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		and sustainable recreation, leisure and appropriate visitor uses will have the potential for LSEs. This policy will therefore be screened into the HRA process.		
POWHI2	Land at Whitlingham Lane	This policy supports the appropriate reuse and enhancement of existing facilities at the former rowing club and boatyard at Whitlingham Lane. The site is located within a nutrient neutrality area on the banks of the Whitlingham Broad. Downstream LSEs are therefore possible at the Broads SAC, Broadlands SPA and Ramsar. Given the land use class requirements (Class E) recreational impacts are unlikely. This policy will be screened into the HRA process.	Category L	Screen in

Chapter 60: Non – Settlement based policies

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
POSSTRI	Trinity Broads	This policy aims to protect the special nature, character, and tranquillity Trinity Broads. It will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out
POSSUT	Upper Thurne	This policy aims to protect the special nature, character, and tranquillity of Upper Thurne. It will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out
POSSPUBS	Pub network	This policy aims to protect several public houses. It will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out
POSSROADS	Main road network	This policy sets out requirements to protect the main road network. It will not trigger any development or change and will therefore not have an LSE and will be screened out of the HRA process.	Category F	Screen out
POSSTRACKS	Former rail trackways	This policy protects former railway track beds for their potential for walking, cycling, and/or horse-riding routes. Parts of these railway tracks are located within Beccles Marshes Suffolk County Wildlife Site and adjacent to SPA, SAC and Ramsar site. As such this policy has the potential to have an LSE on a habitats site in terms of increased accessibility and recreational impacts.	Category L	Screen in
POSSSTRATIONS	Railway stations / halts	This policy aims to protect use at several railway stations / halts. It will not trigger any development or change and will therefore not have an LSE and	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
		will be screened out of the HRA process.		
POSSSTAITHES	Staithes	This policy protects staithes from development / obstructions etc. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out
POSSCOAST	The Coast	This policy aims to safeguard the coastal area from inappropriate development to allow it to act as a wild bird and seal refuge and ensure the protection of SPAs and SACs. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out
POSSMILLS	Drainage mills	Alongside conservation of the drainage mills, this policy sets out criteria which must be met if alternative uses for the mills are sought. Should alternative uses relate to change of use related to new housing it is likely that there may be an LSE on habitats sites and this policy will therefore be screened into the HRA process.	Category L	Screen in
POSSLGS	Local green space	This policy sets out protections for local green space. The policy will not trigger any development or change itself. As such this policy is unlikely to have an LSE on any habitats site and will be screened out of the HRA process.	Category F	Screen out
POSSA47	Road schemes on the Acle Straight (A47T)	The policy commits the Authority to work proactively with promoters and designers of any schemes /proposals for changes to the Acle Straight at an early stage and throughout the process, especially at the feasibility and design stages. Road development has the potential to have an LSEs at habitats sites. As such this policy will be screened into the HRA process for further consideration.	Category L	Screen in

Chapter 61: Implementation, monitoring, and review

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
n/a	n/a	Administrative text	Category A	Screen out

Chapter 62: Next steps

Policy number	Policy name	Justification: Activities that may result in an LSE on a habitats site	Screening category	HRA screening
n/a	n/a	Administrative text	Category A	Screen out

Appendix C: Baseline air quality information (Source: APIS)

APIS¹ provides current levels of nitrogen deposition and acidification at the Broads SAC and Broadland SPA alongside critical loads for each qualifying feature, these are summarised below.

Table C.1: Nitrogen critical load information for The Broads SAC

Qualifying feature	Critical load class	Critical load (N) kg/ha/yr	Current levels of deposition Kg/ha/yr	Source attribution data (local contributions)
Transition mires and quaking bogs	Valley mires, poor fens and transition mires	5-15	Maximum: 17.0 Minimum: 13.6 Average: 15.5	Livestock: 37.5% Fertiliser Application: 15% Others: 9.19% Other Transport: 9.29% Europe Import : 8.19% Road Transport : 5.79% Non-agricultural non abatable: 6.9% Non-agricultural abatable: 3.1% Non-agricultural waste: 5%
Fen orchid (<i>Liparis loeselii</i>)	Moist to wet dune slacks	5-15	Maximum: 17.0 Minimum: 13.6 Average: 15.5	
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>)	Moist and wet oligotrophic grasslands: <i>Molinia caerulea</i> meadows	15-25	Maximum: 17.0 Minimum: 13.6 Average: 15.5	
Calcareous fens with <i>Cladium mariscus</i> and species of the (<i>Caricion davallianae</i>)	Rich fens	15-25	Maximum: 17.0 Minimum: 13.6 Average: 15.5	
Alkaline fens	Rich fens	15-25	Maximum: 17.0 Minimum: 13.6 Average: 15.5	
Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.7 Average: 9.2	
Otter (<i>Lutra lutra</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.7 Average: 9.2	
Ramshorn snail (<i>Anisus vorticulus</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.7 Average: 9.2	

¹ Air Pollution Information System (APIS). Available at: <http://www.apis.ac.uk/src/> [Date Accessed: 24/01/24].

Qualifying feature	Critical load class	Critical load (N) kg/ha/yr	Current levels of deposition Kg/ha/yr	Source attribution data (local contributions)
Hard oligo- mesotrophic waters with benthic vegetation of <i>Chara spp</i>	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.7 Average: 9.2	
Northern crested newt (<i>Triturus Cristatus</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.7 Average: 9.2	
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	Designated feature / feature habitat not sensitive to eutrophication	No critical loads available for this feature	Maximum: 30.2 Minimum: 23.4 Average: 27.2	
Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.7 Average: 9.2	

Table C.2: Acidity critical load information for the Broads SAC (only qualifying features sensitive to acidity are included)

Qualifying feature	Critical load class	Critical load keq/ha/yr	Current levels of deposition Nitrogen / Sulphur (keq/ha/yr):
Transition mires and quaking bogs	Bogs	MaxCLminN:0.32 MaxCLmaxN:0.52 MaxCLmaxS:0.20 MinCLmaxN:0.32 MinCLmaxN:0.49 MinCLmaxS:0.17	Maximum: 1.32 Minimum: 1.01 Average: 1.17
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>)	Acid grassland	No critical loads available for this feature	Maximum: 1.32 Minimum: 1.01 Average: 1.17
Fen orchid (<i>Liparis loeselii</i>)	Calcareous grassland (using base cation)	MaxCLminN:1.07 MaxCLmaxN:5.07 MaxCLmaxS:4.00 MinCLmaxN:0.85 MinCLmaxN:4.85 MinCLmaxS:4.00	Maximum: 1.32 Minimum: 1.01 Average: 1.17
Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>)	Freshwater	No critical loads available for this feature	Maximum: 0.93 Minimum: 0.61 Average: 0.72
Otter (<i>Lutra lutra</i>)	Freshwater	No critical loads available for this feature	Maximum: 0.93 Minimum: 0.61 Average: 0.72
Ramshorn snail (<i>Anisus vorticulus</i>)	Freshwater	No critical loads available for this feature	Maximum: 0.93 Minimum: 0.61 Average: 0.72

Table C.3: Nitrogen critical load information for Broadlands SPA qualifying features broad habitat types²

Broad habitat types for SPA qualifying features	Qualifying features	Critical load (N) kg/ha/yr	Current levels of deposition Kg/ha/yr	Source attribution Data (local contributions)
Northern Shoveler (<i>Anas clypeata</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.9 Average: 9.2	Livestock: 37.5% Fertiliser Application: 15% Others: 9.19% Other Transport: 9.29% Europe Import : 8.19% Road Transport : 5.79% Non-agricultural non abatable: 6.9% Non-agricultural abatable: 3.1% Non-agricultural waste: 5%
Eurasian wigeon (<i>Anas Penelope</i>)	No comparable habitat with established critical load estimate available	10-20	Maximum: 12.3 Minimum: 7.9 Average: 9.2	
Gadwell (<i>Anas strepera</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.9 Average: 9.2	
Eurasian bittern (<i>Botaurus stellaris</i>)	Rich Fens	15-25	Maximum: 12.3 Minimum: 7.9 Average: 9.2	
Western marsh harrier (<i>Circus aeruginosus</i>)	Rich Fens	15-25	Maximum: 12.3 Minimum: 7.9 Average: 9.2	
Hen harrier (<i>Circus cyaneus</i>)	Rich Fens Atlantic upper – mid & mid – low salt marshes	15-25	Maximum: 12.3 Minimum: 7.9 Average: 9.2	
Tundra swan (<i>Cygnus columbianus</i>)	Species Broad habitat not sensitive to eutrophication	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.9 Average: 9.2	
Whooper swan (<i>Cygnus cygnus</i>)	Species Broad habitat not sensitive to eutrophication	No critical loads available for this feature	Maximum: 12.3 Minimum: 7.9 Average: 9.2	

² Table only includes broad habitats which are sensitive to nitrogen.

Broad habitat types for SPA qualifying features	Qualifying features	Critical load (N) kg/ha/yr	Current levels of deposition Kg/ha/yr	Source attribution Data (local contributions)
Ruff (<i>Philomachus pugnax</i>)	Atlantic upper – mid & mid – low salt marshes, Low and medium altitude hay meadows	10-20	Maximum: 12.3 Minimum: 7.9 Average: 9.2	

Table C.4: Acid deposition information for Broadlands SPA qualifying features broad habitat types³

Broad habitat types for SPA qualifying features	Qualifying features	Acidity critical load keq/ha/yr	Current levels of deposition Nitrogen / Sulphur (keq/ha/yr):
Northern Shoveler (<i>Anas clypeata</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 0.93 Minimum: 0.61 Average: 0.72
Eurasian wigeon (<i>Anas Penelope</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 0.93 Minimum: 0.61 Average: 0.72
Gadwell (<i>Anas strepera</i>)	No comparable habitat with established critical load estimate available	No critical loads available for this feature	Maximum: 0.93 Minimum: 0.61 Average: 0.72
Whooper swan (<i>Cygnus cygnus</i>)	Species Broad habitat not sensitive to eutrophication	MaxCLminN:1.03 MaxCLmaxN:5.16 MaxCLmaxS:4.13	Maximum: 0.93 Minimum: 0.61 Average: 0.72

³ Table only includes broad habitats which are sensitive to acidity.

Broad habitat types for SPA qualifying features	Qualifying features	Acidity critical load keq/ha/yr	Current levels of deposition Nitrogen / Sulphur (keq/ha/yr):
Tundra swan (<i>Cygnus columbianus</i>)	Species Broad habitat not sensitive to eutrophication	No critical loads available for this feature	Maximum: 0.93 Minimum: 0.61 Average: 0.72
Ruff (<i>Philomachus pugnax</i>)	Atlantic upper – mid & mid – low salt marshes. Low and medium altitude hay meadows	MaxCLminN:1.07 MaxCLmaxN:5.07 MaxCLmaxS:4.00 MinCLmaxN:0.85 MinCLmaxN:4.85 MinCLmaxS:4.00	Maximum: 0.93 Minimum: 0.61 Average: 0.72

Habitats Regulations Assessments

Sustainability Appraisals

Strategic Environmental Assessments

Landscape Character Assessments

Landscape and Visual Impact Assessments

Green Belt Reviews

Expert Witness

Habitat and Ecology Surveys

Biodiversity Net Gain



© Lepus Consulting Ltd

Eagle Tower

Montpellier Drive

Cheltenham

GL50 1TA

T: 01242 525222

E: enquiries@lepusconsulting.com

www.lepusconsulting.com

CHELTENHAM



Lepus Consulting
Eagle Tower
Montpellier Drive
Cheltenham
Gloucestershire GL50 1TA

t: 01242 525222
w: www.lepusconsulting.com
e: enquiries@lepusconsulting.com