Habitats Regulations Assessment of the Local Plan for the Broads

Issues and Options

Preliminary HRA Scoping Report

July 2022

LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

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Abbreviations

AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
APIS	Air Pollution Information System
AWS	Anglian Water Services
CJEU	Court of Justice of the European Union
CIEEM	Chartered Institute of Ecology and Environmental Management
CSMG	UK Common Standards for Monitoring Guidance
DLUHC	Department for Levelling Up, Housing and Communities
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley and Associates
GI	Green Infrastructure
HDV	Heavy Duty Vehicles
HRA	Habitats Regulations Assessment
IAQM	Institute of Air Quality Management
IRZ	Impact Risk Zone
JNCC	Joint Nature Conservation Committee
LPA	Local Planning Authority
LSE	Likely Significant Effect
NBP	Norfolk Biodiversity Partnership
NE	Natural England
NSPF	Norfolk Strategic Planning Framework
NPPF	National Planning Policy Framework
pSAC	Possible / proposed Special Area of Conservation
pSPA	Potential Special Protection Area
RAMS	Recreational Impact Avoidance 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
SuDS	Sustainable Urban Drainage
WFD	Water Framework Directive
WRMP	Water Resources Management Plan

WRZ	Water Resource Zone
WwTW	Wastewater Treatment Works
ZoI	Zone of Influence

1 Introduction

1.1 The Broads Authority

1.1.1 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.

1.1.2 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**.

1.1.3 The Executive Area includes areas of Broadland District, South Norfolk District, North Norfolk District, Great Yarmouth Borough, Norwich City, and East Suffolk Council area. 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 and are also the Lead Local Flood Authority.

1.2 Local Plan for the Broads review

1.2.1 The Broads Authority is the Local Planning Authority for the Broads and is responsible for producing the Local Plan for the Broads (referred to hereafter as the Local Plan). The existing Local Plan[1] was adopted in 2019 and covers the period up to 2036[2]. This plan guides development in the area and is used in determining planning applications.

[1] The Broads Authority (2019) Local Plan for the Broads. Available at: https://www.broads-authority.gov.uk/planning/planning-policies/development [Date Accessed: 27/06/22]

[2] The Broads Authority. March 2017. Broads Plan 2017. Partnership strategy for the Norfolk & Suffolk Broads. Available at: https://www.broads-authority.gov.uk/__data/assets/pdf_file/0023/240665/Broads-Plan-2017.pdf [Date Accessed: 08/06/22]

1.2.2 The adopted Local Plan commits to a review around 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)[3] and address issues such as climate change. The first stage of this review is the Issues and Options consultation[4] which aims to obtain views on key issues and current policies. The Issues and Options consultation does not contain any policies at this stage. The output of the Issues and Options consultation will shape the next stage of the Local Plan's development, the Preferred Options (Regulation 18).

1.3 Purpose of this report

1.3.1 Lepus Consulting has prepared this Preliminary Habitats Regulations Assessment (HRA) Scoping Report on behalf of the Broads Authority.

1.3.2 An HRA will be undertaken of the Local Plan review in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended)[5], known as the Habitats Regulations. When a plan is not directly connected with, or necessary for, the conservation management of a Habitats site, a competent authority is required to carry out an assessment under the Habitats Regulations, known as an HRA, to test if that plan could significantly harm the designated features of a Habitats site[6].

1.3.3 The most effective way to deliver the outputs of HRA is to ensure that it is incorporated into the plan-making process as early as possible. This allows adverse impacts to be avoided in the first instance through strategic planning of options or, where this is not possible, effective mitigation. Mitigation measures can then be designed to avoid, cancel or reduce significant effects following the mitigation hierarchy. Such measures may take the form of guiding principles and policy requirements, drawing on existing best practice. Should mitigation not be possible there may be a need to consider alternatives which may require some more complex changes to a plan.

1.3.4 The purpose of this report is therefore to provide HRA guidance and advice to the Authority at the early stages of the Local Plan review. This preliminary HRA scoping exercise aims to identify those Habitats sites that will be considered in the HRA process through application of a 'source-pathway-receptor' model. In addition, key constraints and opportunities at Habitats sites and likely pathways of impact from the Local Plan are set out. This report also outlines HRA methodologies that will be taken forward alongside the Local Plan and the key issues for consideration.

[3] MHCLG (2021) National Planning Policy Framework. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2. [Date Accessed: 14/06/22]

[4] The Broads Authority. The Local Plan for the Broads Review. Issues and Options Consultation. July 2022

[5] 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: 29/01/21] 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: 08/06/22]

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

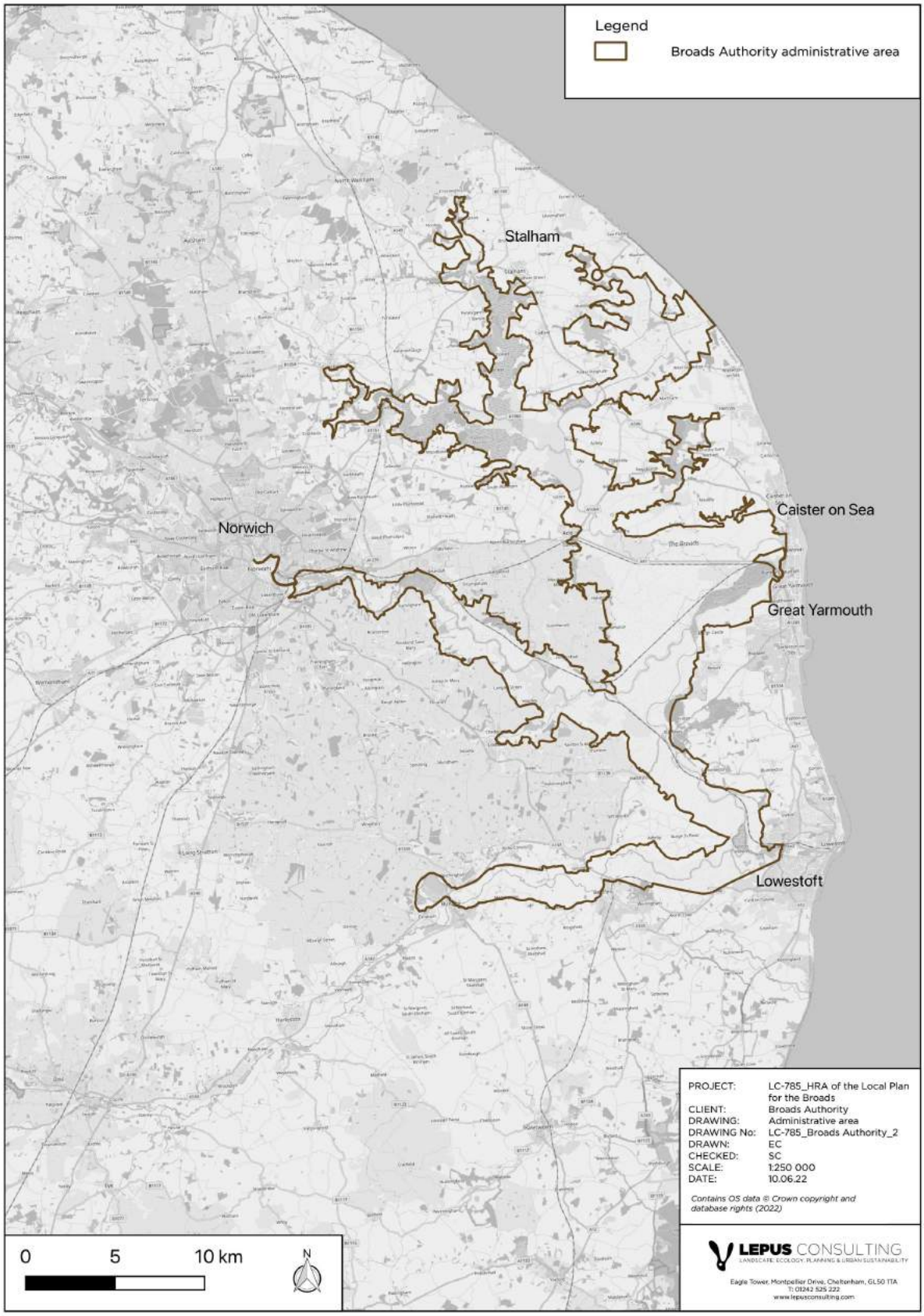

Figure 1.1: *The Broads Authority administrative area*

2 The HRA process

2.1 Overview

2.1.1 The HRA process assesses the potential effects of a plan or project on the conservation objectives of sites designated under the Habitats[7] and Birds[8] Directives. These sites form a system of internationally important sites throughout Europe known collectively as the 'Natura 2000 Network'. In line with the Habitats Regulations, UK sites which were part of the Natura 2000 Network before leaving the EU, have become part of the National Site Network.

2.1.2 The Habitats Regulations[9] provide a definition of a 'European site' at Regulation 8. These 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.

2.1.3 In addition, policy in England and Wales notes that the following sites should also be given the same level of protection as a European site[10]. European sites together with sites set out in national policy (listed below) are referred to in England and Wales as a Habitats site[11].

- A potential SPA (pSPA);
- A possible / proposed SAC (pSAC);
- Listed and proposed Ramsar Sites (Wetland of International Importance under the Ramsar Convention); and
- In England, sites identified or required as compensation measures for adverse effects on statutory European sites, pSPA, pSAC and listed or proposed Ramsar sites.

[7] Official Journal of the European Communities (1992). Council Directive 92 /43 /EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

[8] Official Journal of the European Communities (2009). Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

[9] 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: 24/02/22] 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: 27/06/22]

[10] Ministry of Housing, Communities & Local Government (2021). National Planning Policy Framework. Para 181. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf [Date Accessed: 27/06/22]

[11] 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/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf[Date Accessed: 27/06/22]

2.1.4 This report refers to both statutory sites and sites protected through national planning policy as a 'Habitats site' for ease of reference. Regulation 63 of the Habitats Regulations notes a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project, must make an appropriate assessment of the implications of the plan or project for that site in view of its site conservation objectives. These tests are referred to collectively as a Habitats Regulations Assessment (HRA).

2.1.5 HRA applies to plans or projects which are likely to have a significant effect on a Habitats site (either alone or in combination with other plans or projects), and / or are not directly connected with or necessary to the management of that site.

2.1.6 There is no set methodology or specification for carrying out and recording the outcomes of the assessment process. The Habitats Regulations Assessment Handbook, produced by David Tyldesley Associates (referred to hereafter as the 'DTA Handbook'), provides an industry recognised good practice approach to HRA. The DTA Handbook, and in particular 'Practical Guidance for the Assessment of Plans under the Regulations'[12], which forms part F, has therefore been used to prepare this report, alongside reference to Government Guidance on Appropriate Assessment[13]. The DTA Handbook is widely considered to be an appropriate basis for the HRA of plans.

2.1.7 A step-by-step guide to the methodology adopted in this assessment, as outlined in the DTA Handbook, is illustrated in **Figure 2.1.** In summary, the four key stages of the HRA process are as follows:

- **Stage 1. Screening:** Screening to determine if the Local Plan would be likely to have a significant effect on a Habitats site. This stage comprises the identification of potential effects associated with the Local Plan on Habitats sites and an assessment of the likely significance of these effects.
- **Stage 2. Appropriate Assessment and the 'Integrity Test':** Assessment to ascertain whether or not the Local Plan would have a significant adverse effect on the integrity of any Habitats site to be made by the Competent Authority (in this instance The Broads Authority). This stage comprises an impact assessment and evaluation in view of a Habitats site's conservation objectives. Where adverse impacts on site integrity are identified, consideration is given to alternative options and mitigation measures which are tested.
- **Stage 3. Alternative solutions:** Deciding whether there are alternative solutions which would avoid or have a lesser effect on a Habitats site.
- **Stage 4. Imperative reasons of overriding public interest and compensatory measures:** Considering imperative reasons of overriding public interest and securing compensatory measures.

[12] Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (September) (2013) edition UK: DTA Publications Limited. Available at: www.dtapublications.co.uk [Date Accessed: 09/06/22]

[13] Government Guidance on Appropriate Assessment. July 2019. Guidance on the use of Habitats Regulations Assessment. Available at: https://www.gov.uk/guidance/appropriate-assessment [Date Accessed: 09/06/22]

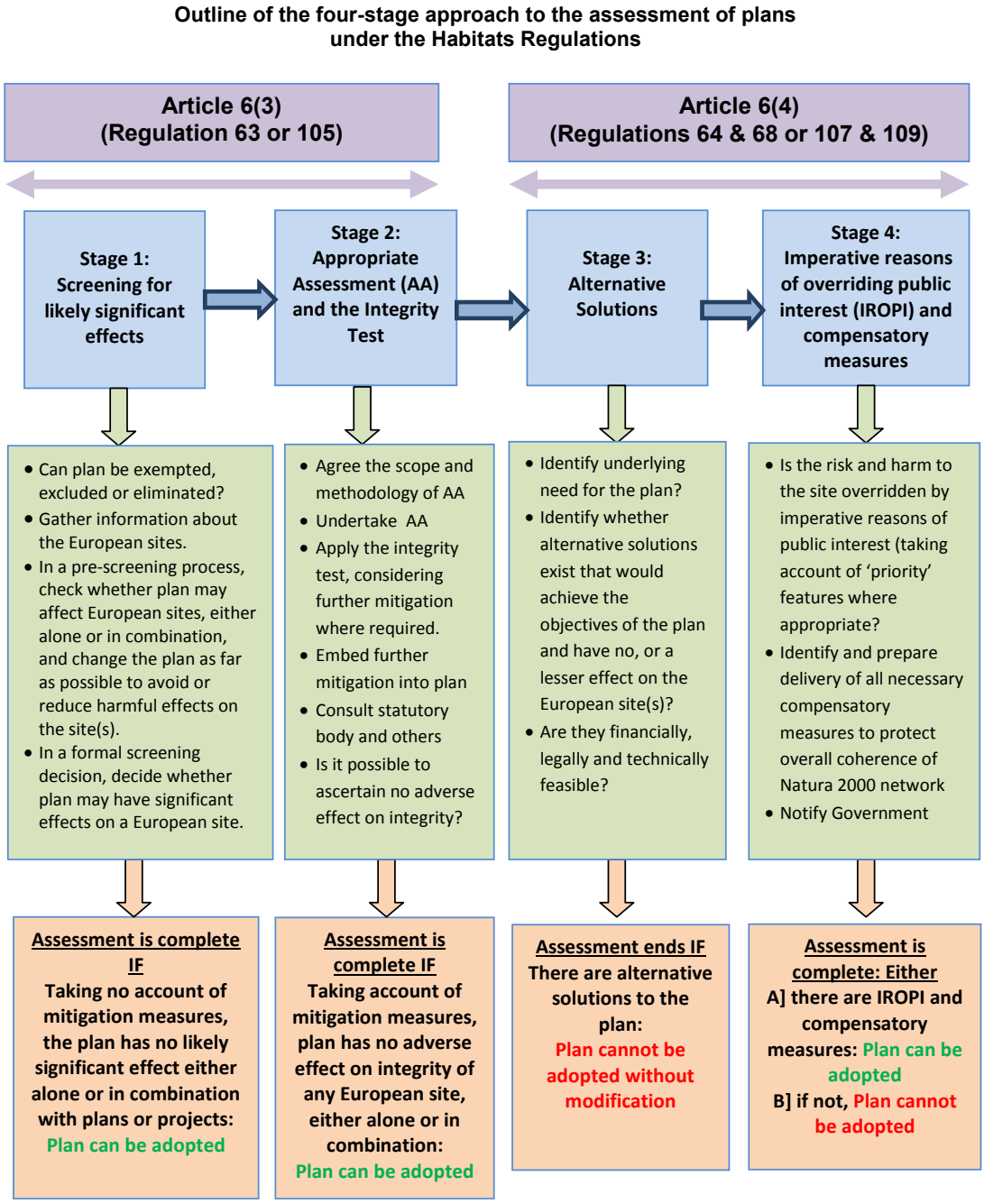

Figure 2.1: *Stages in the Habitats Regulations Assessment process*[14]

[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: 09/06/22]

2.2 Adopted Local Plan for the Broads HRA

2.2.1 The Adopted Local Plan for the Broads[15] was supported by an HRA process which was undertaken iteratively throughout plan preparation (at preferred options, publication, to reflect changes in HRA case law and at the modification stage)[16,17]. The HRA screened likely significant effects and provided wording and recommendations at various plan making stages to modify and inform policy and supporting text wording. It focused on the following Habitats sites:

- The Broads SAC;
- Broadland SPA;
- Broadland Ramsar;
- Breydon Water SPA;
- Breydon Water Ramsar;
- Great Yarmouth North Denes SPA;
- Winterton-Horsey Dunes SAC;
- Outer Thames Estuary SPA; and
- Haisborough, Hammond and Winterton marine SAC.

2.2.2 The Appropriate Assessment focused on impacts associated with new housing, increased tourism, boating and water's edge development and navigation. It recognised the requirement for HRA of lower tier project level HRA and set out recommendation in relation to nutrient enrichment, damage of habitat and recreation mitigation. Subject to the incorporation of recommended plan modifications, the HRA concluded that the final plan should be considered fully compliant with the requirements of the Habitats Regulations.

15 The Broads Authority (2019) Local Plan for the Broads. Available at: https://www.broads-authority.gov.uk/__data/assets/pdf_file/0036/259596/Local-Plan-for-the-Broads.pdf [Date Accessed: 14/06/22]

16 Liley, D., Hoskin, R., Panter, C. and Lake, S. 2016 Habitats Regulations Assessment (HRA) of the Broads Plan 2017 at Consultation of the 'Revised Draft'. Unpublished report by Footprint Ecology.

17 Liley, D., Hoskin, R., Lake, S. and Panter, C. 2019. Habitats Regulations Assessment of the Local Plan for the Broads at Modifications stage. Unpublished report by Footprint Ecology.

3 Methodology

3.1 HRA methodology

3.1.1 HRA is a rigorous precautionary process centred around the conservation objectives of a Habitats site's qualifying interests. It is intended to ensure that designated Habitats sites are protected from impacts that could adversely affect their integrity, as required by the Birds and Habitats Directives. A step-by-step guide to this methodology is outlined in the DTA Handbook and has been reproduced in **Figure 3.1**. This chapter outlines the methodology that will be followed in the HRA of the Local Plan for the Broads as the plan develops.

3.2 Stage 1: Screening for likely significant effects

3.2.1 The first stage in the HRA process comprises the screening stage. 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 likely significant effects at a Habitats site, either alone or in combination with other plans or projects.

3.2.2 Screening considers the potential 'significance' of adverse effects. Where elements of the Local Plan will not result in a likely significant effect (LSE) on a Habitats site (alone or in-combination) these are screened out and not considered in further detail in the process. The screening stage follows a number of steps which are outlined in **Figure 3.1.**

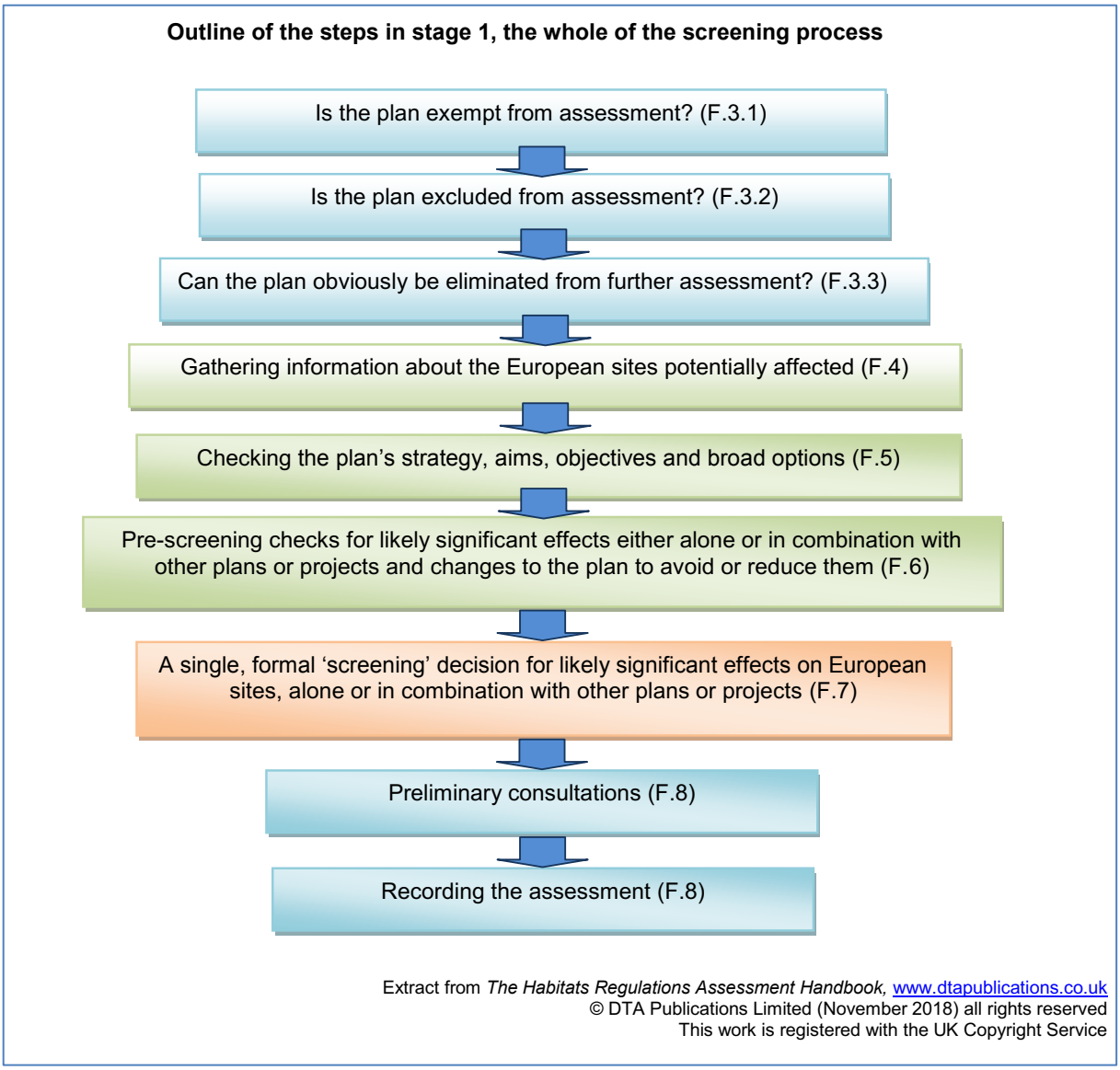

Figure 3.1: *Outline of steps in stage 1; the whole screening process*

3.2.3 Pre-screening the components of a plan at the early stage of the plan-making process helps to minimise or avoid LSEs upon any Habitats site and as such improve the plan. The pre-screening process uses a number of evaluation codes to summarise whether or not a component of the Local Plan is likely to have LSEs alone or in-combination, see **Table 3.1,** and inform the formal screening decision.

Table 3.1: *Assessment and reasoning categories from Part F of the DTA Handbook*

Assessment and reasoning categories from Chapter F of The Habitats Regulations Assessment Handbook (DTA Publications, 2013) [18]:
A. General statements of policy / general aspirations.
B. Policies listing general criteria for testing the acceptability / sustainability of proposals.
C. Proposal referred to but not proposed by the plan.
D. General plan-wide environmental protection / site safeguarding / threshold policies
E. Policies or proposals that steer change in such a way as to protect European sites from adverse effects.
F. Policies or proposals that cannot lead to development or other change.
G. Policies or proposals that could not have any conceivable or adverse effect on a site.
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).
I. Policies or proposals with a likely significant effect on a site alone.
J. Policies or proposals unlikely to have a significant effect alone.
K. Policies or proposals unlikely to have a significant effect either alone or in combination.
L. Policies or proposals which might be likely to have a significant effect in combination.
M. Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a Habitats site.

3.3 What is a Likely Significant Effect?

3.3.1 HRA screening provides an analysis of LSEs identified during the HRA screening process. It considers the nature, magnitude and permanence of potential effects in order to inform the plan making process.

3.3.2 The DTA Handbook guidance provides the following interpretation of LSEs:

3.3.3 *"In this context, 'likely' means risk or possibility of effects occurring that cannot be ruled out on the basis of objective information. 'Significant' effects are those that would undermine the conservation objectives for the qualifying features potentially affected, either alone or in combination with other plans or projects … even a possibility of a significant effect occurring is sufficient to trigger an 'appropriate assessment'"* [19].

3.3.4 With reference to the conservation status of a given species in the Habitats or Birds Directives, the following examples would be considered to constitute a significant effect:

- Any event which contributes to the long-term decline of the population of the species on the site;
- Any event contributing to the reduction, or to the risk of reduction, of the range of the species within the site; and

[18] Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. December 2019 edition UK: DTA Publications Ltd, www.dtapublications.co.uk

[19] Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. December 2019 edition UK: DTA Publications Ltd, www.dtapublications.co.uk

- Any event which contributes to the reduction of the size of the habitat of the species within the site.

3.3.5 Rulings from the 2012 'Sweetman'[20] case provide further clarification:

3.3.6 *"The requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill".*

3.3.7 Therefore, it is not necessary for the Broads Authority to show that the Local Plan will result in no effects whatsoever on any Habitats site. Instead, the Broads Authority is required to show that the Local Plan, either alone or in-combination with other plans and projects, will not result in an effect which undermines the conservation objectives of one or more qualifying features.

3.3.8 Determining whether an effect is significant requires careful consideration of the environmental conditions and characteristics of the Habitats site in question, as per the 2004 'Waddenzee'[21] case:

3.3.9 *"In assessing the potential effects of a plan or project, their significance must be established in the light, inter alia, of the characteristics and specific environmental conditions of the site concerned by that plan or project".*

3.4 In-combination effects

3.4.1 Where screening concludes there are no LSEs from the Local Plan alone, it is next necessary to consider whether the effects of the policies in-combination with other plans and projects would combine to result in an LSE on any Habitats site. It may be that the Local Plan alone will not have a significant effect but could have a residual effect that may contribute to in-combination effects on a Habitats site.

3.4.2 The DTA Handbook[22] notes that "*where an aspect of a plan could have some effect on the qualifying feature(s) of a European site, but that aspect of the plan alone are unlikely to be significant, the effects of that aspect of the plan will need to be checked in combination firstly, with other effects of the same plan, and then with the effects of other plans and projects*".

3.4.3 As such an in-combination assessment will be undertaken as part of the HRA process at both the screening stage (where no LSE are considered possible alone, but in-combination effects are likely) and at the Appropriate Assessment stage (where, following Appropriate Assessment and mitigation, an insignificant adverse effect is still likely which has the potential to act in-combination with other plans and projects).

3.4.4 The in-combination assessment presented in Chapter F of the DTA Handbook comprises a ten-step approach as illustrated in **Figure 3.2** below.

[20] Source: EC Case C-258-11 Reference for a Preliminary Ruling, Opinion of Advocate General Sharpston 'Sweetman' delivered on 22nd November 2012 (para 48)

[21] Source: EC Case C-127/02 Reference for a Preliminary Ruling 'Waddenzee' 7th Sept 2004 (para 48)

[22] Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. December 2019 edition UK: DTA Publications Ltd, www.dtapublications.co.uk

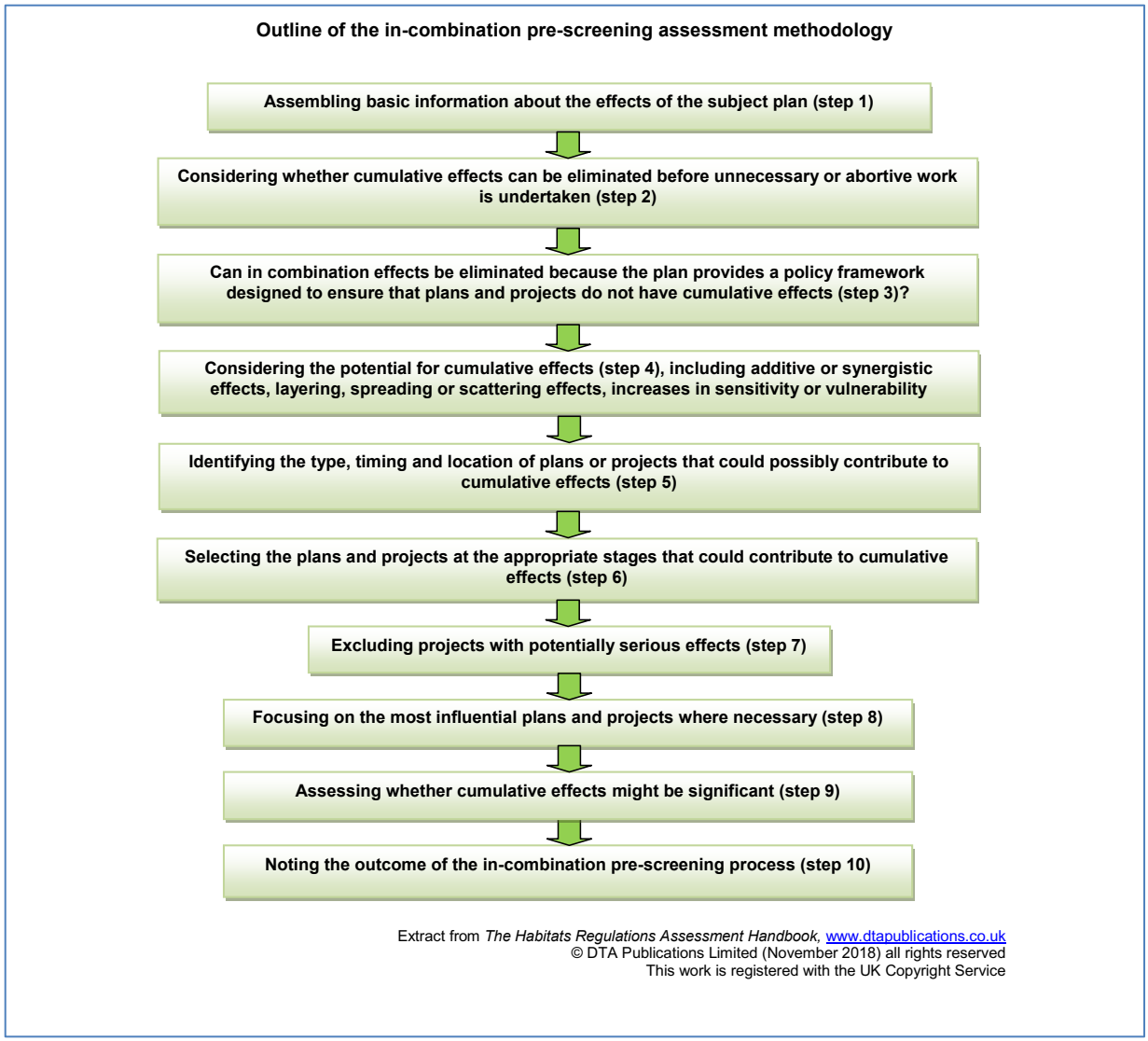

Figure 3.2: *Outline of the in-combination pre-screening assessment methodology*

3.4.5 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 which have the potential to increase development in the HRA study area, increase recreational pressures and result in hydrological change (water quality and resources).

3.4.6 It is recognised that the status of other plans and projects will change over the timescale of the Local Plan plan-making process. As such, and for the purposes of this stage of the HRA process, a list of plan and projects that will be considered in the in-combination assessment has been provided below.

- Anglian Draft Flood Risk Management Plan[23];

[23] Environment Agency (October 2021). Anglian River Basin District Draft Flood Risk Management Plan 2021 to 2027. Available at: https://consult.environment-agency.gov.uk/fcrm/draft-second-cycle-flood-risk-management-plans/supporting_documents/Anglian_FRMP_20212027WM.pdf [Date Accessed: 27/06/22]

- Anglian River Basin Management Plan[24];
- Anglian Water - Water Resource Management Plan[25];
- Broadland Catchment Abstraction Licence Strategy[26];
- Broadland Catchment Abstraction Management Area[27]
- Broadland District Council: Development Management DPD[28] and Site Allocations Development Plan Document[29];
- Broadland Rivers Catchment Plan[30];
- Broads Biodiversity and Water Strategy[31];
- East Suffolk District - Waveney Local Plan[32];
- Emerging Greater Norwich Local Plan[33];
- Emerging South Norfolk Village Cluster Housing Allocations Plan[34];
- Great Yarmouth Borough Council: Core Strategy Local Plan Part 1 and Local Plan Part 2[35];

[24] Environment Agency (2015). Water for life and livelihoods. Part 1Anglian River Basin District River Basin Management Plan. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718327/Anglian_RBD_Part_1_river_basin_management_plan.pdf [Date Accessed 09/06/22]

[25] Anglian Water (2019) Water Resources Management Plan 2019. Available at: https://www.anglianwater.co.uk/siteassets/household/about-us/wrmp-report-2019.pdf. [Date Accessed: 09/06/22]

[26] Environment Agency. May 2017. Broadland Abstraction Licensing Strategy. Available at: https://www.gov.uk/government/publications/cams-broadland-abstraction-licensing-strategy#:~:text=This%20licensing%20strategy%20sets%20out,new%20abstraction%20licence%20may%20be. [Date Accessed: 14/06/22]

[27] Environment Agency. May 2017. Broadland Abstraction Licensing Strategy. Available at: https://www.gov.uk/government/publications/cams-broadland-abstraction-licensing-strategy#:~:text=This%20licensing%20strategy%20sets%20out,new%20abstraction%20licence%20may%20be. [Date Accessed: 14/06/22]

[28] Broadland District Council (2015) Development Management DPD. Available at: https://www.southnorfolkandbroadland.gov.uk/downloads/file/134/development-management-dpd-adopted [Date Accessed: 14/06/22]

[29] Broadland District Council (2016) The Site Allocations Development Plan Document. Available at: https://www.southnorfolkandbroadland.gov.uk/downloads/file/140/site-allocations-dpd-adopted-2016 [Date Accessed: 14/06/22]

[30] Broadland Catchment Partnership (2014). Broadland Rivers Catchment Plan. Available at: https://broadlandcatchmentpartnership.org.uk/wp-content/uploads/2018/08/Catchment-Plan-website-final.pdf [Date Accessed: 09/06/22]

[31] Broads Authority (2019) Broads Biodiversity and Water Strategy 2019-2024. Available at: https://www.broads-authority.gov.uk/__data/assets/pdf_file/0029/180965/broads-biodiversity-strategy-2019.pdf [Date Accessed: 09/06/22]

[32] East Suffolk Council. 2019. Waveney Local Plan. Covering the former Waveney Local Planning Authority Area. Available at: https://www.eastsuffolk.gov.uk/assets/Planning/Waveney-Local-Plan/Adopted-Waveney-Local-Plan-including-Erratum.pdf Date Accessed: 27/06/22]

[33] The Greater Norwich Development Partnership (2022) Greater Norwich Local Plan. Available at: https://www.gnlp.org.uk/ [Date Accessed 09/06/22]

[34] South Norfolk Council (2021) South Norfolk Village Cluster Housing Allocations Plan. Available at: https://www.southnorfolkandbroadland.gov.uk/emerging-local-plan/south-norfolk-village-clusters-housing-allocations-plan [Date Accessed:14/06/22]

[35] Great Yarmouth Borough Council (2015, 2021) Adopted Local Plan Core Strategy, and Local Plan Part 2. Available at: https://www.great-yarmouth.gov.uk/article/2489/Current-Local-Plan#:~:text=The%20Local%20Plan%20sets%20out,use%20in%20determining%20planning%20applications. [Date Accessed: 14/06/2022]

- Joint Core Strategy for Broadland, Norwich and South Norfolk[36];
- Norfolk County Council Local Transport Plan 4 Strategy 2021 – 2036[37];
- Norfolk County Council Minerals and Waste Local Plan Review[38];
- Suffolk County Council Local Transport Plan Part 2 – 2011 - 2031[39];
- Suffolk County Council Minerals and Waste Local Plan[40];
- Norfolk Water Strategy Programme[41];
- North Norfolk Local Plan 2016 - 2036[42];
- Norwich City Council: Development Management Policies[43] and Site Allocations and Site Specific Policies[44];
- Broads Sustainable Tourism Strategy[45];
- The Broads Plan[46]; and
- Broads Waterways Management Strategy[47].

[36] Greater Norwich Development Partnership (2017) Joint Core Strategy for Broadland, Norwich and South Norfolk. Available at: https://www.southnorfolkandbroadland.gov.uk/downloads/file/263/joint-core-strategy-adopted-document-2014 [Date Accessed: 14/06/22]

[37] Norfolk County Council. Norfolk County Council Local Transport Plan 4 Strategy 2021 – 2036. Available at: https://www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/roads-and-travel-policies/local-transport-plan [Date Accessed: 27/06/22]

[38] Norfolk County Council. Minerals and Waste Local Plan Review. Available at: https://www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/minerals-and-waste-planning-policies/norfolk-minerals-and-waste-local-plan-review [Date Accessed: 27/06/22]

[39] Suffolk County Council. Suffolk County Council Local Transport Plan Part 2. Available at: https://www.suffolk.gov.uk/assets/Roads-and-transport/public-transport-and-transport-planning/2011-07-06-Suffolk-Local-Plan-Part-2-lr.pdf [Date Accessed: 27/06/22]

[40] Suffolk County Council. 2020. Minerals and Waste Local Plan. Available at: https://www.suffolk.gov.uk/assets/planning-waste-and-environment/Minerals-and-Waste-Policy/Minerals-and-Waste-SMWLP-Adopted/Chapters-1-to-18-SMWLP-Adopted-July-2020.pdf [Date Accessed: 27/06/22]

[41] Water Resources East (2021) Norfolk Water Strategy Programme. Available at: https://wre.org.uk/projects/norfolk-water-strategy-programme/ [Date Accessed: 09/06/22]

[42] North Norfolk District Council. January 2022. Publication Stage North Norfolk Local Plan 2016 – 2036. Available at: https://www.north-norfolk.gov.uk/media/7466/local-plan-proposed-submission-version-reg-19-publication.pdf [Date Accessed: 27/06/22]

[43] Norwich City Council (2014) Norwich Development Management Policies Local Plan. Available at: https://www.norwich.gov.uk/downloads/file/2693/adopted_norwich_development_management_policies_local_plan_document [Date Accessed: 27/06/22]

[44] Norwich City Council (2014) Site Allocations and Site Specific Policies. Available at: https://www.norwich.gov.uk/info/20242/site_allocations_and_site_specific_policies_plan[Date Accessed: 14/06/22]

[45] The Tourism Company. 2016. Sustainable Tourism in the Broads. Available at: https://www.broads-authority.gov.uk/__data/assets/pdf_file/0023/226247/Sustainable-Tourism-in-the-Broads-2016-20-May-2016.pdf [Date Accessed: 09/06/22]

[46] The Broads Authority (2017) Broads Plan 2017. Available at: https://www.broads-authority.gov.uk/__data/assets/pdf_file/0023/240665/Broads-Plan-2017.pdf [Date Accessed: 14/06/22]

[47] Waterways Management Strategy and Action Plan 2022/23 – 2026/27. Available at: https://www.broads-authority.gov.uk/__data/assets/pdf_file/0027/399240/Waterways-Management-Strategy-v1.2.pdf [Date Accessed: 27/06/22]

3.4.7 The approach taken to the consideration of in-combination effects is compliant with the Wealden Judgement[48] which requires an in-combination approach that considers the development of neighbouring and nearby authorities when assessing likely significant effects.

3.5 Consideration of mitigation measures

3.5.1 The European Court Judgement on the interpretation of the Habitats Directive in the case of People Over Wind and Sweetman vs Coillte Teoranta (Case C-323/17[49]) determined that mitigation measures are only permitted to be considered as part of an appropriate assessment.

3.5.2 It is therefore necessary to further define mitigation measures. The DTA Handbook notes that there are two types of measures as follows[50]:

- *"Measures intended to avoid or reduce harmful effects on a European site; or*
- *Features or characteristics of a plan which are essential in defining the nature, scale, location, timing, frequency or duration of the plan's proposals, or they may be inseparable aspects of the plan, without which an assessment of the plan could not properly be made, in the screening decision, even though these features or characteristics may incidentally have the effect of avoiding or reducing some or all of the potentially adverse effects of a plan".*

3.5.3 The HRA screening process undertaken for the Local Plan will not take 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 on Habitats sites. 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 plan.

3.6 Stage 2: Appropriate Assessment and Integrity Test

3.6.1 Where LSEs are identified from the Local Plan either alone or in-combination it is necessary to move to Stage 2 of the HRA process – the Appropriate Assessment and Integrity Test.

3.6.2 The purpose of the Appropriate Assessment (as defined by the DTA Handbook) is to *"undertake an objective, scientific assessment of the implications for the European site qualifying features potentially affected by the plan in light of their consideration objectives and other information for assessment"* [51].

[48] 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: 27/06/22]

[49] InfoCuria (2018) Case C-323/17. Available at: http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN [Date Accessed: 27/06/22]

[50] Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. November 2018 edition UK: DTA Publications Ltd, www.dtapublications.co.uk [Date Accessed: 09/06/22]

[51] Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. November 2018 edition UK: DTA Publications Ltd, www.dtapublications.co.uk [Date Accessed: 09/06/22]

3.6.3 As part of this process decision makers should take account of the potential consequences of no action, the uncertainties inherent in scientific evaluation and 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 Broads Plan or mitigation proposed through other plans or regulatory mechanisms. All mitigation measures must be deliverable and able to mitigate adverse effects for which they are targeted.

3.6.4 The Appropriate Assessment aims to present information in respect of all aspects of the Broads Plan and ways in which it could, either alone or in-combination with other plans and projects, affect a Habitats site.

3.6.5 The Broads Authority (as the Competent Authority) must then ascertain, based on the findings of the Appropriate Assessment, 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 and will draw on the conclusions of the HRA reports will be prepared in support of the Local Plan review taking into consideration representations made by Natural England.

3.7 Dealing with uncertainty

3.7.1 Uncertainty is an inherent characteristic of HRA, and decisions can be made only on currently available and relevant information. This concept is reinforced in the 7th of September 2004 'Waddenzee' ruling[52]:

3.7.2 "*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 appropriate assessment. 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".*

3.8 The Precautionary Principle

3.8.1 The HRA process is characterised by the precautionary principle. This is described by the European Commission as being:

3.8.2 *"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".*

[52]EC Case C-127/02 Reference for a Preliminary Ruling 'Waddenzee' 7th September 2004 Advocate General's Opinion (para 107)

4 Habitats sites

4.1 HRA Study Area

4.1.1 There is no guidance that defines the study area for inclusion in HRA. Planning Practice Guidance for Appropriate Assessment indicates that[53]:

4.1.2 "*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*".

4.1.3 Therefore, in order to determine a study area for the HRA, consideration has been given to the nature and extent of potential impact pathways from the Local Plan (see **Section 5**) and its relationship to Habitats sites. Where impact pathways to Habitats sites have been identified these are considered further in the HRA.

4.1.4 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 a plan area as set out in **Section 5.5**.

4.2 Identification of Habitats sites

4.2.1 Habitats sites to be assessed in this HRA report are identified in **Table 4.1**. The inclusion of sites has taken into consideration a review of pathways of impact (for instance recreational zones of influence and hydrological connectivity – **Section 5** and **Appendix A**) and previous HRA work undertaken in support of the current Local Plan (see **Section 2.2**).

[53] Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment. https://www.gov.uk/guidance/appropriate-assessment [Date Accessed: 09/06/22]

Table 4.1: *Habitats sites for consideration in the HRA*

Habitats site	Location in relation to the Broads Authority administrative area
Broads SAC	Located within administrative area
Broadland SPA	Located within administrative area
Broadland Ramsar	Located within administrative area
Breydon Water SPA	Located within administrative area
Breydon Water Ramsar	Located within administrative area
Outer Thames Estuary SPA	Located within administrative area (extending along the River Bure)
Great Yarmouth North Denes SPA	Located immediately adjacent to administrative area
Winterton-Horsey Dunes SAC	Located immediately adjacent to administrative area
Southern North Sea SAC	Located immediately adjacent to administrative area
Greater Wash SPA	Located immediately adjacent to administrative area
Benacre to Easton Bavents SPA	Approximately 7.3km to the south of the Broads Authority administrative area
Norfolk Valley Fens SAC	Closest component is located approximately 8.7km to the northwest of the Broads Authority administrative boundary
The Wash and North Norfolk Coast SAC	Approximately 28.3km to the north of the Broads Authority administrative area
North Norfolk Coast SAC	Approximately 28.3km to the north of the Broads Authority administrative area
North Norfolk Coast SPA	Approximately 28.3km to the north of the Broads Authority administrative area
North Norfolk Coast Ramsar	Approximately 28.3km to the north of the Broads Authority administrative area

4.2.2 The locations of these sites are shown in **Figures 4.1, 4.2** and **4.3.**

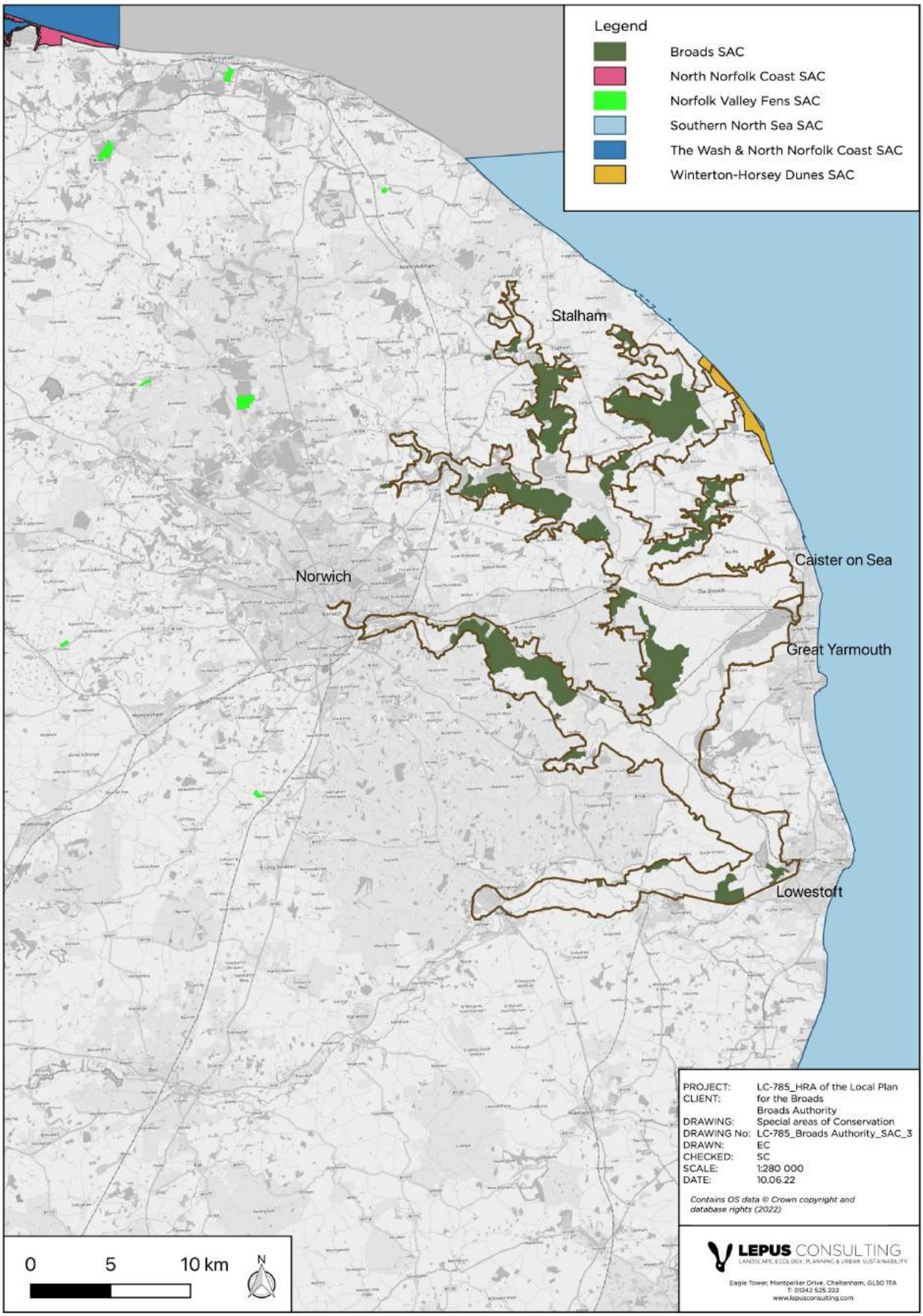

Figure 4.1: *SAC designations located within HRA study area*

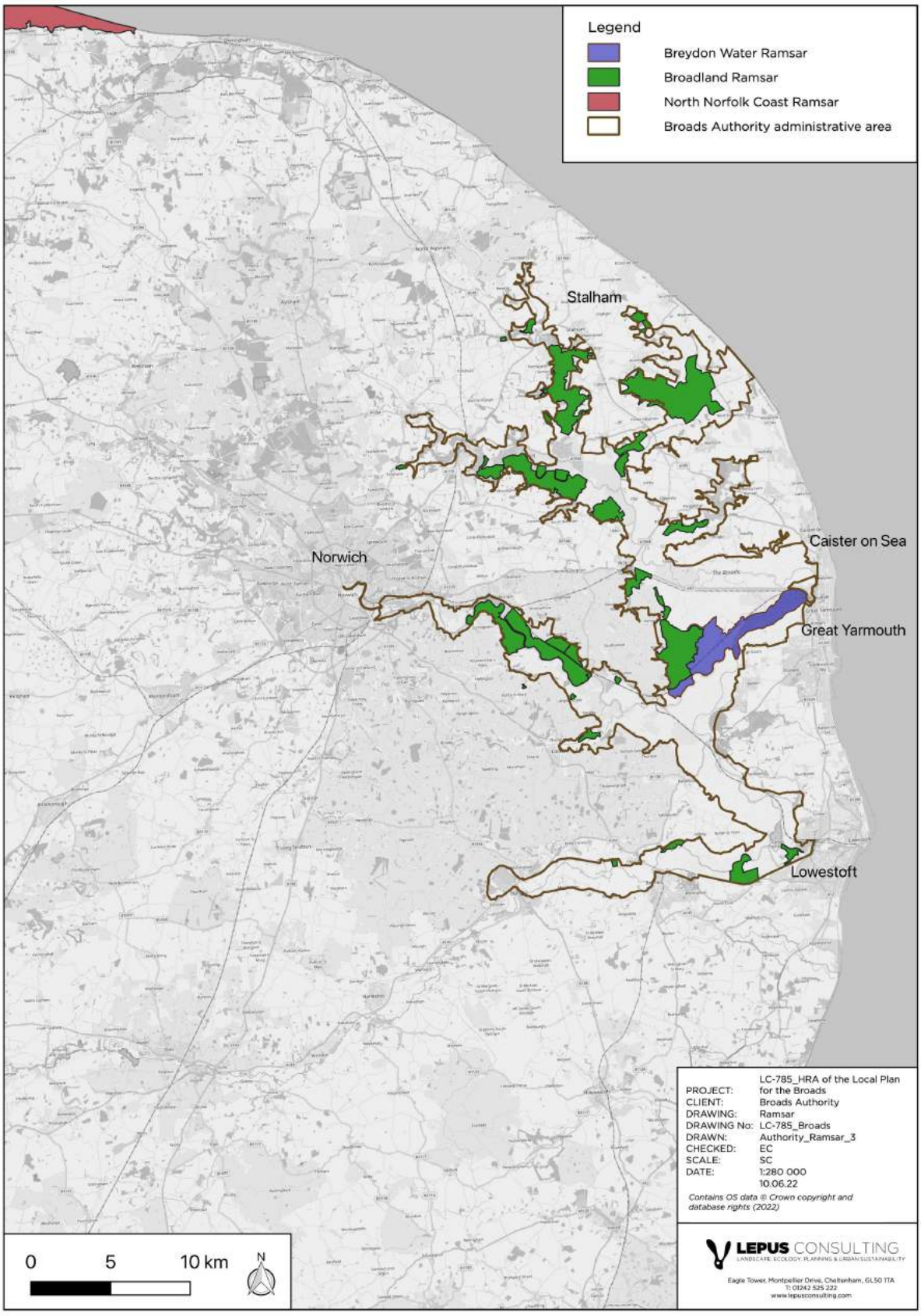

Figure 4.2: *Ramsar designations located within HRA study area*

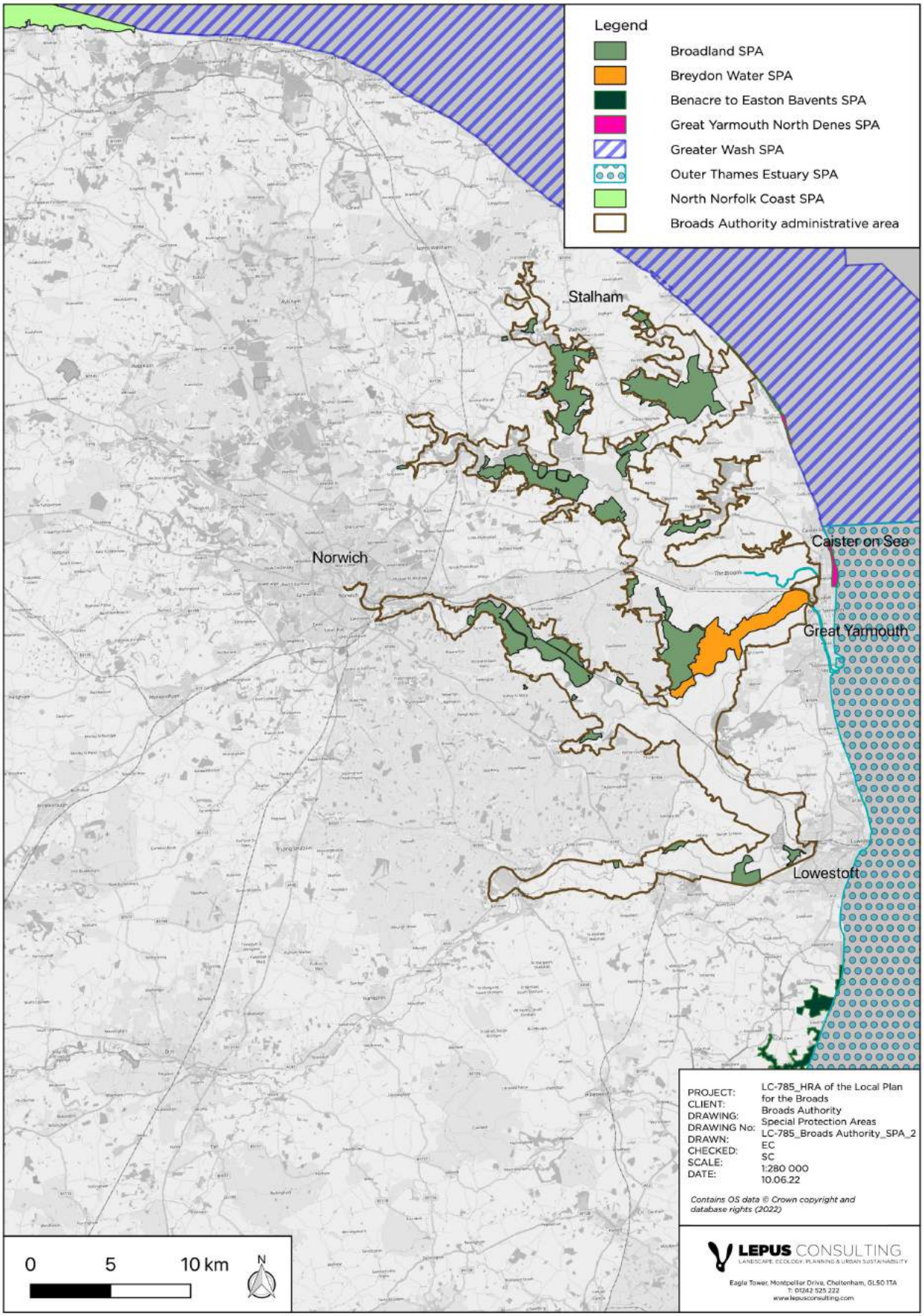

Figure 4.3: *SPA designations located within HRA study area*

4.2.3 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 the ecosystems that it does. 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 (see **Section 5**)).

4.2.4 An intrinsic quality of any Habitats site is its functionality at the landscape ecology scale. This refers to how the site interacts with the zone of influence of its immediate surroundings, as well as the wider area. Adverse effects may also occur via impacts to mobile species occurring outside a designated site, but which are qualifying features of the site. For example, there may be effects on protected birds that use land outside the designated site for foraging, feeding, roosting or other activities.

4.3 Ecological information

4.3.1 The CJEU ruling in the Holohan case (C-461/17[54]) confirmed that Appropriate Assessment should: (i) catalogue (i.e. list) all habitats and species for which the site is protected and (ii) include in its assessment other (i.e. non-protected) habitat types or species which are on the site and habitats and species located outside of the site if they are necessary to the conservation of the habitat types and species listed for the protected area (**Box 1**).

Box 1: Holohan v An Bord Pleanala (November 2018)

"Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the 'appropriate assessment' must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned".

4.3.2 This HRA will fully consider the potential for effects on species and habitats. This includes those not listed as a qualifying feature for the Habitats site, but which may be important to achieving its conservation objectives. This ensures that the functional relationships underlying Habitats sites and the achievement of their conservation objectives are adequately understood.

[54] EUR-Lex (2018) Case C-461/17. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62017CJ0461&from=EN [Date Accessed: 09/06/22]

4.3.3 **Appendix A** identifies the qualifying features of each of these sites and presents details of their conservation objectives. This information is drawn from the Joint Nature Conservancy Council (JNCC)[55] and Natural England[56].

4.3.4 The overall objective of the Habitats Regulations is to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of importance. Meeting site conservation objectives will ensure that the integrity of the National Site Network is maintained or restored as appropriate and ensures that each site contributes to achieving the 'favourable conservation status' of its qualifying features.

4.3.5 Natural England provides advice on what meeting conservation objectives means in terms of the environmental conditions (targets) and ecological requirements expected for designated habitats and species at sites which form the National Site Network. The targets are set to measure the condition of designated features, and progress towards meeting the objectives, is based on UK Common Standards for Monitoring Guidance (CSMG), published by the Joint Nature Conservation Committee.

4.3.6 Sites of Special Scientific Interest (SSSIs) are protected areas in the United Kingdom designated for conservation. SSSIs are the building blocks of site-based nature conservation in the UK. A SSSI will be designated based on the characteristics of its fauna, flora, geology and/or geomorphology. Whilst typically analogous in ecological function, the reasons for its designation can be entirely different to those for which the same area is designated as a SAC, SPA or Ramsar.

4.3.7 Natural England periodically assesses the conservation conditions of each SSSI unit against the CSMG standards. SSSIs located either entirely or partially within the Habitats sites considered in this report are listed in **Appendix B** along with their current conservation status. The conservation status of each SSSI highlights any SAC/SPA that is currently particularly vulnerable to threats/pressures. Conservation status is defined as follows:

- Favourable;
- Unfavourable – recovering;
- Unfavourable – no change; or
- Unfavourable – declining.

4.3.8 SSSI units in either an 'Unfavourable – no change' or 'Unfavourable – declining' condition indicate that the Euro Habitats pean site may be particularly vulnerable to certain threats or pressures. It is important to remember that the SSSI may be in an unfavourable state due to the condition of features unrelated to its Habitats designation. However, it is considered that the conservation status of SSSI units that overlap with Habitats designated sites offer a useful indicator of habitat health at that location.

[55] JNCC (2019) Available at: http://jncc.defra.gov.uk/page-1458 [Date Accessed: 09/06/22]

[56] Natural England (2019) Available at: http://publications.naturalengland.org.uk/ [Date Accessed: 09/06/22]

4.3.9 Natural England defines zones around each SSSI which may be at risk from specific types of development, these are known as Impact Risk Zones (IRZ). These IRZs are *"a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. The IRZs also cover the interest features and sensitivities of European sites, which are underpinned by the SSSI designation and "Compensation Sites", which have been secured as compensation for impacts on Natura 2000/Ramsar sites"*[57]. The location of IRZs has been taken into consideration in this assessment as they provide a useful guide as to the location of functionally linked land and likely vulnerabilities.

[57] Natural England (2019) Natural England's Impact Risk Zones for Sites of Special Scientific Interest User Guidance. Available at: https://magic.defra.gov.uk/Metadata_for_magic/SSSI%20IRZ%20User%20Guidance%20MAGIC.pdf [Date Accessed: 09/06/22]

5 Impact Pathways

5.1 Gathering information about impact pathways

5.1.1 It is important to understand how the Local Plan may affect a Habitats site in order to determine LSEs. Consideration must first be given to potential links or causal connections between the effects of the Local Plan and Habitats sites. This section of the report therefore scopes potential impact pathways to Habitats sites.

5.1.2 The Local Plan for the Broads sits under the Broads Plan. The Broads Plan is the key management plan for the Broads executive area. It sets out a long-term vision and guiding actions to protect and enhance the area's special qualities. The adopted Local Plan for the Broads has a shared vision with the Broads Plan as both plans guide the future of the Broads. This vision is centred around the protection of biodiversity, meeting the challenges of climate change and safeguarding its unique landscape.

5.1.3 The current objectives in the adopted Local Plan are designed to positively protect, conserve, and enhance the environment of the Broads whilst meeting the communities' needs. Increased development has the potential to result in a number of impacts such as atmospheric pollution (from traffic emissions), increased recreational pressures, urbanisation effects and changes in water flows and water quality at Habitats sites.

5.2 Threats and pressures

5.2.1 Threats and pressures to which Habitats sites are vulnerable have been identified through reference to data held by the JNCC and Natural England on Natura 2000 Data Forms, Ramsar Information Sheets and Site Improvement Plans (SIPs). This information provides current and predicted issues at each Habitats site. Supplementary advice notices prepared by Natural England provide more recent information on threats and pressures upon Habitats sites than SIPs and have therefore also been reviewed. A number of threats and pressures are unlikely to be exacerbated by the Local Plan for the Broads. Threats and pressures which could be affected by the Local Plan at each Habitats site are provided at **Appendix A**.

5.2.2 Following a review of HRA assessment work undertaken for the current adopted Local Plan and an identification of causal connections and links, the following themes are considered to be within the scope of influence of the Local Plan:

- **Air pollution:** Land use planning and increased recreational pressure during peak seasons 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)[58].
- **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.

[58] APIS (2016) Ecosystem Services and air pollution impacts. Available at: http://www.apis.ac.uk/ecosystem-services-and-air-pollution-impacts [Date Accessed: 09/06/22]

- **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.
- **Recreational impacts:** Increased development has the potential to increase recreational pressure upon Habitats sites which are accessible to the public. The development of recreational facilities also has the potential to increase recreational pressures.
- **Urbanisation impacts:** Urbanisation has the potential to result in disturbing activities (such as noise, lighting and visual disturbance). Disturbance effects may also impact upon both Habitats sites and their qualifying features when outside a designated site boundary.
- **Habitat loss, change in habitat type, degradation and fragmentation**: Land use planning has the potential to lead to the direct loss and / or degradation of Habitats sites and also impacts upon qualifying features which may occur outside a designated site boundary.

5.3 Air Pollution

5.3.1 Air pollution can affect a Habitats site if it has an adverse effect on its features of qualifying interest. The main mechanisms through which air pollution can have an adverse effect is through eutrophication (nitrogen), acidification (nitrogen and sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides). Deposition of air pollutants can alter the soil and plant composition and species which depend upon these.

5.3.2 As highlighted through the review of threats and pressures at Habitats sites, (**Appendix A**) air pollution, and in particular atmospheric nitrogen deposition, has been identified as a threat or pressure for qualifying features of a number of Habitats sites within the relevant Natural England SIPs and Supplementary Advice Notes.

5.3.3 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 upsets the ammonium and nitrate balance of the ecosystem, which disrupts the growth, structure and resilience of some plant species.

5.3.4 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.

5.3.5 As an attempt to manage the negative consequences of atmospheric nitrogen deposition, 'critical loads' and 'critical levels' have been established for ecosystems in 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*"[59].

5.3.6 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"*[60].

5.3.7 Natural England has prepared a standard methodology for the assessment of traffic related air quality impacts under the Habitats Regulations which is relevant to the HRA of plans which may result in a change in traffic flows[61]. In addition, the Institute of Air Quality Management (IAQM)[62] and the Chartered Institute of Ecology and Environmental Management (CIEEM)[63] have also prepared advice on the assessment of air quality impacts at designated sites. This guidance sets thresholds for screening of likely significant (air quality) effects at the HRA screening stage (Stage 1 of the HRA process) and methodologies for further Appropriate Assessment (Stage 2 of the HRA process) of air quality impacts where relevant.

5.3.8 The advice from Natural England notes that for screening LSEs, an assessment of the risks from road traffic emissions of 1,000 AADT or more (or a change in heavy-duty vehicle (HDV) flows on motorways of 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 200 AADT or more).

[59] UNECE (date unavailable) ICP Modeling and Mapping Critical loads and levels approach. Available at: https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 09/06/22]

[60] UNECE (date unavailable) ICP Modeling and Mapping Critical loads and levels approach. Available at: https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 09/06/22]

[61] 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: 09/06/22]

[62] 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.

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

5.3.9 The guidance also notes it is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance[64,65,66].

5.3.10 At this preliminary stage in the plan-making process, Natural England's guidance (in the form of a series of questions) has been applied to determine potential air quality pathways of impact to Habitats sites:

- Does the Local Plan give rise to emission 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?

5.3.11 The review and update the Local Plan will trigger development. The scale, location and nature of this development is however not known at this stage in the plan making process.

5.3.12 Baseline mapping data has been used to determine the proximity of Habitats sites, and their qualifying features, to roads which may result in an exceedance of Natural England's screening thresholds (A and B roads) within an approximate 10km buffer from the Broads Authority administrative area[67]. 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 A**), to determine whether there may be pathways of impact from the Local Plan to any Habitats site through a change in atmospheric emissions (**Table 5.1**).

[64] 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.

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

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

[67] 10km covers a sufficiently precautionary area over which traffic flows may increase due to development in the Broads Authority area due to the rural nature of the area.

Table 5.1: *Atmospheric pollution pathways of impact to Habitats sites*[68]

Habitats site name	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 Habitats sites which are within the 10km buffer[69]?	Is nitrogen deposition or acidification over 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	-	-	-
Breydon Water Ramsar	No	-	-	-
Outer Thames Estuary SPA	No	-	-	-
Great Yarmouth North Denes SPA	Yes	No	-	-
Winterton-Horsey Dunes SAC	Yes	No	-	-
Southern North Sea SAC	No	-	-	-
Greater Wash SPA	No	-	-	-
Benacre to Easton Bavents SPA	No	-	-	-
Norfolk Valley Fens SAC	Yes	No	-	-

5.3.13 Habitats sites which have been scoped into the HRA process (see **Table 5.1**) will be assessed further through HRA screening (Stage 1 of the HRA process) at Regulation 18 (Preferred Options). This will firstly take into consideration the scale and location of development in the context of the Local Plan. It will also look at traffic data, where available, to allow a comparison of flows from the Local Plan alone, and in-combination with other plans and projects, at the above Habitats sites against Natural England's AADT thresholds. It will also draw on APIS air pollution data for individual Habitats sites where relevant.

[68] 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.

[69] 10km covers a sufficiently precautionary area over which traffic flows may increase due to development in the Broads Authority area.

5.3.14 The next stages of the HRA process in terms of assessing air quality impacts are summarised in **Table 5.2**. It also sets out preliminary recommendations to be considered in the development of the Local Plan in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 5.2: *Air quality impacts: Recommendations and further work*

Mitigation recommendations and further work	
1	At Regulation 18 air quality impacts will be screened applying Natural England's screening thresholds and guidance.
2	It is recommended that the Broads Authority promote sustainable modes of transport and behavioural shifts in the Local Plan through site selection and development of policy wording. It is noted that the Issues and Options consultation includes detailed on provision of electric vehicle charging points.

5.4 Hydrology (water resource and water quality)

5.4.1 The Water Framework Directive (WFD) provides an indication of the health of the water environment and whether a water body is at good status or potential. This is determined through an assessment of a range of elements relating to the biology and chemical quality of surface waters and quantitative and chemical quality of groundwater. To achieve good ecological status or potential, good chemical status or good groundwater status every single element assessed must be at good status or better. If one element is below its threshold for good status, then the whole water body's status is classed below good. Surface water bodies can be classed as high, good, moderate, poor or bad status.

5.4.2 The WFD sets out areas which require special protection. These include areas designated for "*the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection including relevant Natura 2000 sites designated under Directive 92/43/EEC (the Habitats Directive) and Directive 79/409/EEC (the Birds Directive)*"[70].

5.4.3 The Broads Authority is located within the Anglian River Basin District area. This is divided into several management catchments, with the Authority situated within the Broadland Rivers catchment management area[71].

[70] Official Journal of the European Communities (2000) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF [Date Accessed: 27/06/22]

[71] https://environment.data.gov.uk/catchment-planning/RiverBasinDistrict/5

5.4.4 The Anglian River Basin Management Plan (RBMP)[72] 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. It provides strategic level policy guidance in relation to baseline classification of water bodies, statutory objectives for protected areas and water bodies and a summary of measures to achieve statutory protection in line with the WFD. The Anglian RBMP outlines a number of measures to tackle water management issues and achieve a series of environmental objectives set out within the plan. Within the Broadland Rivers management catchment area the priority river basin management issues include tackling diffuse pollution from rural areas, physical modification of rivers and lakes, and pollution from wastewater.

5.4.5 An HRA was undertaken alongside the preparation of the RBMP[73]. It concluded that, at the strategic plan level, and given the range of potential mitigation options available, the RBMP is not likely to have any significant effects on any Habitats site, alone or in combination with other plans or projects. It notes the requirement for project level HRA where necessary for lower tier plans.

5.4.6 Anglian Water is the potable water provider 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 stress[74]. Water companies divide their supply into Water Resource Zones (WRZs). The Broads authority administrative area lies within the 'Norwich and the Broads' WRZ, which is classed as being under serious water stress.

5.4.7 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. The Anglian Water 'Water Resources Management Plan 2019'[75] sets out objectives in relation to water management in the area, including a 'Demand Management Strategy' and a 'Supply-side Strategy'. An HRA was undertaken alongside the preparation of the WRMP[76]. This concluded there would be no adverse effects on the integrity of any Habitats site but highlighted the importance of lower tier project-level HRA of future plans, projects, or permissions which may act in-combination with WRMP options to refine mitigation strategies and assessment conclusions once appropriate detailed design is available.

[72] Environment Agency (2015) Anglian River Basin Management Plan. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718327/Anglian_RBD_Part_1_river_basin_management_plan.pdf [Date Accessed: 24/06/22]

[73] Environment Agency (2015). River basin management plan for the Anglian River Basin District Habitats Regulations Assessment Updated December 2015. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/496430/RBMP_HRA_Anglian_FINAL_Jan_2016.pdf [Date Accessed: 24/06/22]

[74] 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: 24/06/22].

[75] Anglian Water (2019) Water Resources Management Plan 2019. Available at: https://www.anglianwater.co.uk/siteassets/household/about-us/wrmp-report-2019.pdf [Date Accessed: 23/06/22]

[76] Mott McDonald. 2019. Anglian Water - Water Resources Management Plan Habitats Regulations Assessment Task II: Appropriate Assessment Final for Publication.

5.4.8 Urban development set out the Local Plan, has the potential to 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 run through them. Water mains leakage and sewer infiltration may also affect the water balance. In addition, new growth will increase water demand, changing the supply and demand for water resources in the region which may affect water levels. Features for which Habitats sites are designated are often sensitive to changes in water balance and levels. Therefore, any change to water flows through and water levels at a water sensitive Habitats sites has the potential to adversely affect the features for which they are designated.

5.4.9 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 (WwTWs) 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.

5.4.10 Advice from the Chief Planning Officer from the Department for Levelling Up, Housing and Communities (DLUHC) on 16 March 2022[77] and advice from Natural England on the same date, highlighted the importance of nutrient impacts on The Broads SAC and Broadlands Ramsar. This is relevant to components of the SAC and Ramsar which are in an unfavourable condition due to elevated and exceeded nutrient thresholds. These components include those underpinned by the following SSSIs:

- Ant Broads and Marshes SSSI;
- Bure Broads and Marshes SSSI;
- Trinity Broads and Marshes SSSI;
- Upper Thurne Broads and Marshes SSSI; and
- Yare Broads and Marshes SSSI.

5.4.11 Water quality data indicates that these SSSI designations are overall exceeding the targets for Total Phosphorus and Total Nitrogen. Within these areas, four units are achieving the target for Total Nitrogen (Cocksfoot Broad, Filby Broad, Ormesby Little Broad and Rollesby Broad Sailing Club).

5.4.12 Natural England's advice requires the Broads Authority (as the Competent Authority) to fully consider nutrients implications on these sites when determining relevant plans or projects and to secure appropriate mitigation measures. Natural England suggests nutrient neutrality may be a potential solution to enable developments to proceed in the catchment(s) (see **Figure 5.1**) where an adverse effect on site integrity cannot be ruled out[78]. Potential effects on water quality must be considered in the context of this advice.

[77] 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_Planner_Letter_about_nutrient_pollution___March_2022.pdf [Date Accessed: 09/06/22]

[78] 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 with the potential to affect water quality resulting in adverse nutrient impacts on habitats sites. 16 March 2022.

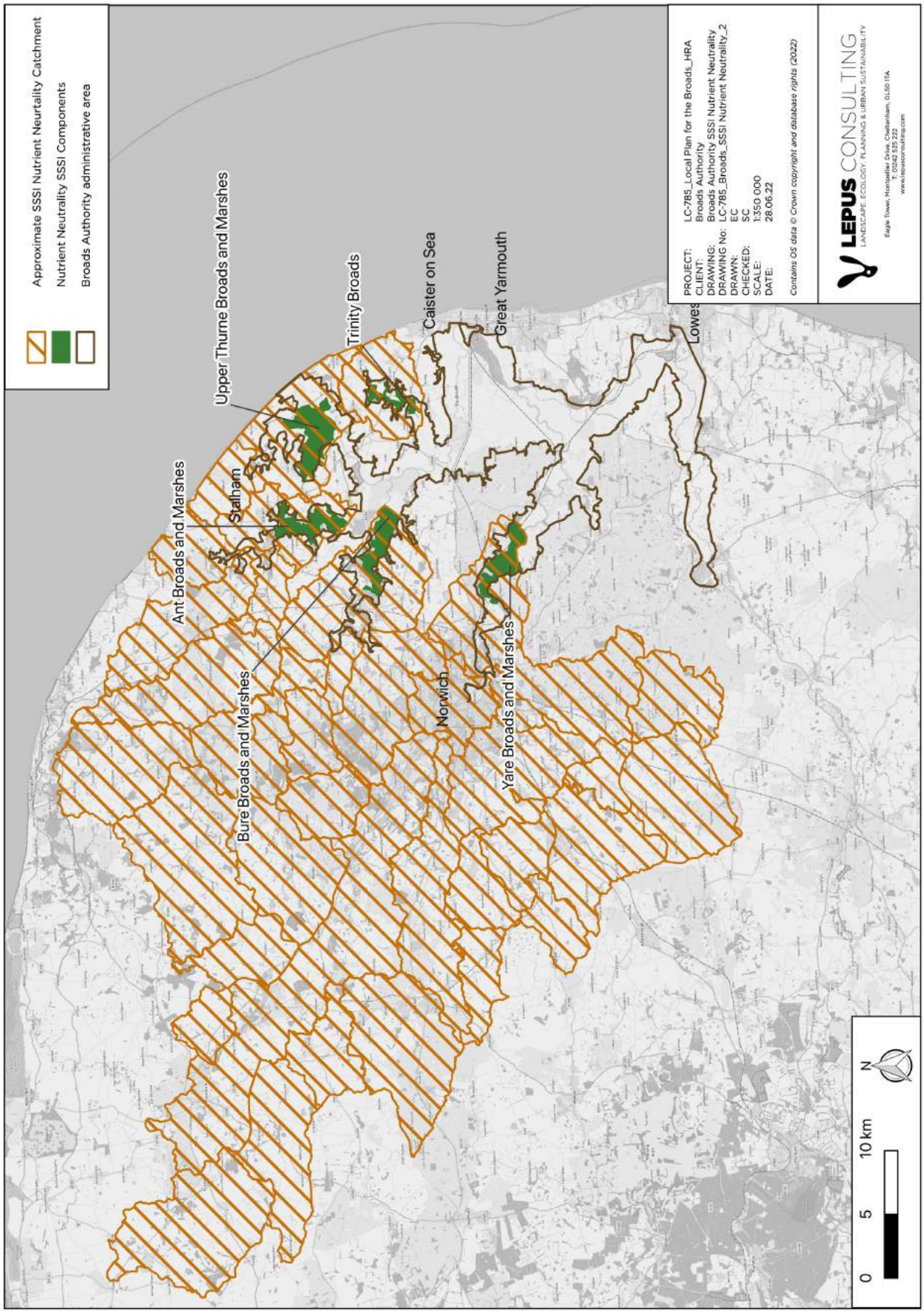

Figure 5.1: *Approximate SSSI Nutrient Neutrality Catchment area (based on Water Framework Directive catchments)*[79]

5.4.13 The Broads Authority is therefore currently working with all affected Local Planning Authorities to produce a strategic nutrient mitigation strategy. It is envisaged that this will be in place before adoption of the Local Plan and as such reflected in the HRA process.

5.4.14 Baseline data for Habitats sites (**Appendix A**) and information in relation to hydrological connectivity has been reviewed to determine whether there may be pathways of impact from the Local Plan to any Habitats site through a change in water quality or water levels (**Table 5.3**).

Table 5.3: *Water resource, levels and quality pathways of impact to Habitats sites*

Habitats site name	Is the Habitats site sensitive to a change in water quality and /or water level impacts and is it hydrologically connected to the plan area?	Will the Habitats site be scoped in for further assessment in the HRA process
Broads SAC	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	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	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	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 SAP such as through a change in the availability of food resource.	Yes
Breydon Water Ramsar	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 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.	Yes
Outer Thames Estuary SPA	The Outer Thames Estuary SPA is located within the Plan area (extending along the River Bure) and stretching from Caister-on-Sea in Norfolk (Suffolk) to Sheerness in Kent, and reaching as far as Canvey Island into the Thames Estuary. Hydrology impacts from onshore sources are not identified as a threat which could impact upon the qualifying features of this SPA (Appendix A). Habitat requirements for the qualifying bird species are located at some distance away from the influence of the Local Plan. As such water pathways of	No

[79] Environment Agency (2022) River basin districts. Available at: https://environment.data.gov.uk/catchment-planning/ [Date Accessed: 27/06/22]

Habitats site name	Is the Habitats site sensitive to a change in water quality and /or water level impacts and is it hydrologically connected to the plan area?	Will the Habitats site be scoped in for further assessment in the HRA process
	impact from the Local Plan are not considered likely. This Habitats site is therefore scoped out of the HRA process in terms of water impacts.	
Great Yarmouth and North Denes SPA	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 (Appendix A). However, habitat requirements for the little tern are located at some distance from the influence of the Local Plan. This Habitats site is therefore not considered further in terms of this pathway of impact.	No
Winterton-Horsey Dunes SAC	Winterton-Horsey Dunes SAC is located immediately adjacent to the Broads Authority administrative area and comprises a large acidic dune system with associated areas of grazing marsh, dune slacks, dune heath, dune grassland and downy birch dominated woodland with oaks. Hydrology impacts are identified as a threat which could impact upon this designation (Appendix A). However, the dune system associated with the SAC is unlikely to be influenced by actions set out in the Local Plan. As such this Habitats site is therefore not considered further in terms of this pathway of impact.	No
Southern North Sea SAC	The majority of the Southern North Sea SAC lies offshore, extending into coastal areas of Norfolk and Suffolk crossing the 12 nautical mile boundary and comprising a mix of habitats, such as sandbanks and gravel beds. Hydrology impacts from onshore sources are not identified as a threat which could impact upon the qualifying features of this designation (Appendix A). Habitat requirements for the harbour porpoise are located at some distance from the influence of the Local Plan. As such pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No
Greater Wash SPA	The Greater Wash SPA is located in the mid-southern North Sea, immediately adjacent to administrative area. Extensive areas of subtidal sandbanks are present off The Wash as well as north and east Norfolk coasts which support the qualifying species of bird. The SPA is not hydrologically linked with the Plan area, being outside the Broadlands River management area. As such pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No
Benacre to Easton Bavents SPA	Benacre to Easton Bavents SPA is located approximately 7.3km to the south of the Broads Authority administrative area outside the Broadlands River management area. It is not hydrologically connected to the Plan area and as such hydrology pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No
Norfolk Valley Fens SAC	The closest component of the Norfolk Valley Fens SAC is located upstream of the Plan area. As such hydrology pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No
The Wash and North Norfolk Coast SAC	This SAC is located approximately 28.3km to the north of the Plan area and is not hydrologically linked. As such pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No
North Norfolk Coast SAC	This SAC is located approximately 28.3km to the north of the Plan area and is not hydrologically linked. As such pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No
North Norfolk Coast SPA	This SPA is located approximately 28.3km to the north of the Plan area and is not hydrologically linked. As such pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No

Habitats site name	Is the Habitats site sensitive to a change in water quality and /or water level impacts and is it hydrologically connected to the plan area?	Will the Habitats site be scoped in for further assessment in the HRA process
North Norfolk Coast Ramsar	This Ramsar is located approximately 28.3km to the north of the Plan area and is not hydrologically linked. As such pathways of impact are not considered likely. This Habitats site is therefore not considered further in terms of this pathway of impact.	No

5.4.15 The next stages of the HRA process in terms of assessing hydrology impacts are summarised in **Table 5.4**. It also sets out preliminary recommendations to be considered in the development of the Local Plan in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 5.4: *Hydrology impacts: Recommendations and further work*

Recommendations and Further Work	
1	At Regulation 18 water quality and water quantity impacts will be screened drawing on other elements of the evidence base such as a Water Cycle Study and consultation with Anglian Water. This will also take into consideration the emerging strategic approach to nutrient neutrality.
2	It is recommended that the Broads Authority ensure methods of protecting water quality and quantity be promoted in the Local Plan through site selection and development of policy wording. This may be through a strategic mitigation solution for nutrient neutrality, incorporation of Sustainable Urban Draining System (SuDS) to protect water quality and promotion of water efficiency methods. It is noted that the Issues and Options consultation sets out the Broad's current position on nutrient neutrality and addressees water efficiency in new development.

5.5 Recreational impacts

5.5.1 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. Typically, disturbance of habitat and species is the unintentional consequence of people's presence which can impact distribution of habitat types and breeding success and survival.

5.5.2 Increased development and the promotion of the Broads as a tourist destination has the potential to increase recreational and navigational pressures upon Habitats sites which are accessible to the public.

5.5.3 A common approach taken across the UK to address recreational impacts at Habitats 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).

5.5.4 In 2015 and 2016 Norfolk County Council/the Norfolk Biodiversity Partnership (NBP) commissioned visitor surveys on behalf of all local planning authorities, to determine current and projected visitor patterns to Habitats sites across Norfolk[80]. Based on this work, a ZoI was established for each Habitats site within the study area based on resident and tourist visitors. Drawing on the visitor survey data, the Councils[81] 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 Impact Avoidance and Mitigation Strategy (RAMS)[82]. This strategy is referred to as GIRAMS and provides information to support Local Planning Authorities (LPAs) in Norfolk in their statutory requirement to produce 'sound' i.e. legally compliant Local Plans for their administrative or Plan making areas and is of relevance to the Broads Authority area[8384]. Relevant ZoI which were established through the visitor survey work (for both residential and tourism development) have been applied in this assessment to determine recreational impact pathways from the Broads Plan to Habitats sites. These have informed Natural England's SSSI IRZs. An overall ZoI map has been prepared for the Norfolk RAMS which covers the whole county. The ZoI for tourist accommodation is 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: The 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;
- Roydon and Dersingham Bog SAC and Ramsar;
- Norfolk Valley Fens SAC; and
- The Wash: The Wash SPA, The Wash Ramsar and The Wash and North Norfolk Coast SAC.

[80] 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.

[81] 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

[82] 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.

[83]Broads Authority. Habitat Mitigation. Available at: https://www.broads-authority.gov.uk/planning/other-planning-issues/habitat-mitigation [Date Accessed: 27/06/22]

[84] Broads Authority. Annex A: Norfolk Recreational disturbance Avoidance and Mitigation Strategy (RAMS) Habitat Regulation Assessment (HRA) Record. Available at: 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: 27/06/22]

5.5.5 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[85,86]. This Strategy set outs a tariff-based approach to mitigating the impact of recreational disturbance on Habitat 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 Green Space (SANGS) or green infrastructure 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 is defined as 13km. The Local Plan administrative area is only located with 13km Benacre to Easton Bavents SPA. As such this Habitats site has been included in this assessment when considering recreational LSEs.

5.5.6 Both the Norfolk GIRAMS and the Suffolk RAMS are both currently being implemented by the Broads Authority.

5.5.7 The next stages of the HRA process in terms of assessing recreational impacts are summarised in **Table 5.5**. It also sets out preliminary recommendations to be considered in the development of the Local Plan in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 5.5: *Recreational impacts: Recommendations and further work*

	Recommendations and Further Work
1	At Regulation 18 potential recreational impacts will be considered in context of the location of allocations and existing and proposed formal and informal recreational space. This will take into consideration Norfolk GIRAMS and Suffolk RAMS.
2	It is recommended that the Broads Authority ensure formal and informal recreation provision is sufficient to accommodate new growth and meet the requirements of strategic recreational mitigation strategies. It is noted that the Issues and Options consultation addresses the provision of Local Green Space.

[85] 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.

[86] 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: 27/06/22]

5.6 Urbanisation effects

5.6.1 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. 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 of approximately 400m. As such this buffer distance will be applied in the case of urbanisation effects at the screening stage (at Regulation 18 of the plan-making process) on a site-by-site basis, taking into consideration the sensitivities of each Habitats site individually. Habitats sites located within and immediately adjacent to the Broads Authority administrative area are considered potentially vulnerable to such impacts and have therefore been scoped into this assessment for further consideration in the HRA process:

- The Broads SAC;
- Broadlands SPA;
- Broadlands Ramsar;
- Breydon Water SPA;
- Breydon Water Ramsar;
- Outer Thames Estuary SPA;
- Great Yarmouth North Denes SPA; and
- Winterton-Horsey Dues SAC.

5.6.1 The next stages of the HRA process in terms of assessing urbanisation impacts are summarised in **Table 5.6**. It also sets out preliminary recommendations to be considered in the development of the Local Plan in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 5.6: *Urbanisation impacts: Recommendations and further work*

Recommendations and Further Work	
1	At Regulation 18 potential urbanisation impacts will be considered in context of the proximity of allocations to Habitats sites and their individual sensitives.
2	It is recommended that the Broads Authority consider urbanisation effects when siting allocations – i.e. avoid location of sites within approx. 400m of any Habitats site or area of potential functionally linked site.

5.7 Habitat loss, degradation and fragmentation and change in habitat type

5.7.1 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 (increased recreation and urbanisation impacts). It also has the potential to result in impacts upon qualifying features (for instance mobile species of bird) when located outside a designation boundary, known as functionally linked habitat[87].

5.7.2 The term 'functional linkage' is defined by Natural England as "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 European site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status"[88].

5.7.3 In addition to direct loss or degradation of habitat (designated or functionally linked), development has the potential to result in the fragmentation of habitats through the loss of connecting corridors which would hinder the movement of mobile qualifying species which are associated with some designations.

5.7.4 The tests set out under Article 6(3) and 6(4) of the Habitats Regulations need to be applied in respect of plans or projects which may significantly affect functionally linked habitat that plays an important role in contributing to the favourable conservation status of the relevant species for which a Habitats site is designated.

5.7.5 The CJEU ruling in the Holohan case (**Box 1**) confirmed that habitat and / or species which are located outside of a designated site, if they are necessary to the conservation of the habitat types and species listed for the protected area, must be considered in an Appropriate Assessment.

5.7.6 The HRA will therefore focus on Habitats sites, or associated areas of potentially functionally linked land, which are located within or adjacent to the Broads Authority administrative area (listed below). Impacts upon both designated and functionally linked sites / species will be considered in terms of water, public access and disturbance (recreational pressures and urbanisation impacts) and air quality impacts as discussed in **Sections 5.3** to **5.6** above.

- The Broads SAC;
- Broadlands SPA;
- Broadlands Ramsar;
- Breydon Water SPA;
- Breydon Water Ramsar;
- Outer Thames Estuary SPA;
- Great Yarmouth North Denes SPA; and
- Winterton-Horsey Dunes SAC.

[87] "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.

[88] 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.

5.7.7 The next stages of the HRA process in terms of assessing habitat loss, change in habitat type, degradation and fragmentation are summarised in **Table 5.7**. It also sets out preliminary recommendations to be considered in the development of the Local Plan in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 5.7: *Habitat loss, change in habitat type, degradation and fragmentation impacts: Recommendations and further work*

Recommendations and Further Work	
1	At Regulation 18 potential habitat impacts will be considered in context of the proximity of allocations to Habitats sites and their individual sensitives.
2	At Regulation 18 a review will be undertaken of allocations to determine potential impacts upon functionally linked land.
3	It is recommended that the Broads Authority consider effects when locating allocations and through development of policy wording. No designated sites to be lost.

5.8 Issues and Options Preliminary Screening

5.8.1 Following the identification of Habitats sites for inclusion in the HRA and potential pathways of impact from the Local Plan, the next stage in the HRA process will be Screening (**Section 3.2**).

5.8.2 The Local Plan is not directly connected with or necessary to the management of any Habitats site. Neither can it be excluded or eliminated from the HRA process. Therefore, it is necessary to identify whether there are any aspects of the plan which may lead to likely significant effects (LSEs) at a Habitats site, either alone or in combination with other plans or projects – Screening.

5.8.3 LSEs are discussed in **Section 3.3** and comprise an effect which may undermine the conservation objectives for the qualifying features of a Habitats site, either alone or in-combination. Identification of LSEs will trigger the requirement for an Appropriate Assessment – Stage 2 of the HRA process. Appropriate Assessment allows effects to be assessed in more detail and mitigation measures applied.

5.8.4 Screening for LSEs is normally undertaken at the preferred options stage when policies and allocations are known and again at Regulation 19 to ensure any changes are captured. Screening at Preferred Options will comprise a detailed analysis of all components of the Local Plan against Screening criteria set out in **Table 3.1.**

5.8.5 The Issues and Options consultation does not contain any policies or details on allocations, instead it identifies specific issues upon which consultation is sought.

5.8.6 **Table 5.8** provides an analysis of the themes addressed in the Issues and Options consultation, to highlight key issues for consideration in future stages of the HRA and plan making processes.

Table 5.8: *Preliminary screening of issues and options themes presented in the Issues and Options*[89]

Issues and Options theme	Summary of theme	Key issues for consideration in HRA and plan-making process
Vision and Objectives	The issues and options report sets out potential amendments to the Local Plan objectives which reflect the themes set out in this table.	The vision and objectives provide a positive framework for nature conservation and will be drawn upon to inform the HRA process.
Climate change	This chapter sets out how the Authority plans for climate change through: - Adaption - Energy design of new buildings - Electric vehicle charging points - Source of heating - Construction methods and materials used	Measures to address climate change will have a positive impact upon Habitats sites. An example is the promotion of electric vehicles (through charging points) which will lead to improvements in air quality. Consideration of climate change throughout the plan development could make reference to the benefits of climate change to ecological resilience and the multifunctional benefits that arise from climate change adaption for nature conservation.
Trees, woodlands, hedges and shrubs	This chapter presents the option of including an additional policy on trees, woodlands, hedges and shrubs within the Local Plan. It highlights the benefits of these features including those for nature conservation and climate change.	Inclusion of a trees, woodlands, hedges and shrubs policy is likely to have a positive impact on Habitats sites. These features connect areas of designated habitat with areas of functionally linked land and provide multifunctional benefits such as improving air quality.

[89] The Broads Authority. The Local Plan for the Broads Review. Issues and Options Consultation. July 2022

Peat	This chapter highlights the environmental benefits of peat. It looks at options around the existing peat policy in terms of the volume of peat extracted and the manner in which it is disposed of.	As noted in this chapter, peat provides benefits for both climate change and biodiversity which will interact positively with Habitats sites. The conservation of this asset is likely to have beneficial impacts.
Energy efficiency of existing housing stock	This chapter looks at options for policy to influence the energy efficiency of the existing housing stock.	This policy is unlikely to affect Habitats sites.
Flood resilience of existing dwellings	This chapter looks at options to improve the resilience of dwellings to flooding through policy design requirements.	This policy is unlikely to affect Habitats sites.
Wind energy	This policy looks at options around allocating sites for wind energy within the Local Plan.	Windfarms have the potential to have LSEs on the qualifying features of Habitats sites for instance upon bird populations. This could be through creation of a collision risk, fragmentation of the landscape, creation of barriers to movement, loss of habitat and direct disturbance. The Royal Society for the Protection of Birds (RSPB) and Natural England promote a strategic approach to the consideration of suitable locations for wind energy taking into account constraints such as those upon Habitats sites. Natural England has published best practice advice on site selection which should be referred to in the plan making process[90, 91]. The allocation of any site promoted in the Local Plan will need to be assessed within the HRA process.
Local Green Space	This chapter provides the opportunity for other local green spaces to be put forward.	The protection of green spaces will have a positive effect for Habitats sites which are sensitive to recreational pressures but providing an alternative for the local community. They also form part of the green infrastructure network linking habitats together and making them more resilient. It may be helpful to reference the national green infrastructure standards[92] and the revised Accessible Natural Greenspace Standards (ANGSt) requirements[93] within the Local Plan. It is also recommended that any green infrastructure complement Local Nature Recovery Networks.
Quay heading in front of quay heading	This chapter looks at policy wording options for improvement of quay headings.	Depending on the option selected, in channel work is likely to have an LSE upon water sensitive Habitats sites and will therefore need to be considered in the HRA process once geographical information is known.
Water efficiency in new dwellings	This chapter looks at the possibility of including a new policy on water efficiency standards.	As noted under the climate change theme, tighter water efficiency standards will benefit water sensitive Habitats sites by reducing water

[90] Natural England. 2021. Natural England's Approach to Offshore Wind. Natural England Technical Information Note, TIN181. Natural England. Available at: http://publications.naturalengland.org.uk/publication/5400620875120640 [Date Accessed: 04/07/22]

[91] Natural England. Making space for renewable energy: assessing on-shore wind energy development. Available at: http://publications.naturalengland.org.uk/file/97013 [Date Accessed: 04/07/22]

[92] Natural England. GI Framework Web Portal. https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx

[93] The revised ANGSt are a component of the green infrastructure standards and include additional targets for greenspace provision.

		demand the also the volume of water requiring treatment at WwTWs.
Tranquillity	This chapter looks at options for including tranquillity within Local Plan policy wording.	Tranquillity will have benefits for qualifying features of Habitats sites such as birds.
Farm diversification	This chapter looks at the information which should be submitted with proposals for farm diversification.	Diversification of farm buildings to holiday or residential dwellings may have implications for Habitats sites in terms of increased recreational pressures, the volume of water required for treatment at WwTWs (nutrient neutrality) and water demand. These topics will need to be explored in more detail in the HRA process.
Agricultural development	This chapter explores whether there is a need for a policy that helps guide agriculture development.	Depending on its nature, agricultural development can have implications for water quality through run off and nutrient neutrality. This will be a key consideration in the HRA process.
Marketing	This chapter looks at marketing of sites.	Unlikely to be LSEs.
Sites allocated for change	This chapter looks at sites which are currently allocated in the Local Plan, the status of which may change.	The HRA will provide a detailed assessment of all allocations alone, cumulatively and in-combination at Regulation 18, looking at pathways of impact set out in this chapter.
Changes/standards that may be introduced by the Government	This chapter looks at how changes / standards introduced by the Government may affect the Local Plan making process such as biodiversity net gain.	The adoption of ambitious biodiversity net gain targets will have a positive effect on Habitats sites, creating a bigger, better and more joined up green network. CIEEM provides useful guidance in relation to Biodiversity Net Gain[94] which could be adopted in the plan making process. Green (and Blue) Infrastructure could actively contribute towards and work alongside mandatory biodiversity net gain, future environmental net gain requirements, and be underpinned by Local Nature Recovery Networks.
Accessible homes	This chapter looks at design of accessible homes.	Unlikely to be LSEs.
Design	This chapter notes that the Local Plan policy relating to design will be updated.	Good design, in particular in relation to energy efficiency and water efficiency, will have positive impacts upon Habitats sites, such as a reduced water demand and improvements in air quality. There are number of frameworks which set out good design which could be adopted. The Wildlife Trusts (Gloucestershire Wildlife Trust) has developed a building with nature standard which is an accreditation scheme designed to enable developers to go beyond minimum standards[95].
Development boundaries	This chapter looks at the suitability of all settlements for a development boundary.	Unlikely to be LSEs.

[94] CIEEM. 2016. Biodiversity Net Gain. Good Practice Principles. Available at: https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development/ [Date Accessed: 04/07/22]

[95] Building with Nature. Available at: https://www.buildingwithnature.org.uk/about [Date Accessed: 04/07/22]

Housing need	This chapter looks for comments on housing need and marketing.	The HRA will provide a detailed assessment of all housing allocations alone, cumulatively and in-combination at Regulation 18, looking at pathways of impact set out in this chapter.
Residential moorings	This chapter explores options for residential moorings.	The HRA will provide a detailed assessment of all residential mooring allocations alone, cumulatively and in-combination at Regulation 18, looking at pathways of impact set out in this chapter.
Gypsy, traveller and travelling show people	This chapter explores gypsy, traveller and travelling show people need and potential sites (through a proposed call for sites).	The HRA will provide a detailed assessment of all gypsy, traveller and travelling show people allocations alone, cumulatively and in-combination at Regulation 18, looking at pathways of impact set out in this chapter.
Residential caravans	This chapter explores residential caravan need and potential sites (through a proposed call for sites).	The HRA will provide a detailed assessment of all residential caravan allocations alone, cumulatively and in-combination at Regulation 18, looking at pathways of impact set out in this chapter.

5.9 Summary

5.9.1 **Table 5.9** provides a summary of impact pathways which will be considered at each Habitats site in the HRA.

Table 5.9: *Summary of pathways of impact at each Habitat site from the Local Plan for the Broads*

Habitats Sites	Potential pathways of impact from the Local Plan to Habitats site				
	Air Pollution	Water Resources, Water Levels and Water Quality	Recreational effects	Urbanisation effects	Habitat loss, change in habitat type, degradation and fragmentation
Broads SAC	Vulnerable	Vulnerable	Vulnerable	Vulnerable	Vulnerable
Broadland SPA	Vulnerable	Vulnerable	Vulnerable	Vulnerable	Vulnerable
Broadland Ramsar	Vulnerable	Vulnerable	Vulnerable	Vulnerable	Vulnerable
Breydon Water SPA	No threat or pressure	Vulnerable	Vulnerable	Vulnerable	Vulnerable
Breydon Water Ramsar	No threat or pressure	Vulnerable	Vulnerable	Vulnerable	Vulnerable
Outer Thames Estuary SPA	No threat or pressure	No threat or pressure	Vulnerable	Vulnerable	Vulnerable
Great Yarmouth North Denes SPA	No threat or pressure	No threat or pressure	Vulnerable	Vulnerable	Vulnerable

Habitats Sites	Potential pathways of impact from the Local Plan to Habitats site				
	Air Pollution	Water Resources, Water Levels and Water Quality	Recreational effects	Urbanisation effects	Habitat loss, change in habitat type, degradation and fragmentation
Winterton -Horsey Dues SAC	No threat or pressure	No threat or pressure	Vulnerable	Vulnerable	Vulnerable
Southern North Sea SAC	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
Greater Wash SPA	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
Benacre to Easton Bavents SPA	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
Norfolk Valley Fens SAC	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
The Wash and North Norfolk Coast SAC	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
North Norfolk Coast SAC	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
North Norfolk Coast SPA	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
North Norfolk Coast Ramsar	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure

6 Conclusions

6.1 Summary

6.1.1 The purpose of this report is to ensure the HRA forms an integral element of the plan-making process and that best practice is followed.

6.1.2 Recommendations and further work required are set out in **Tables 5.2, 5.4, 5.5, 5.6** and **5.7**. These recommendations should inform the selection of allocations and development of the Local Plan policies.

6.1.3 This preliminary scoping assessment has concluded that the following Habitats sites will form the focus of the HRA.

- The Broads SAC;
- Broadlands SPA:
- Broadlands Ramsar;
- Breydon Water SPA;
- Breydon Water Ramsar;
- Outer Thames Estuary SPA;
- Great Yarmouth North Denes SPA;
- Winterton-Horsey Dunes SAC;
- Southern North Sea SAC;
- Greater Wash SPA;
- Benacre to Easton Bavents SPA;
- Norfolk Valley Fens SAC;
- The Wash and North Norfolk Coast SAC;
- North Norfolk Coast SAC;
- North Norfolk Coast SPA; and
- North Norfolk Coast Ramsar.

6.2 Next Steps

6.2.1 The next stage of the HRA process will comprise Phase 1 of the HRA process (see **Figure 2.1**). This will be a screening of the Preferred Options Local Plan at Regulation 18. All components of the Local Plan will be assessed against the HRA screening criteria (see **Table 3.1**). Screening will take into consideration case law and best practice and outcomes will ensure the HRA influences the plan-making process and site selections in an iterative manner. The output of screening will identify Likely Significant Effects (LSE) of the Local Plan on Habitats sites scoped into the HRA at this stage and identify whether further, more detailed, Appropriate Assessment will be required. It will also set out a number of recommendations intended to help ensure that the Local Plan does not affect the integrity of any Habitats site and detail methods for Appropriate Assessment.

6.2.2 This preliminary scoping stage and the formal screening of the Local Plan will be reported upon together in an Interim HRA which will accompany the Preferred Option consultation version of the Local Plan at Regulation 18.

6.2.3 Both the Local Plan and the HRA will be consulted upon with Natural England. As set out in the Habitats Regulations the Council must 'have regard' to Natural England's representations under the provisions of Regulations 63(3) and 105(2).

Appendix A: Habitats Site Conservation Objectives, Threats and Pressures

The Broads SAC[1]

Designation Overview

The Broads SAC 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 relict vegetation of the original Fenland flora, and collectively this site contains one of the richest assemblages of rare and local aquatic species in the UK. The dyke (ditch) systems are a stronghold of little whirlpool ram's-horn snail (*Anisus vorticulus*) and Desmoulin's whorl snail (*Vertigo m*oulinsiana) in East Anglia. The range of wetlands and associated habitats also provides suitable conditions for otters (*Lutra lutra*). The Broads is the richest area for stoneworts (*charophytes*) in Britain and contains the largest blocks of alder (*Alnus glutinosa)* wood in England with a complete successional sequences from open water through reedswamp to alder woodland, which has developed on fen peat. There is a correspondingly wide range of flora, including uncommon species such as marsh fern (*Thelypteris palustris*).

The Broads network also contains the largest example of calcareous fens in the UK. Relatively small transition mires have developed in re-vegetated peat-cuttings as part of the complex habitat mosaic of fen, carr and open water.

A few areas of Erica tetralix - Sphagnum compactum wet heath, Molinia meadows and related communities remain where the floodplain is still hydraulically connected to seepage zones on the edge of the 'upland', particularly from crag aquifers[2].

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

[1] Natural England (2018) The Broads SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/6427605842788352 [Date Accessed: 08/06/22]

[2] Natural England (2019) The Broads SAC Conservation Objectives Supplementary Advice. Available at: http://publications.naturalengland.org.uk/file/6067900213624832 [Date Accessed: 08/06/22]

H6410. Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); 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 whirlpool ram's-horn snail

* Priority natural habitats or species

Threats and Pressures at Habitats site which may be affected by the Local Plan[3,4]:

- Water pollution;
- Climate change;
- Adaptation to climate change;
- Change in land management;
- Public access/disturbance; and
- Air pollution (atmospheric nitrogen deposition).

[3] Natural England (2018) Broadland SIP (covering Broadland SPA and The Broads SAC). Available at: http://publications.naturalengland.org.uk/file/6218680128241664 [Date Accessed: 08/06/22]

[4] Natural England (2019) The Broads SAC Conservation Objectives Supplementary Advice. Available at: http://publications.naturalengland.org.uk/file/6067900213624832 [Date Accessed 08/06/22]

Broadlands SPA and Broadlands Ramsar[5]

Designation Overview

The Broadland SPA and Broadland Ramsar designations cover the same geographical area and are therefore discussed together below.

Broadland is a low-lying wetland complex created by a series of flooded medieval peat cuttings. They lie within the floodplains of five principal river systems, including the River Bure, River Yare and River Waveney and their major tributaries. They comprise a complex and interlinked mosaic of wetland habitats including open water, reedbeds, carr woodland, grazing marsh, tall herb fen, transition mire and fen meadow, forming one of the finest marshland complexes in the UK. This wetland mosaic has created a range of habitat types which in turn supports a variety of internationally important wintering and breeding raptors and waterbirds which are associated with the extensive lowland marshes. The estuary at the mouth of Broadland is designated as Breydon Water SPA and Breydon Water Ramsar site and the two sites adjoin each other at Halvergate Marshes. Breeding and wintering raptors, and wintering waterbirds spend time on feeding areas outside the Broadland SPA and Ramsar boundaries for instance within agricultural fields (on leftover potatoes and grain) and in adjacent grassland[6].

The internationally important bird populations are associated with a number of specific habitat types due to their nesting and feeding requirements. These include for instance reedbed, open water (freshwater pools and lakes, rivers and undisturbed creeks), emergent and floating vegetation, wetland fringe and open wetland habitat.

SPA 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 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.

[5] Natural England (2018) The Broads SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/6427605842788352 [Date Accessed: 08/06/22]

[6] Natural England (2019) Broadland SPA Conservation Objectives Supplementary Advice. Available at: http://publications.naturalengland.org.uk/publication/5310905998901248 [Date Accessed: 08/06/22]

Qualifying Features:

The qualifying features of the SPA are set out below:

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)[7].

The site meets the following Ramsar criteria:

- Criteria Ramsar criterion 2 (rare species and habitats within the biogeographical zone context, including the following Habitats Directive Annex I features and Annex II species)
    - Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*;
    - Alkaline fens Calcium-rich springwater-fed fens;
    - *Alluvial forests with Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*);
    - *Vertigo moulinsiana* Desmoulin`s whorl snail;
    - *Lutra lutra* Otter; and
    - *Liparis loeselii* Fen orchid.
- Criteria Ramsar criterion 6 (species/populations occurring at levels of international importance) - Qualifying Species/populations (as identified at designation): Species with peak counts in winter:
    - Tundra swan (*Cygnus columbianus bewicki*)i;
    - Eurasian wigeon (*Anas penelope*);
    - Gadwall (*Anas strepera strepera*); and
    - Northern shoveler (*Anas clypeata*).
- Criteria Ramsar criterion 6 (species/populations occurring at levels of international importance) - Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in winter:
    - Pink-footed goose (*Anser brachyrhynchus*); and
    - Greylag goose (*Anser anser anser*).

The site also supports an outstanding assemblage of rare plants and invertebrates including nine British Red Data Book plants and 136 British Red Data Book invertebrates.

[7] Annex II species present as a qualifying feature, but not the primary reason for selection of this site

Threats and Pressures at Habitats sites which may be affected by the Local Plan[8,9]:

- Water pollution;
- Climate change;
- Adaptation to climate change;
- Change in land management;
- Public Access/Disturbance; and
- Air pollution (atmospheric nitrogen deposition).

[8] Natural England (2018) Broadland SIP (covering Broadland SPA and The Broads SAC). Available at: http://publications.naturalengland.org.uk/file/6218680128241664 [Date Accessed: 08/06/22]

[9] Natural England (2019) The Broads SAC Conservation Objectives Supplementary Advice. Available at: http://publications.naturalengland.org.uk/file/6067900213624832 [Date Accessed: 08/06/22]

Breydon Water SPA and Breydon Water Ramsar [10]

Designation Overview

Breydon Water SPA and Breydon Water Ramsar designations cover the same geographical area and are therefore discussed together below.

Breydon Water is a large stretch of sheltered estuary and wetland habitat and 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 the only intertidal flats. The habitats present are influenced strongly by the tidal influences. Large numbers of internationally important wildfowl and waders overwinter at the site. They are attracted to the site by the mosaic of habitats (including intertidal mudflats, saltmarsh and freshwater grazing marsh) which provide a diversity of nesting and feeding options and an abundance of food resource[11]. It is strongly linked with the upstream Broadland SPA designation and birds use both habitats interchangeably.

SPA Conservation objectives:

Breydon Water SPA: 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 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:

The qualifying features of the SPA are set out below[12]:

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); and

[10] Natural England (2018) Breydon Water SPA SIP. Available at: http://publications.naturalengland.org.uk/file/5893824219447296 [Date Accessed: 08/06/22]

[11] Natural England (2018) Breydon Water SPA SIP. Available at: http://publications.naturalengland.org.uk/file/5893824219447296 [Date Accessed: 08/06/22]

[12] Natural England (2019) Breydon Water SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/4822248376762368 [Date Accessed: 08/06/22]

Waterbird assemblage.

The site meets the following Ramsar criteria:

- Criteria Ramsar criterion 5 (Assemblages of international importance) - Species with peak counts in winter: 68175 waterfowl (5 year peak mean 1998/99-2002/2003).
- Criteria Ramsar criterion 6 (species/populations occurring at levels of international importance) - Qualifying Species/populations (as identified at designation): Species with peak counts in winter:
    - Tundra swan (*Cygnus columbianus bewickii*); and
    - *Northern lapwing (Vanellus vanellus).*
- Criteria Ramsar criterion 6 (species/populations occurring at levels of international importance) - Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in winter:
    - Pink-footed goose (*Anser brachyrhynchus*);
    - Eurasian wigeon (*Anas penelope*);
    - Northern shoveler (*Anas clypeata*);
    - European golden plover (*Pluvialis apricaria apricaria*, *P. a. altifrons*); and
    - Black-tailed godwit (*Limosa limosa islandica*).

Threats and Pressures at Habitats site which may be affected by the Local Plan[13,14]:

Breydon Water SPA;

- Change in land management;
- Public access/disturbance; and
- Hydrological changes.

No identified threats or pressures to Breydon Water Ramsar.

[13] Natural England (2018) Breydon Water SPA SIP. Available at: http://publications.naturalengland.org.uk/file/5893824219447296 [Date Accessed: 08/06/22]

[14] JNCC. 2008. Information Sheet on Ramsar Wetlands. Breydon Water Ramsar https://jncc.gov.uk/jncc-assets/RIS/UK11008.pdf [Date Accessed: 08/06/22].

Outer Thames Estuary SPA[15]

Designation Overview

The Outer Thames Estuary SPA stretches from Caister-on-Sea in Norfolk (Suffolk) to Sheerness in Kent, and reaching as far as Canvey Island into the Thames Estuary. The SPA is divided into three discreet areas:

- The outer estuary of the Thames (including Kent and Essex coastal waters);
- The Suffolk and south Norfolk coastal waters;
- The offshore area further northeast; and

The site crosses the 12 nautical mile boundary and therefore lies partly in territorial and partly in offshore waters. The SPA consists of areas of shallow and deeper water, high tidal current streams and a range of mobile sediments. The seabed in the area of the Norfolk and Suffolk coast is of a similar composition to that in the main estuary with large shallow areas of mud, sand, silt and gravelly sediments. The coastal parts of the site consist of shingle and sand beaches, rapidly eroding low cliffs and mudflat-lined estuaries[16].

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 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:

The qualifying features of the SPA are set out below[17]:

- *Gavia stellata;* Red-throated diver (Non-breeding);
- *Sterna hirundo*; Common tern (Breeding); and
- *Sternula albifrons*; Little tern (Breeding).

[15] Natural England (2015) Outer Thames Estuary SPA SIP. Available at: http://publications.naturalengland.org.uk/file/5877617494327296 [Date Accessed: 08/06/22]]

[16] Natural England. Designated Site Information for the Outer Thames Estuary SPA. Available at: https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK9020309&SiteName=outer%20thames&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= [Date Accessed: 08/06/22]

[17] Natural England (2019) Outer Thames Estuary SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/5184120712069120 [Date Accessed: 08/06/22]

Threats and Pressures at Habitats site which may be affected by the Local Plan[18],[19]:

- Physical Loss (moderate vulnerability);
- Physical Damage (low vulnerability);
- Non-physical disturbance (high vulnerability);
- Toxic contamination (low - moderate vulnerability);
- Non-toxic contamination (example nutrient locading) (low vulnerability); and
- Biological disturbance (low to moderate vulnerability).

[18] Natural England (2015) Outer Thames Estuary SPA SIP. Available at: http://publications.naturalengland.org.uk/file/5877617494327296 [Date Accessed: 08/06/22]]

[19] JNNC and NE. 2013. Draft advice under Regulation 35(3) of The Conservation of Habitats and Species Regulations 2010 (as amended) and Regulation 18 of The Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2007 (as amended). Available at: http://publications.naturalengland.org.uk/publication/3233957 [Date Accessed: 08/06/22]

Great Yarmouth and North Denes SPA [20]

Designation Overview

Great Yarmouth and North Denes SPA is comprised of 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 (also designated as a SAC). These two component areas are linked, due to the high mobility of little terns, and to the dynamic nature of the beach shapes which influences suitability for breeding. Little tern populations found at Caister, Eccles, Kessingland and Scroby Sands are functionally linked to colonies protected within the Great Yarmouth North Denes SPA[21].

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 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:

The qualifying feature of the SPA is little tern (Breeding - *Sternula albifrons*)[22]. These are present at the SPA from mid-April to mid-September.

Threats and Pressures at Habitats site which may be affected by the Local Plan[23]:

- Coastal Squeeze;
- Public Access/Disturbance;
- Hydrological change; and
- Air pollution: impact of atmospheric nitrogen deposition.

[20] Natural England (2018) The Broads SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/6427605842788352 [Date Accessed08/06/22]

[21] Natural England. Designated Site Information for the Great Yarmouth and North Denes SPA. Available at: https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK9009271&SiteName=great%20Yarmouth&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= [Date Accessed: 08/06/22]

[22] Natural England (2019) Great Yarmouth North Denes SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/6450939770961920 [Date Accessed: 08/06/22]

[23] Natural England (2018) Great Yarmouth Winterton Horsey SIP (to cover Great Yarmouth North Denes SPA and Winterton-Horsey Dunes SAC). Available at: http://publications.naturalengland.org.uk/file/6277135286665216 [Date Accessed: 08/06/22]

Winterton-Horsey Dunes SAC[24]

Designation Overview

Winterton-Horsey Dunes SAC is a large acidic dune system with associated areas of grazing marsh, dune slacks, dune heath, dune grassland and downy birch dominated woodland with oaks. Actively accreting 'ness' features, support a full successional sequence of vegetation through foredune, mobile dune, semi fixed dune and dry acid dune grassland/ dune heath[25].

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:

The qualifying feature of the SAC include[26]:

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

Threats and Pressures at Habitats site which may be affected by the Local Plan[27]:

- Coastal Squeeze;
- Public Access/Disturbance;
- Hydrological change; and
- Air pollution: impact of atmospheric nitrogen deposition.

[24] Natural England (2018) Winterton-Horsey Dunes SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/5518326646177792 [Date Accessed: 08/06/22]

[25] Natural England (2018) Great Yarmouth Winterton Horsey SIP (to cover Great Yarmouth North Denes SPA and Winterton-Horsey Dunes SAC). Available at: http://publications.naturalengland.org.uk/file/6277135286665216 [Date Accessed: 08/06/22]

[26] Natural England (2018) Winterton-Horsey Dunes SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/5518326646177792 [Date Accessed: 08/06/22]

[27] Natural England (2018) Great Yarmouth Winterton Horsey SIP (to cover Great Yarmouth North Denes SPA and Winterton-Horsey Dunes SAC). Available at: http://publications.naturalengland.org.uk/file/6277135286665216 [Date Accessed: 08/06/22]

Southern North Sea SAC[28]
Designation Overview
The SAC designation stretches from the central North Sea (north of Dogger Bank) to the Straits of Dover in the south, covering an area of 36,951 km2. The majority of this site lies offshore, extending into coastal areas of Norfolk and Suffolk crossing the 12 nautical mile boundary. It comprises a mix of habitats, such as sandbanks and gravel beds, are included in the site[29].
Conservation objectives:
To ensure that the integrity of the site is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status (FCS) for Harbour Porpoise in UK waters. In the context of natural change, this will be achieved by ensuring that: • Harbour porpoise is a viable component of the site; • There is no significant disturbance of the species; and • The condition of supporting habitats and processes, and the availability of prey is maintained.
Qualifying Features:
The qualifying feature of the SAC is the Harbour porpoise (Phocoena phocoena) as it contains key winter and summer habitat for this species[30].
Threats and Pressures at Habitats site which may be affected by the Local Plan[31]:
• Recreational boating activity.

[28] JNCC. (2019) Southern North Sea SAC. Available at: https://jncc.gov.uk/our-work/southern-north-sea-mpa/ [Date Accessed: 08/06/22]

[29] JNCC. (2019) Southern North Sea MPA. Available at: https://jncc.gov.uk/our-work/southern-north-sea-mpa [Date Accessed: 08/06/22]

[30] JNCC (2019) Southern North Sea SAC Conservation Objectives. Available at: http://data.jncc.gov.uk/data/206f2222-5c2b-4312-99ba-d59dfd1dec1d/SouthernNorthSea-conservation-advice.pdf [Date Accessed: 08/06/22]

[31] JNCC (2019) Southern North Sea SAC Conservation Objectives. Available at: http://data.jncc.gov.uk/data/206f2222-5c2b-4312-99ba-d59dfd1dec1d/SouthernNorthSea-conservation-advice.pdf [Date Accessed: 08/06/22]

Greater Wash SPA[32]

Designation Overview

The Greater Wash SPA is located in the mid-southern North Sea between Bridlington Bay in the north and the Outer Thames Estuary SPA in the south. To the north, off the Holderness coast in Yorkshire, seabed habitats primarily comprise coarse sediments, with occasional areas of sand, mud and mixed sediments. Subtidal sandbanks occur at the mouth of the Humber Estuary, primarily comprising sand and coarse sediments. Offshore, soft sediments dominate, with extensive areas of subtidal sandbanks off The Wash as well as north and east Norfolk coasts. Closer inshore at The Wash and north Norfolk coast, sediments comprise a mosaic of sand, muddy sand, mixed sediments and coarse sediments, as well as occasional Annex I reefs. The area off the Suffolk coast continues the mosaic habitats mostly dominated by soft sediment[33].

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)

A065 *Melanitta nigra*; Common scoter (Non-breeding)

A177 *Hydrocoloeus minutus*; Little gull (Non-breeding)

A191 *Sterna sandvicensis*; Sandwich tern (Breeding)

A193 *Sterna hirundo*; Common tern (Breeding)

A195 *Sternula albifrons*; Little tern (Breeding)

Threats and Pressures at Habitats site which may be affected by the Local Plan[34]:

No threats or pressures identified by Natural England.

[32] Natural England (2019) Conservation Objectives for Greater Wash SPA. Available at http://publications.naturalengland.org.uk/publication/4597871528116224 [Date Accessed: 08/06/22]

[33] Natural England (2018) Citation - Greater Wash SPA. Available at http://publications.naturalengland.org.uk/publication/4597871528116224 [Date Accessed: 08/06/22]

[34] Natural England (2018) Citation - Greater Wash SPA. Available at http://publications.naturalengland.org.uk/publication/4597871528116224 [Date Accessed: 08/06/22]

Benacre to Easton Bavents SPA [35]

Designation Overview

Benacre to Easton Bavents Lagoons is a series of percolation lagoons. The lagoons (the Denes, Benacre Broad, Covehithe Broad and Easton Broad) have formed behind shingle barriers and are a feature of a geomorphologically dynamic system. Sea water enters the lagoons by percolation through the barriers, or by overtopping them during storms and high spring tides. The three southern lagoons receive freshwater inputs from the local ditch and channel networks.

Benacre to Easton Bavents SPA supports internationally important populations of Bittern, Marsh harrier and Little tern. The site includes areas of shingle, vegetated shingle, reedbed, and wetland habitats as well as geological and geomorphological features [36].

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)[37]

Threats and Pressures at Habitats site which may be affected by the Local Plan[38]:

- Public access/disturbance;
- Water pollution;
- Physical modification; and
- Changes in species distributions.

[35] Natural England (2017) Benacre to Easton Bavents SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/4812476415737856 [Date Accessed: 08/06/22]

[36] Natural England (2017) Benacre to Easton Bavents SPA SIP. Available at: http://publications.naturalengland.org.uk/publication/4812476415737856 [Date Accessed: 08/06/22]

[37] Natural England (2017) Benacre to Easton Bavents SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/4812476415737856 [Date Accessed: 08/06/22]

[38] Natural England (2017) Benacre to Easton Bavents SPA SIP. Available at: http://publications.naturalengland.org.uk/publication/4812476415737856 [Date Accessed: 08/06/22]

Norfolk Valley Fens SAC[39]

Designation Overview

Norfolk Valley Fens is one of two sites selected in East Anglia, in eastern England, where the main concentration of lowland Alkaline fens occurs. This site comprises a series of valley-head spring-fed fens. Such spring-fed flush fens are very rare in the lowlands. Most of the vegetation at this site is of the small sedge fen type, mainly referable to M13 *Schoenus nigricans – Juncus subnodulosus* mire, but there are transitions to reedswamp and other fen and wet grassland types.

The individual fens vary in their structure according to intensity of management and provide a wide range of variation. There is a rich flora associated with these fens, including species such as grass-of-Parnassus *Parnassia palustris*, common butterwort *Pinguicula vulgaris*, marsh helleborine *Epipactis palustris* and narrow-leaved marsh-orchid *Dactylorhiza traunsteineri*. Six other Annex I habitats are present as qualifying features, but are not a primary reason for the selection of this site.

Two Annex II species are present, narrow-mouthed whorl snail and Desmoulin's whorl snail are also a primary reason for the selection of the site.[40]

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;
- he 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 (*Festuco-Brometalia*); 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

[39] Natural England (2018) Norfolk Valley Fens SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/6684666086031360 [Date Accessed: 08/06/22]

[40] Natural England (2017) Norfolk Valley Fens SAC SIP. Available at: http://publications.naturalengland.org.uk/publication/6261291761008640 [Date Accessed: 08/06/22]

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.

Threats and Pressures at Habitats site which may be affected by the Local Plan[41]:

- Hydrological changes;
- Water pollution;
- Water abstraction;
- Change in land management;
- Changes in species distribution; and
- Air pollution: impact of atmospheric nitrogen deposition.

[41] Natural England (2017) Norfolk Valley Fens SAC SIP. Available at: http://publications.naturalengland.org.uk/publication/6261291761008640 [Date Accessed: 08/06/22]

The Wash and North Norfolk Coast SAC [42]

Designation Overview

The Wash is the largest marine embayment in Britain, with the second largest expanse of intertidal sediment flats in the country. These include extensive fine sands and drying banks of coarser sand which support a community characterised by large numbers of polychaetes, bivalves, and crustaceans. Subtidal sandbanks vary in composition and include coarse sand through to mixed sediment at the mouth of the embayment. Unusual subtidal communities include large areas of dense brittlestar beds and the small but extensive colonies of the reef-building ross worm S*abellaria spinulosa* which supports a diverse associated fauna.

The North Norfolk coast provides the only typical British example of a barrier beach system. Extensive areas of salt marsh with characteristic creek patterns have developed behind sand and shingle spits and bars. The open coast is characterised by large areas of clean mobile sand subject to functioning coastal and marine processes. Communities vary from typical estuarine examples characterised by the bivalve peppery furrow shell *Scrobicularia plana*, to lugworm *Arenicola marina* dominated muddier sand in the lee of islands and spits, to a sparse infauna in more exposed open coast areas.

The Wash and North Norfolk coast EMS is important for breeding and moulting of one of Europe's largest populations of common seal *Phoca vitulina*. The intertidal mudflats and salt marshes represent one of Britain's most important winter feeding areas for waders and wildfowl outside of the breeding season.[43]

Gibraltar Point (587ha) is of national importance for its sand dunes, other coastal habitats and associated fauna - notably invertebrates and passage and breeding birds. Other habitats present include; grassland, coastal lagoons, shingle, intertidal mud / sand and open water.

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

[42] Natural England (2018) The Wash & North Norfolk Coast SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/5950176598425600 [Date Accessed: 08/06/22]

[43] Natural England (2005) The Wash & North Norfolk Coast SAC Citation. Available at: http://publications.naturalengland.org.uk/publication/5950176598425600 [Date Accessed:28/06/22]

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 maritimae*)

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

S1355. *Lutra lutra*; Otter

S1365. *Phoca vitulina*; Common seal[44]

Threats and Pressures at Habitats site which may be affected by the Local Plan[45]:

- Public access/disturbance; and
- Coastal squeeze.

[44] Natural England (2018) The Wash & North Norfolk Coast SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/5950176598425600 [Date Accessed: 08/06/22]

[45] Natural England (2017) The Wash & North Norfolk Coast SAC SIP. Available at: http://publications.naturalengland.org.uk/publication/5327498292232192 [Date Accessed: 08/06/22]

North Norfolk Coast SAC, North Norfolk Coast SPA and North Norfolk Coast Ramsar

Designation Overview

The North Norfolk coast provides the only typical British example of a barrier beach system. Extensive areas of salt marsh with characteristic creek patterns have developed behind sand and shingle spits and bars. The open coast is characterised by large areas of clean mobile sand subject to functioning coastal and marine processes. Communities vary from typical estuarine examples characterised by the bivalve peppery furrow shell *Scrobicularia plana*, to lugworm *Arenicola marina* dominated muddier sand in the lee of islands and spits, to a sparse infauna in more exposed open coast areas.

Conservation objectives:

North Norfolk Coast SPA[46]:

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.

North Norfolk Coast SAC[47]:

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:

North Norfolk Coast SPA[48]:

A021 *Botaurus stellaris*; Great bittern (Breeding)

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

[46] Natural England (2019) North Norfolk Coast SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/4732349359063040 [Date Accessed: 08/06/22]

[47] Natural England (2019) North Norfolk Coast SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/6270240262455296 [Date Accessed: 08/06/22]

[48] Natural England (2019) North Norfolk Coast SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/6270240262455296 [Date Accessed: 08/06/22]

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

North Norfolk Coast SAC[49]:

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

S1355. *Lutra lutra*; Otter

S1395. *Petalophyllum ralfsii*; Petalwort

North Norfolk Coast Ramsar[50]:

The site meets the following Ramsar criteria:

- Ramsar 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, shingle banks and sand dunes. There are a series of brackish-water lagoons and extensive areas of freshwater grazing marsh and reed beds.
- Ramsar criterion 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.
- Ramsar criterion 5: and

[49] Natural England (2019) North Norfolk Coast SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/4732349359063040 [Date Accessed: 08/06/22]

[50] JNCC. 2008. Information Sheet on Ramsar Wetlands. North Norfolk Ramsar. Available at https://jncc.gov.uk/jncc-assets/RIS/UK11048.pdf [Date Accessed: 08/06/22].

Assemblages of international importance:
Species with peak counts in winter: 98462 waterfowl (5 year peak mean 1998/99-2002/2003)

- Ramsar criterion 6:
  Species/populations occurring at levels of international importance;
  - (*Thalasseus*) *sandvicensis sandvicensis*, W Europe;
  - Common tern, *Sterna hirundo hirundo*, N & E Europe;
  - Little tern, *Sterna albifrons albifrons*, W Europe;
  - Red knot, *Calidris canutus islandica*, W & Southern Africa;
  - Pink-footed goose, *Anser brachyrhynchus*, Greenland, Iceland/UK;
  - Dark-bellied brent goose, *Branta bernicla bernicla;*
  - Eurasian wigeon, *Anas penelope*, NW Europe;
  - Northern pintail, *Anas acuta,* NW Europe;
  - Ringed plover, *Charadrius hiaticula,* Europe/Northwest Africa;
  - Sanderling, *Calidris alba,* Eastern Atlantic; and
  - Bar-tailed godwit, *Limosa lapponica lapponica*, W Palearctic.

Threats and Pressures at Habitats site which may be affected by the Local Plan[51]:

North Norfolk Coast SPA and North Norfolk Coast SAC:

- Public access/disturbance; and
- Coastal squeeze.

North Norfolk Coast Ramsar:

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

[51] Natural England (2017) The Wash & North Norfolk Coast SAC SIP. Available at: http://publications.naturalengland.org.uk/publication/5327498292232192 [Date Accessed: 08/06/22]

Appendix B: Habitats sites and corresponding SSSI conservation status

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
The Broads SAC	Alderfen Broad SSSI	3	1 Favourable	n/a
			2 Unfavourable - recovering	n/a
	Ant Broads and Marshes SSSI	35	24 Favourable	n/a
			8 Unfavourable - recovering	n/a
			3 Unfavourable – declining	Possible nutrient enrichment.
	Barnby Broad and Marshes SSSI	24	11 Favourable	n/a
			13 Unfavourable - recovering	n/a
	Broad Fen, Dilham SSSI	1	1 Unfavourable - recovering	n/a
	Bure Broads and Marshes SSSI	14	5 Favourable	n/a
			4 Unfavourable – no change	n/a
			5 Unfavourable - recovering	n/a
	Burgh Common and Muckfleet Marshes SSSI	9	4 Favourable	n/a
			1 Unfavourable – no change	n/a
			4 Unfavourable - recovering	n/a
	Calthorpe Broad SSSI	3	2 Favourable	n/a
			1 Unfavourable - recovering	n/a
	Cantley Marshes SSSI	3	3 Favourable	n/a
	Crostwick Marsh SSSI	1	1 Unfavourable – no change	n/a
	Damgate Marshes, Acle SSSI	10	6 Favourable	n/a
			4 Unfavourable - recovering	n/a
	Decoy Car, Acle SSSI	6	4 Favourable	n/a

[1] Natural England. Designated Site View. https://designatedsites.naturalengland.org.uk/. Site condition data is provided for the SSSIs which legally underpin European site designations [Date Accessed: 08/06/22].

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
			2 Unfavourable - recovering	n/a
	Duncan's Marsh, Claxton SSSI	2	2 Unfavourable - recovering	n/a
	Geldeston Meadows SSSI	2	1 Unfavourable – no change	n/a
			1 Unfavourable – declining	No comment provided.
	Hall Farm Fen, Hemsby SSSI	1	1 Favourable	n/a
	Halvergate Marshes SSSI	36	25 Favourable	n/a
			2 Unfavourable – no change	n/a
			9 Unfavourable - recovering	n/a
	Hardley Flood SSSI	2	2 Favourable	n/a
	Limpenhoe Meadows SSSI	1	1 Unfavourable - recovering	n/a
	Ludham – Potter Heigham Marshes SSSI	6	6 Favourable	n/a
	Poplar Farm Meadows, Langley SSSI	1	1 Favourable	n/a
	Priory Meadows, Hickling SSSI	2	1 Favourable	n/a
			1 Unfavourable - recovering	n/a
	Shallam Dyke Marshes, Thurne SSSI	8	2 Favourable	n/a
			6 Unfavourable – no change	n/a
	Sprat's Water and Marshes, Carlton Colville SSSI	11	7 Favourable	n/a
			2 Unfavourable – no change	n/a
			2 Unfavourable - recovering	n/a
	Smallburgh Fen SSSI	1	1 Favourable	n/a
	Stanley and Alder Carrs, Aldeby SSSI	3	3 Unfavourable - recovering	n/a
	Trinity Broads SSSI	23	15 Favourable	n/a
			1 Unfavourable – no change	n/a
			7 Unfavourable - recovering	n/a
		19	11 Favourable	n/a

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
	Upper Thurne Broads and Marshes SSSI		3 Unfavourable – no change	n/a
			2 Unfavourable - recovering	n/a
			3 Unfavourable – declining	Water quality and abstraction.
	Upton Broad & Marshes SSSI	18	8 Favourable	n/a
			1 Unfavourable – no change	n/a
			9 Unfavourable - recovering	n/a
	Yare Broads and Marshes SSSI	28	7 Favourable	n/a
			10 Unfavourable – no change	n/a
			6 Unfavourable - recovering	n/a
			5 Unfavourable – declining	Nutrient enrichment. Overfeeding of duck for shooting with possible contribution from agricultural run-off.
Broadland SPA and Ramsar	Alderfen Broad SSSI	3	1 Favourable	n/a
			2 Unfavourable - recovering	n/a
	Ant Broads and Marshes SSSI	35	24 Favourable	n/a
			8 Unfavourable - recovering	n/a
			3 Unfavourable – declining	Possible nutrient enrichment.
	Barnby Broad and Marshes SSSI	24	11 Favourable	n/a
			13 Unfavourable - recovering	n/a
	Broad Fen, Dilham SSSI	1	1 Unfavourable - recovering	n/a
	Bure Broads and Marshes SSSI	14	5 Favourable	n/a
			4 Unfavourable – no change	n/a
			5 Unfavourable - recovering	n/a
	Burgh Common and Muckfleet Marshes SSSI	9	4 Favourable	n/a
			1 Unfavourable – no change	n/a
			4 Unfavourable - recovering	n/a
	Calthorpe Broad SSSI	3	2 Favourable	n/a

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
			1 Unfavourable - recovering	n/a
	Cantley Marshes SSSI	3	3 Favourable	n/a
	Crostwick Marsh SSSI	1	1 Unfavourable – no change	n/a
	Decoy Car, Acle SSSI	6	4 Favourable	n/a
			2 Unfavourable - recovering	n/a
	Duncan's Marsh, Claxton SSSI	2	2 Unfavourable - recovering	n/a
	Geldeston Meadows SSSI	2	1 Unfavourable – no change	n/a
			1 Unfavourable – declining	No comment provided.
	Hall Farm Fen, Hemsby SSSI	1	1 Favourable	n/a
	Halvergate Marshes SSSI	36	25 Favourable	n/a
			2 Unfavourable – no change	n/a
			9 Unfavourable - recovering	n/a
	Hardley Flood SSSI	2	2 Favourable	n/a
	Limpenhoe Meadows SSSI	1	1 Unfavourable - recovering	n/a
	Ludham – Potter Heigham Marshes SSSI	6	6 Favourable	n/a
	Poplar Farm Meadows, Langley SSSI	1	1 Favourable	n/a
	Priory Meadows, Hickling SSSI	2	1 Favourable	n/a
			1 Unfavourable - recovering	n/a
	Shallam Dyke Marshes, Thurne SSSI	8	2 Favourable	n/a
			6 Unfavourable – no change	n/a
	Sprat's Water and Marshes, Carlton Colville SSSI	12	7 Favourable	n/a
			2 Unfavourable – no change	n/a
			3 Unfavourable - recovering	n/a
	Smallburgh Fen SSSI	1	1 Favourable	n/a
	Stanley and Alder Carrs, Aldeby SSSI	3	3 Unfavourable - recovering	n/a
		19	11 Favourable	n/a

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
	Upper Thurne Broads and Marshes SSSI		3 Unfavourable – no change	n/a
			2 Unfavourable - recovering	n/a
			3 Unfavourable – declining	Water quality and abstraction.
	Upton Broad & Marshes SSSI	18	8 Favourable	n/a
			1 Unfavourable – no change	n/a
			9 Unfavourable - recovering	n/a
	Yare Broads and Marshes SSSI	28	7 Favourable	n/a
			9 Unfavourable – no change	n/a
			5 Unfavourable - recovering	n/a
			5 Unfavourable – declining	Nutrient enrichment. Overfeeding of duck for shooting with possible contribution from agricultural run-off.
Breydon Water SPA and Ramsar	Breydon Water SSSI	15	15 Favourable	n/a
	Halvergate Marshes SSSI	36	25 Favourable	n/a
			2 Unfavourable – no change	Pollution, lack of corrective works
			9 Unfavourable - recovering	n/a
Great Yarmouth North Denes SPA	Great Yarmouth North Denes SSSI	2	2 Favourable	n/a
	Winterton-Horsey Dunes SSSI	12	7 Favourable	n/a
			4 Unfavourable – no change	Inappropriate coastal management
			1 Unfavourable - recovering	n/a
Outer Thames Estuary SPA	Benfleet and Southend Marshes SSSI	10	1 Favourable	n/a
			2 Unfavourable – no change	Coastal squeeze
			7 Unfavourable - recovering	n/a
	Corton Cliffs SSSI	1	1 Favourable	n/a
	Crouch and Roach Estuaries SSSI	36	12 Favourable	n/a
			24 Unfavourable – recovering	n/a
	Dengie SSSI	8	5 Unfavourable - recovering	n/a

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
			3 Unfavourable - Declining	n/a
	Foulness SSSI	34	10 Favourable	n/a
			1 Unfavourable – no change	n/a
			1 Unfavourable - Declining	Undergrazing
			22 Unfavourable – recovering	n/a
	Great Yarmouth North Denes SSSI	2	2 Favourable	n/a
	Minsmere-Walberswick Heaths and Marshes SSSI	36	23 Favourable	n/a
			12 Unfavourable – recovering	n/a
			1 Unfavourable – no change	n/a
	Pakefield to Easton Bavents SSSI	33	23 Favourable	n/a
			1 Unfavourable – no change	Freshwater pollution, deer grazing
			8 Unfavourable - recovering	n/a
			1 Unfavourable - Declining	n/a
	The Cliff, Burnham-On-Crouch SSSI	1	23 Favourable	n/a
Southern North Sea SAC	SAC Monitored Features not allocated to unit(s)	n/a	n/a	n/a
Winterton-Horsey Dunes SAC	Winterton-Horsey Dunes SSSI	12	7 Favourable	n/a
			4 Unfavourable - No change	Inappropriate coastal management
			1 Unfavourable - Recovering	n/a
Greater Wash SPA	Beeston Cliffs SSSI	1	1 Unfavourable - Recovering	n/a
	Chapel Point - Wolla Bank SSSI	1	1 Favourable	n/a
	Dimlington Cliff SSSI	1	1 Favourable	n/a
	Gibraltar Point SSSI	5	2 Favourable	n/a
			2 Unfavourable - Recovering	n/a
			1 Unfavourable - Declining	Air pollution

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
	Happisburgh Cliffs SSSI	1	1 Favourable	n/a
	Humber Estuary - 2000480 SSSI	187	13 Favourable	n/a
			101 Unfavourable - Recovering	n/a
			36 Unfavourable - Declining	n/a
			2 Unknown	n/a
	Hunstanton Cliffs SSSI	1	1 Favourable	n/a
	Morston Cliff SSSI	1	1 Unfavourable - Recovering	n/a
	Mundesley Cliffs SSSI	1	1 Favourable	n/a
	North Norfolk Coast SSS	70	67 Favourable	n/a
			3 Unfavourable - Recovering	n/a
	Overstrand Cliffs SSSI	2	2 Favourable	n/a
	Saltfleetby - Theddlethorpe Dunes SSSI	2	1 Favourable	n/a
			1 Unfavourable - recovering	n/a
	Sidestrand and Trimingham Cliffs SSSI	3	2 Favourable	n/a
			1 Unfavourable – declining	Inappropriate coastal management
	The Lagoons SSSI	1	1 Unfavourable – no change	n/a
	The Wash SSSI	60	48 Favourable	n/a
			11 Unfavourable - Recovering	n/a
			1 Unfavourable - Declining	n/a
	West Runton Cliffs SSSI	1	1 Favourable	n/a
	Weybourne Cliffs SSSI	1	1 Favourable	n/a
	Winterton-Horsey Dunes SSSI	12	7 Favourable	n/a
			4 Unfavourable - No change	Inappropriate coastal management
			1 Unfavourable - Recovering	n/a
	Withow Gap, Skipsea SSSI	1	1 Favourable	
Benacre to Easton Bavents SPA	Pakefield to Easton Bavents SSSI	51	30 Favourable	n/a
			4 Unfavourable – no change	n/a

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
			17 Unfavourable - recovering	n/a
			1 Unfavourable – declining	Water pollution
			Partially destroyed	Coastal erosion
Norfolk Valley Fens SAC	Badley Moor SSSI	4	4 Favourable	n/a
	Booton Common SSSI	1	1 Unfavourable - Recovering	n/a
	Buxton Heath SSSI	1	1 Unfavourable - Recovering	n/a
	Coston Fen, Runhall SSSI	1	1 Unfavourable – No change	Freshwater drainage, lack of corrective works, inappropriate scrub control
	East Walton and Adcock's Common SSSI	3	3 Unfavourable - Recovering	n/a
	Flordon Common SSSI	2	1 Favourable	n/a
			1 Unfavourable - Recovering	n/a
	Foulden Common SSSI	7	2 Favourable	n/a
			4 Unfavourable - Recovering	n/a
			1 Unfavourable - Declining	Inappropriate water levels
	Great Cressingham Fen SSSI	1	1 Unfavourable - Recovering	n/a
	Holt Lowes SSSI	2	1 Favourable	n/a
			1 Unfavourable - Recovering	n/a
	Potter & Scarning Fens, East Dereham SSSI	2	2 Unfavourable - Recovering	n/a
	Sheringham and Beeston Regis Commons SSSI	2	2 Unfavourable - Recovering	n/a
	Southrepps Common SSSI	1	1 Unfavourable - Recovering	n/a
	Swangey Fen, Attleborough SSSI	6	5 Favourable	n/a
			1 Unfavourable - Declining	n/a
	Thompson Water, Carr and Common SSSI	11	8 Favourable	n/a
			2 Unfavourable - Recovering	n/a
			Unfavourable - Declining	Pollution

Habitats site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units[1]	Reason for unfavourable declining status where applicable.
The Wash and North Norfolk Coast SAC	Gibraltar Point SSSI	5	2 Favourable	n/a
			2 Unfavourable - recovering	n/a
			1 Unfavourable - Declining	Air pollution
	North Norfolk Coast SSSI	70	67 Favourable	n/a
			3 Unfavourable - recovering	n/a
	The Wash SSSI	60	48 Favourable	n/a
			11 Unfavourable - Recovering	n/a
			1 Unfavourable - Declining	n/a
North Norfolk Coast SAC	North Norfolk Coast SSSI	70	67 Favourable	n/a
			3 Unfavourable - recovering	n/a
North Norfolk Coast SPA and Ramsar	North Norfolk Coast SSSI	70	67 Favourable	n/a
			3 Unfavourable - recovering	n/a
	Morston Cliff	1	1 Unfavourable - recovering	n/a

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Ecological Services

Green Infrastructure

Landscape and Visual Impact Assessment

Landscape Character Assessment

Habitats Regulations Assessment

Strategic Environmental Assessment

Sustainability Appraisal

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