Environmental Statement Addendum – Chapter 12: Hydrology, Hydrogeology, Flood Risk and Surface Water Drainage Appendix 12.2



Land At Deal Ground and May Gurney, Norwich

Shadow Habitats Regulations Assessment

(including an Appropriate Assessment)

June 2023

Quality Management	
Client:	Serruys Property Company Ltd
Project:	Land at Deal Ground and May Gurney, Norwich
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Annex 6592/HRA1	Ecological designations in relation to the site
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1. Introduction and Background

- 1.1.1. Aspect Ecology is advising Serruys Property Company Ltd in respect of ecological matters relating to land at Deal Ground and May Gurney, Trowse, Norwich (for location, see Annex 6592/HRA1). The site is in receipt of outline planning permission (ref. 12/00875/O [Norwich City Council] and 2011/0152/O [South Norfolk Council]) for mixed development, including up to 670 residential dwellings and commercial uses with landscaping and biodiversity enhancements. The site is also allocated for residential-led mixed use development under the emerging Greater Norwich Local Plan (Policy GNLP0360). Part of the Deal Ground site is allocated under Policy R9 of Norwich City Council's adopted Local Plan (November 2014), while the May Gurney site is included as an existing commitment, on the basis of the existing outline consent, under Policy DM1.5 of South Norfolk's adopted Local Plan (October 2015).
- 1.1.2. A number of European designations are located within the site surrounds, and as such, the proposed development will need to be subject to a Habitats Regulations Assessment (HRA) under the Conservation of Habitats and Species Regulations 2017 (as amended). On this basis, this document sets out a Shadow Habitats Regulation Assessment (including an Appropriate Assessment) of the proposed development, identifying whether the specific proposals for the site are likely to result in an adverse effect on integrity of any international designations. This document forms part of the reserved matters submission for development of 670 residential dwellings at the site.

2. Legislation and Assessment Methodology

2.1. Legislation

- 2.1.1. All areas in England classified as Special Areas of Conservation (SACs) or Special Protection Areas (SPAs), collectively known as European sites, receive statutory protection under the Conservation of Habitats and Species Regulations 2017 (the Regulations). These Regulations transpose into UK legislation the 'Habitats Directive' 1992 (92/43/EEC) and the 'Birds Directive' 2009 (2009/147/EC). National planning policy in the form of the National Planning Policy Framework (NPPF) explicitly sets out that listed Ramsar sites should be considered in the same way, as if they had been classified or designated as SACs or SPAs.
- 2.1.2. The Regulations impose a duty on Local Planning Authorities (competent authorities) to carefully consider whether any proposals may have a significant effect on a European designation, either alone or in combination with other plans or projects. In most circumstances, permission may only be granted for a plan or project to proceed if it has been ascertained that it will not have an adverse effect on the integrity of any such designation.
- 2.1.3. The process for assessment is set out at regulation 63(1):

"A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which:

(a) is likely to have a significant effect on a European site or a European offshore marine site(either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site,

must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives".

2.1.4. Following this assessment, regulation 70(3) outlines when planning permission can be granted:

"... outline planning permission must not be granted unless the competent authority is satisfied (whether by reason of the conditions and limitations to which the outline planning permission is to be made subject, or otherwise) that no development likely adversely to affect the integrity of a European site or a European offshore marine site could be carried out under the permission, whether before or after obtaining approval of any reserved matters."

2.2. Assessment Methodology

- 2.2.1. Guidance on the process and procedures for assessment are contained in a number of documents, principally:
 - Habitats Regulations Assessments: Protecting a European site (Gov.uk)¹ government standing advice on HRA;

¹ Habitats Regulations Assessments: Protecting a European site. February 2021 https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site



- National Planning Policy Framework (NPPF) and the accompanying ODPM/DEFRA Circular (ODPM 06/2005, DEFRA 01/2005);
- Managing Natura 2000 sites 'The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission. Nov 2018;
- Assessment of plans and projects significantly affecting Natura 2000 sites. European Commission November 2001.
- 2.2.2. As set out within government standing advice and as laid out within the flow chart (Figure 1) within ODPM circular 06/2005 (see Appendix 5), the procedure for assessment is an ordered process following a number of key stages as discussed below.

Stage 1 :Screening

- 2.2.3. Box 1 of the flow chart is not of relevance to development proposals and hence the first stage is to identify whether the proposals will result in any 'likely significant effect' on the internationally important features of the European sites, either alone or in combination with other plans or projects (box 2 of the flow chart).
- 2.2.4. In line with the Court of Justice of the European Union (CJEU) ruling (People over Wind, Peter Sweetman v Coillte Teoranta, Case C-323/17, dated 12 April 2018), mitigation measures intended to avoid or reduce the harmful effects of a plan or project on a European site should not be taken into account at this screening stage, and instead these must be considered as part of an Appropriate Assessment (Stage 2).
- 2.2.5. Where it is considered that a plan or project will result in no such 'likely significant effects', no further assessment is necessary and permission should not be refused under the assessment.
- 2.2.6. If any 'likely significant effects' are identified or where it remains unclear whether effects will be significant, the assessment procedure should follow on to Stage 2 (box 3 of the flow chart).
- 2.2.7. In reaching this decision, the plan or project should be considered 'likely' to have an effect if the competent authority is unable on the basis of objective information to exclude the possibility that it could have significant effects on any European designation, either alone or in combination with other plans or projects. The test of significance is therefore set at a relatively low bar, with significant effects considered as any negative effects, i.e. effects that are neither negligible nor inconsequential, but which are capable of having an adverse effect².
- 2.2.8. If the proposal can be screened out for effects from it alone, it should then be screened for any potential for it to combine with any other proposals planned or underway. If, in combination the proposal could have a significant effect on a European designation, it is necessary to progress to Stage 2.

² Case C-258/11: Judgment of the Court (Third Chamber) of 11 April 2013 and Opinion of the Advocate General dated 22nd November 2012. Peter Sweetman and Others v An Bord Pleanála. Reference for a preliminary ruling: Supreme Court - Ireland



Stage 2: Appropriate Assessment

- 2.2.9. Should it be determined that a plan or project could result in 'likely significant effects' on a European site, as set out on the flow chart, the Competent Authority should proceed to the next stage within flow chart boxes 3 and 4 onwards. This requires an 'Appropriate Assessment' of the likely effects of the plan or project to be undertaken by the Competent Authority.
- 2.2.10. Under Appropriate Assessment, it is necessary to determine whether the proposals, either alone or in combination with other projects or plans, will result in any adverse effects on the integrity of the European designation as defined by the conservation objectives and status of the relevant SAC/SPA. The precautionary principle should be applied, and the focus should be on objectively demonstrating, with supporting evidence, that there will be no adverse effects on the integrity of the European site. Where this is not the case, adverse effects must be assumed.
- 2.2.11. It is the policy of the government that Ramsar sites should be treated in the same way as European designations.
- 2.2.12. In carrying out the Appropriate Assessment, under Regulation 63(3) it is necessary for the Competent Authority to consult with the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies. In England this body is Natural England.
- 2.2.13. If it is considered that the proposal will not adversely affect the integrity of the designation, either alone or in combination with other projects, permission can be granted. If this cannot be ascertained, or there is uncertainty, the assessment procedure should follow on to Stage 3.

Stage 3: Derogations: allow exceptions

- 2.2.14. Should a proposal fail the integrity test, in certain circumstances, a project may still be able to proceed under a derogation.
- 2.2.15. Under Stage 3, it is necessary to assess if there are alternative solutions and whether there are imperative reasons of overriding public interest. If these tests are passed, authorisation may be granted subject to compensation measures being secured.
- 2.2.16. Further details on the above process can be found in Government Guidance on Habitats Regulations Assessments³.

2.3. Case Law

2.3.1. The approach to undertaking Habitats Regulation Assessment has been informed and distilled through a number of court rulings. Accordingly, this assessment takes into account all such case law, and in particular highlights the following as being pertinent:

³ Habitats regulations assessments: protecting a European site. Government Guidance.

https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site



The need for no reasonable scientific doubt

- 2.3.2. It has been established that the competent authority may grant permission for a project following an appropriate assessment "only if they have made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects"⁴ (our emphasis). In addition, case law advises that the decision maker should be 'certain beyond reasonable scientific doubt'⁵ that no adverse effects will arise on the integrity of the designation.
- 2.3.3. The application of this test is further clarified by case law which advises that in reaching a conclusion, what is required is 'reasonable certainty' rather than 'absolute certainty'⁶ and that the risk should be 'real' (identifiable) rather than 'hypothetical' or 'fanciful'⁷.

The need for no lacunae

2.3.4. It has been established that the assessment "cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned"⁸ and that the assessment must "unequivocally demonstrate why the protected habitat types and species are not adversely affected"⁹.

The need to take into account conservation objectives

2.3.5. It is relevant that "where such a plan or project is likely to undermine the conservation objectives of the site concerned, it must necessarily be considered likely to have a significant effect on the site"¹⁰

Any mitigation measures must be sufficiently certain

2.3.6. Where mitigation measures are proposed (under an Appropriate Assessment), "it is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm, guaranteeing beyond all reasonable doubt that the project will not adversely affect the integrity of the area, that such a measure may be taken into consideration when the appropriate assessment is carried out."¹¹

The need to assess cumulative effects

2.3.7. It has been established that not only does the project or plan in question need to be considered, but cumulative effects from other relevant projects have to be assessed. In particular "*MN2000 makes clear that the phrase "in combination with other plans*"

⁴ C-127/02 Landjelijke Vereniging tot Behoud van de Waddenzee & Another v Staatssecretaris van Landbouw ("Waddenzee") [2005] 2 CMLR 31 at [59]

⁵ T.C. Briels & others v Minister van Infrastructuur en Milieu C-521/12 [2014]

⁶ WWF Uk Ltd And RSPB V SoS for Scotland

⁷ Boggis V Natural England & Waveney District Council [2009] Ewca Civ 1061 and R (Morge) v Hampshire County Council (2011)

⁸ C-258/11 Sweetman v An Bord Plenala [2014] PTSR 1092 at [44]

⁹ C-461/17 Holohan v An Bord Plenala [2019] Env LR 16 per AG Kokott at [30]

¹⁰ Judgment of the Court (Grand Chamber) of 7 September 2004, Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij, Case C-127/02

¹¹ C-164/17 Grace & Sweetman v An Bord Plenala at [51]



or projects" in Article 3 (3) refers to cumulative effects caused by the projects or plans that are currently under consideration together with the effects of any existing or proposed projects or plans. When impacts are assessed in combination in this way it can be established whether or not there may be, overall, an impact which may have significant effects on a Natura 2000 site or which may adversely affect the integrity of a site".¹²

The Assessment should be commensurate with the stage of planning

- 2.3.8. Advice from the Secretary of State confirms that Appropriate Assessments can be required at every stage of the planning process, from the allocation stage to the detailed, Reserved Matters or condition stage¹³. At each planning stage very different levels of detail are available, and *'each appropriate assessment must be commensurate to the relative precision of the plans at any particular stage and no more'¹⁴ (our emphasis).*
- 2.3.9. These principles are well established. An example, is the case of Commission v UK C-6/04 (2005) and the opinion of Advocate General Kokott¹⁵, which related to a complaint from the Commission that the United Kingdom had failed to transpose adequately various provisions of the Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ('the Habitats Directive'). It discusses the detail required within an Appropriate Assessment at paragraph 49:

"The United Kingdom Government is admittedly right in raising the objection that an assessment of the implications of the preceding plans cannot take account of all the effects of a measure. Many details are regularly not settled until the time of the final permission. It would hardly be proper to require a greater level of detail in preceding plans or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure".

- 2.3.10. In line with the judgement of R (Barker) v Secretary of State & Bromley LBC (2006-7) (European Court and House of Lords) [2007]¹⁶ 1 A.C. 470 and Wingfield, R v Canterbury City Council [2019] EWHC 1974 (Admin)¹⁷, AA can be required at the Reserved Matters and discharge of conditions stages.
- 2.3.11. This appropriateness of this approach has also been confirmed by the Wellington Appeal Decision 2022¹⁸ in which these precise issues were considered by a Planning Inspector.

¹² European Commission DG Environment (November 2001) 'Assessing Projects Under the Habitats Directive: Guidance for Competent Authorities, September 2011'

¹³ Statement made by George Eustice Secreatary of State for Environment, Food and Rural Affairs. 20 July 2022. https://questions-statements.parliament.uk/written-statements/detail/2022-07-20/hcws258

¹⁴ Feeney v Secretary of State for Transport & Ors [2013] EWHC 1238 (Admin)

¹⁵ Opinion of Advocate General Kokott June 2005. Case C-6/04

https://curia.europa.eu/juris/liste.jsf?language=en&num=C-6/04

¹⁶ https://publications.parliament.uk/pa/ld200607/ldjudgmt/jd061206/barker-1.htm

¹⁷ http://www.bailii.org/ew/cases/EWHC/Admin/2019/1974.html

¹⁸ Planning Inspectorate Appeal Ref: APP/W3330/W/22/3296248



Consultation

2.3.12. The Competent authority, in reaching their judgement, must take account of the view of the appropriate nature conservation body (Natural England), with "great / considerable" weight attached to such views and that a departure from these views requires "cogent and compelling reasons"¹⁹.

2.4. Other Relevant Guidance and Opinions of Weight

2.4.1. In addition to the interpretation of legislation that has emerged through the above case law, relevant guidance is also available from a number of other sources, as outlined below:

The Precautionary Principle

- 2.4.2. The precautionary principle is a core principle of EU environmental law. The European Commission²⁰ sets out that "the classic definition of 'a precautionary approach' comes from the 1992 Rio Declaration on Environment and Development, which states that: "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (UNEP 1992)."
- 2.4.3. Following on from the above definition, guidance sets out that "Non-discrimination means that comparable situations should not be treated differently, and that different situations should not be treated in the same way, unless there are objective grounds for doing so" and "Consistency means that measures should be of comparable scope and nature to those already taken in equivalent areas in which all scientific data are available"²¹.
- 2.4.4. In addition, this guidance also sets out that "Proportionality means tailoring measures to the chosen level of protection. Risk can rarely be reduced to zero". And "It is also necessary to clarify a misunderstanding as regards the distinction between reliance on the precautionary principle and the search for zero risk, which in reality is rarely to be found"²².
- 2.4.5. Finally, this guidance also further clarifies that *"measures based on the precautionary principle must not be disproportionate to the desired level of protection and must not aim at zero risk, something which rarely exists."*²³

Re-use of an existing HRA

2.4.6. If a project has already been assessed by the competent authority or a different competent authority, then there may be no need to repeat the assessment. In this

¹⁹ Shadwell Estates v Breckland DC [2013] EWHC 12 (Admin)

²⁰ European Commission Science for Environement Policy (September 2017) 'Future Brief: The Precautionary Princple: decision-making under uncertainty

 $^{^{\}rm 21}$ Commission of the European Communities (2.2.200) 'Communication from the Commission on the precautionary principle'

²² Ibid footnote 13

²³ Ibid footnote 13



regard guidance²⁴ is provided as to when it is appropriate to adopt this approach, namely when:

- There is no new information or evidence that may lead to a different conclusion
- The assessments already done are relevant, thorough and correct
- The conclusions are rigorous and robust
- There is no new case law that changes the way an HRA should be carried out or interpreted.

²⁴ Habitats Regulations Assessments: protecting a European site. Gov.uk. https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site



3. Local Guidance and Policies

- 3.1.1. This report has taken account of the following documents which are relevant to the local and regional context:
 - Habitats Regulations Assessment of Greater Norwich Regulation 19 Draft Plan for Greater Norwich Development Partnership (The Landscape Partnership Ltd, December 2020). Hereafter referred to as the 'Local Plan HRA';
 - Natural England's letter to planning authorities dated 16 March 2022: Advice for development proposals with the potential to affect water quality resulting in adverse nutrient impacts on habitats sites;
 - Norfolk Green Infrastructure and Recreational impact Avoidance and Mitigation Strategy (GIRAMS): Habitats Regulations Assessment Strategy Document (Place Services, March 2021);
 - Visitor surveys at European protected sites across Norfolk during 2015 and 2016 (Footprint Ecology, 2016);
 - Policy 3 (Environmental Protection and Enhancement) of the emerging Greater Norwich Local Plan.



4. Stage 1: Screening for Likely Significant Effects

4.1. Details of the Project

Site location	The site is located in Trowse, south-east Norwich, within an urban- edge context. The site is bound by the River Wensum to the north, beyond which lies industrial and former industrial land with a railway depot. The River Yare cuts through the site and bounds the site to the east, beyond which lies parkland (including Whitlingham Country Park) and residential development within the boundary of the Norfolk Broads Authority. An asphalt plant and railway line lies to the west of the site, with more dense development beyond this.
National grid	TG 247 074
reference	
Site description	The site comprises a number of different habitats, primarily comprising former industrial land in the north and south. Small areas of fen are present in the centre-east of the site, which extend offsite into Carrow Abbey Marsh CWS. Woody vegetation including wet and dry woodland, scrub, scattered trees, and Bramble thickets, is present in various locations across the site. In addition, relatively small areas of species-poor neutral grassland and tall ruderal vegetation are present in parts of the site.
Description of the proposals	The proposals are for a residential-led development of up to 670 residential units, in addition to landscaping and ecological enhancements. The site is in receipt of outline planning permission (ref. 12/00875/O [Norwich City Council] and 2011/0152/O [South Norfolk Council]) and is now subject to a reserved matters application.

4.2. Designations and Impact Pathways

Based on a review of the Habitats Regulations Assessment (HRA) of
the Greater Norwich Local Plan (December 2020) ²⁵ , a number of
European designations are to be considered in terms of potential
effects (in order of their proximity to the site):
 River Wensum SAC, located 5.4 km to the north-west of the site;
• The Broads SAC, located 5.5 km to the east of the site;
 Broadland SPA and Ramsar, located 5.5 km to the east of the site;
 Norfolk Valley Fens SAC, located 11.3 km to the south-west of the site;
• Breydon Water SPA and Ramsar, located 18.7 km to the east of the site.
Based on a review of the HRA of the Greater Norwich Local Plan, a
number of potential impact pathways have been identified in

²⁵ The Landscape Partnership Ltd (December 2020). Habitats Regulations Assessment of Greater Norwich Regulation 19 Draft

Plan for Greater Norwich Development Partnership.



relation to European designations. Those relevant to the proposed development are: • Increased recreational pressure; • Increased pressure on water resources (i.e. abstraction); • Water quality pollution impacts (incl. nutrient sensitivity); • Air quality pollution impacts. Urbanisation impacts such as cat predation, fly-tipping, and lighting, are scoped out of further assessment. These impacts are only relevant where a proposed development lies in close proximity (i.e. within 1 km) of a European designation, according to the draft Local Plan HRA. As such, the site is considered to be suitably separated from European designations to avoid impacts associated with urbanisation. Comments provided by Natural England dated 13 October 2022, in respect of ES Scoping, scoped in a single issue, namely nutrient sensitivity.

4.2.1. On this basis, further detail is set out below in relation to relevant European designations and whether a likely significant effect may occur as a result of the proposed development, either alone or in combination with other plans and projects.

4.3. River Wensum SAC

-	
European site interest features	The River Wensum SAC is designated on the basis of the Annex I habitat 'Water courses of plain to montane levels' with <i>Ranunculus</i> vegetation, and its population of the Annex II species White-Clawed Crayfish <i>Austropotamobius pallipes</i> .
	 In addition, the following Annex II species are present as qualifying features, but are not a primary reason for site selection: Desmoulin's Whorl Snail Vertigo moulinsiana; Brook Lamprey Lampetra planeri; Bullhead Cottus gobio.
Conservation	The conservation objectives for the SAC are to:
objectives of the	"Ensure that the integrity of the site is maintained or restored as
European site	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."
Condition of	The most recent condition assessments for the component Sites of
European site	Special Scientific Interest (SSSI) closest to the site state that the
	component SSSI relating to the main River corridor is in
	'unfavourable no change' condition. This is because hydrology,
	turbidity, siltation and phosphate targets are not being met, albeit
	mechanisms are in place to address these issues. The closest
	component SSSIs adjacent to the main river channel are in
	favourable condition.
Threats	A Site Improvement Plan (SIP) has been produced by Natural
	England in relation to River Wensum SAC (dated October 2014).
	This identifies prioritised issues (pressures or threats) affecting the
	designation, of which the following are potentially relevant to
	nearby developments:
	Siltation
	Invasive species
	Water pollution
	Water abstraction.
Screening of likely sig	
Habitat	The site is located 5.4 km from this designation at its nearest point,
fragmentation and	such that no functional habitat will be lost as a result of the
loss	proposals. Although the site supports a population of the Annex II
	species Desmoulin's Whorl Snail, this population is not considered
	to be functionally linked to the SAC given the distance between the
	site and the SAC and the intervening barriers. In any event, the area
	in which this species was recorded during the most recent survey
	will be retained under the proposals, while the outline planning
	consent requires a management plan to improve the condition of
	the fen habitat within the site (under Condition 8d).
Increased	The River Wensum SAC is scoped out of further assessment
recreational pressure	regarding recreational pressure in the Local Plan HRA, because the
	aquatic interest of the SAC is not affected by bankside recreation
	and public access to the river is in any case very limited, while
	boating is also very limited within the SAC.
Increased pressure	The Local Plan HRA sets out that there will be no impact on
on water resources	European sites from water abstraction arising from the Local Plan,
(i.e. abstraction)	because no increase in abstraction and no new abstraction is
	proposed according to Anglian Water's Water Resource
	Management Plan 2019 (which remains the most recent version).
	Instead, Anglian Water will manage demand by supplying less
	water per customer and by transferring water from other areas.
	Furthermore, Policy 2 of the emerging Greater Norwich Local Plan
	requires a high standard of water efficiency for new housing
	developments.
Water quality	The site lies outside of Natural England's nutrient neutrality
pollution impacts	catchment for River Wensum SAC (2021), and indeed lies well
(incl. nutrient	downstream of the SAC. As such, the proposed development is not
sensitivity)	considered to result in any likely significant effects relating to water
	quality at the River Wensum SAC.
Air quality pollution	The SAC is well separated from major roads in the vicinity of the
impacts	site, such that any local increase in traffic would not result in



	significant air quality impacts at the SAC.
Conclusion – could the	e proposed development result in a likely significant effect?
Alone	
No likely significant e	ffects are identified as a result of habitat fragmentation and loss.

No likely significant effects are identified as a result of habitat fragmentation and loss, recreational pressure, water abstraction, water quality, and air quality.

In combination with other plans or projects

No likely significant effects are identified as a result of any of the above pathways in combination with other plans and proposals.

4.4. The Broads SAC

European site interest featuresThe Broads SAC is designated on the basis of the following Annex habitats: Oligo-mesotrophic waters, with particular Charophyte interest;Eutrophic lakes, which support relict vegetation of Fenland flora;Transition mires;Calcareous fens;Alkaline fens;Alluvial forests including large blocks of Alder woodland. In addition, the SAC is designated for its populations of the following Annex II species: Desmoulin's Whorl Snail Vertigo moulinsiana;Ramshorn Snail Anisus vorticulus;Fen Orchid Liparis loeselii.	-	
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 Calcareous fens; Alkaline fens; Alluvial forests including large blocks of Alder woodland. In addition, the SAC is designated for its populations of the following Annex II species: Desmoulin's Whorl Snail Vertigo moulinsiana; Ramshorn Snail Anisus vorticulus; 		flora;
 Alkaline fens; Alluvial forests including large blocks of Alder woodland. In addition, the SAC is designated for its populations of the following Annex II species: Desmoulin's Whorl Snail Vertigo moulinsiana; Ramshorn Snail Anisus vorticulus; 		Transition mires;
 Alluvial forests including large blocks of Alder woodland. In addition, the SAC is designated for its populations of the following Annex II species: Desmoulin's Whorl Snail Vertigo moulinsiana; Ramshorn Snail Anisus vorticulus; 		Calcareous fens;
 In addition, the SAC is designated for its populations of the following Annex II species: Desmoulin's Whorl Snail Vertigo moulinsiana; Ramshorn Snail Anisus vorticulus; 		Alkaline fens;
 following Annex II species: Desmoulin's Whorl Snail Vertigo moulinsiana; Ramshorn Snail Anisus vorticulus; 		Alluvial forests including large blocks of Alder woodland.
 Desmoulin's Whorl Snail Vertigo moulinsiana; Ramshorn Snail Anisus vorticulus; 		In addition, the SAC is designated for its populations of the
Ramshorn Snail Anisus vorticulus;		following Annex II species:
		Desmoulin's Whorl Snail Vertigo moulinsiana;
Fen Orchid <i>Liparis loeselii.</i>		Ramshorn Snail Anisus vorticulus;
		Fen Orchid Liparis loeselii.
The presence of Otter Lutra lutra is also a qualifying feature, bu		The presence of Otter Lutra lutra is also a qualifying feature, but
not a primary reason for site selection.		
Conservation The conservation objectives for the SAC are to:		
	-	"Ensure that the integrity of the site is maintained or restored as
	European site	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 habitat. and habitats of qualifying species		• The extent and distribution of qualifying natural habitats and habitats of qualifying species
The structure and function (including typical species) of		• The structure and function (including typical species) of
qualifying natural habitats		qualifying natural habitats
The structure and function of the habitats of qualifying		• The structure and function of the habitats of qualifying
species;		species;
The supporting processes on which qualifying natura		The supporting processes on which qualifying natural
habitats and the habitats of qualifying species rely		habitats and the habitats of qualifying species rely
The populations of qualifying species, and,		• The populations of qualifying species, and,
The distribution of qualifying species within the site."		
Condition of The most recent condition assessments for the component Sites o		• The distribution of qualifying species within the site."
European site Special Scientific Interest (SSSI) closest to the site state that the	Condition of	• The distribution of qualifying species within the site." The most recent condition assessments for the component Sites of
for the unfavourable condition of the closest component SSSI to the		The most recent condition assessments for the component Sites of Special Scientific Interest (SSSI) closest to the site state that the SSSIs are largely in 'unfavourable no change' condition. The reasons



	site are focussed on poor water quality because of high nutrient
	inputs, which reduces botanical species diversity of fen vegetation.
Threats	A Site Improvement Plan (SIP) has been produced by Natural
	England in relation to both The Broads SAC and Broadland SPA
	(dated July 2018). This identifies prioritised issues (pressures or
	threats) affecting the designation, of which the following are
	potentially relevant to nearby developments:
	Water pollution
	Invasive species
	Siltation
	Inappropriate water levels
	Hydrological changes
	Water abstraction
	Public access
	Air pollution.
Screening of likely sig	
Habitat	The site is located 5.5 km from this designation at its nearest point,
fragmentation and	such that no functional habitat will be lost as a result of the
loss	proposals. Although the site supports a population of the Annex II
	species Desmoulin's Whorl Snail, this population is not considered
	to be functionally linked to the SAC given the distance between the
	site and the SAC and the intervening barriers. In any event, the area
	in which this species was recorded during the most recent survey
	will be retained under the proposals, while the outline planning
	consent requires a management plan to improve the condition of
	the fen habitat within the site.
Increased	The Local Plan HRA states that public usage of The Broads SAC is
recreational pressure	almost entirely restricted to well managed nature reserves, and the
	site is well removed from the potentially sensitive locations
	identified in the HRA, which are restricted to the east coast. The
	Local Plan HRA states that few residents travel further than 5 km to
	visit the SAC. The closest part of the SAC to the site is managed by
	RSPB (Surlingham Church Marsh), and has only a small car park
	associated with the village church which accommodates less than
	15 vehicles, such that the potential for increased recreational
	pressure is limited.
	In terms of boat traffic, the Local Plan HRA states that the number
	of boating licences issued by the Broads Authority is declining.
Increased pressure	The Local Plan HRA sets out that there will be no impact on
on water resources	European sites from water abstraction arising from the Local Plan,
(i.e. abstraction)	because no increase in abstraction and no new abstraction is
	proposed according to Anglian Water's Water Resource
	Management Plan 2019 (which remains the most recent version).
	Instead, Anglian Water will manage demand by supplying less
	water per customer and by transferring water from other areas.
	Furthermore, Policy 2 of the emerging Greater Norwich Local Plan
	requires a high standard of water efficiency for new housing
	developments.
AA7.1	
Water quality pollution impacts	The site lies within the nutrient neutrality catchment for this SAC according to Natural England. Component SSSIs of the SAC are



(incl. nutrient sensitivity)	currently in poor condition because of water pollution, including the component SSSI unit closest to the site (Yare Broads and Marshes SSSI).
	Following Annex E of Natural England's letter to planning authorities regarding nutrient neutrality (dated 16 March 2022), the proposals would create a source of water pollution, and there is hydrological connectivity to the SAC via the Rivers Yare and Wensum. In the absence of mitigation, the proposals will result in an increase in nitrogen and phosphorous from surface water and wastewater into these watercourses. The Nutrient Budget Calculation Record prepared by Stance for the proposed development set out a budget of 51.88 kgTP/yr and 1515.75 kgTN/yr, including a precautionary buffer of 20%. Part of the SAC is in unfavourable condition due to water nutrient levels (as set out above). Therefore, following the guidance in Annex E of the Natural England letter, a likely significant effect of the proposals alone cannot be ruled out.
Air quality pollution impacts	The distance of the site to the SAC precludes any impacts from local road traffic. A section of the SAC lies adjacent to approximately c. 1.2 km of the A47, some 16.2 km east of the site. At this distance, the site is considered unlikely to result in an increase of traffic
	exceeding recognised thresholds (i.e. increase in daily traffic flows on 1,000 AADT), particularly given that major destinations served by this route are limited to the town of Great Yarmouth.
Conclusion – could the	e proposed development result in a likely significant effect?

Alone

Yes, a likely significant effect cannot be ruled out in relation to water quality (nutrient sensitivity) pollution impacts (in the absence of mitigation).

No likely significant effects are identified as a result of habitat fragmentation and loss, increased recreational pressure, water abstraction, or air quality.

In combination with other plans or projects

Yes. Whilst predicted increases in recreational pressure arising from the proposed development are minimal, the SAC is recognised to be potentially sensitive to increased recreational pressure resulting from regional growth (as set out in the Norfolk GIRAMS). As such, further assessment of potential for recreational disturbance is necessary and an Appropriate Assessment is required.

No in-combination effects are anticipated with regard to habitat fragmentation/loss, water abstraction, or air quality.

4.5. Broadland SPA and Ramsar Site

European site	Broadland SPA is designated on the basis of the following species:
interest features	Great Bittern Botaurus stellaris (breeding);
	Bewick's Swan Cygnus columbianus bewickii (non-breeding);
	 Whooper Swan Cygnus cygnus (non-breeding);



	Wigeon Anas penelope (non-breeding);
	Gadwall Anas strepera (non-breeding);
	 Shoveler Anas clypeata (non-breeding);
	 Marsh Harrier Circus aeruginosus (breeding);
	 Hen Harrier Circus cyaneus (non-breeding);
	Ruff <i>Philomachus pugnax</i> (non-breeding).
	Broadland Ramsar site is designated on the basis of the following
	criteria:
	 Criterion 2: supports a number of rare species and habitats, including calcareous fens, alkaline fens, alluvial forests, Desmoulin's Whorl Snail, Otter, and Fen Orchid; Criterion 6: supports species/populations at international level of importance including Bouviel's Swap Wigcon Cadwall, and
	of importance, including Bewick's Swan, Wigeon, Gadwall, and Shoveler.
Conservation	The conservation objectives for the SPA are to:
objectives of the	"Ensure that the integrity of the site is maintained or restored as
European site	appropriate, and ensure that the site contributes to achieving the
Laropean site	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."
Condition of	The most recent condition assessments for the component Sites of
European site	Special Scientific Interest (SSSI) closest to the site state that the
	SSSIs are largely in 'unfavourable no change' condition. The reasons
	for the unfavourable condition of the closest component SSSI to the
	site are focussed on the poor water quality because of high nutrient
	inputs, which reduces botanical species diversity of fen vegetation,
	which are not relevant to the SPA interest features but are relevant
-	to Criterion 2 of the Ramsar site.
Threats	A joint Site Improvement Plan (SIP) for Broadland SPA and The Broads SAC has been produced by Natural England (dated July 2018). This is summarised above in relation to The Broads SAC.
Screening of likely sign	
Habitat	The site is located 5.5 km from this designation at its nearest point,
fragmentation and	and no functional habitat will be lost as a result of the proposals.
loss	
	None of the qualifying species of the SPA were recorded during
1	breeding bird surveys at the site, while the habitats present are
	breeding bird surveys at the site, while the habitats present are unlikely to support significant numbers of qualifying bird species
	breeding bird surveys at the site, while the habitats present are unlikely to support significant numbers of qualifying bird species during winter. Therefore, no loss or fragmentation of functional
	breeding bird surveys at the site, while the habitats present are unlikely to support significant numbers of qualifying bird species during winter. Therefore, no loss or fragmentation of functional habitat is anticipated under the proposals.
Increased	breeding bird surveys at the site, while the habitats present are unlikely to support significant numbers of qualifying bird species during winter. Therefore, no loss or fragmentation of functional habitat is anticipated under the proposals. The assessment above in relation to The Broads SAC is equally
Increased recreational pressure	breeding bird surveys at the site, while the habitats present are unlikely to support significant numbers of qualifying bird species during winter. Therefore, no loss or fragmentation of functional habitat is anticipated under the proposals. The assessment above in relation to The Broads SAC is equally applicable to the Broadland SPA and Ramsar, given that they follow
	breeding bird surveys at the site, while the habitats present are unlikely to support significant numbers of qualifying bird species during winter. Therefore, no loss or fragmentation of functional habitat is anticipated under the proposals. The assessment above in relation to The Broads SAC is equally applicable to the Broadland SPA and Ramsar, given that they follow the same boundary in the proximity of the site.
	breeding bird surveys at the site, while the habitats present are unlikely to support significant numbers of qualifying bird species during winter. Therefore, no loss or fragmentation of functional habitat is anticipated under the proposals. The assessment above in relation to The Broads SAC is equally applicable to the Broadland SPA and Ramsar, given that they follow

(i.e. abstraction)	the same boundary in the proximity of the site.
Water quality	Water quality pollution impacts in relation to increased nutrients
pollution impacts	are not relevant to the interest features of the SPA, but could
(incl. nutrient	impact habitats of interest within the Ramsar site (Criterion 2). The
sensitivity)	boundary and interest features of the Ramsar are similar to The
	Broads SAC. As such, the water quality pollution impacts set out
	above for The Broads SAC are applicable to Broadland Ramsar.
Air quality pollution	Given that the boundary of Broadland SPA and Ramsar overlaps
impacts	with The Broads SAC in proximity to the site, the above assessment
	for The Broads SAC is equally applicable to Broadland SPA and
	Ramsar.

Conclusion – could the proposed development result in a likely significant effect? Alone

Yes, a likely significant effect cannot be ruled out in relation to water quality pollution impacts (incl. nutrient sensitivity) on Broadland Ramsar site (in the absence of mitigation).

No likely significant effects are identified as a result of habitat fragmentation and loss, increased recreational pressure, water abstraction, or air quality.

No likely significant effects are identified for any of the above pathways in relation to Broadland SPA.

In combination with other plans or projects

Yes. As for The Broads SAC, whilst predicted increases in recreational pressure arising from the proposed development are minimal, Broadland SPA is recognised to be potentially sensitive to increased recreational pressure resulting from regional growth (as set out in the Norfolk GIRAMS). As such, further assessment of potential for recreational disturbance is necessary and an Appropriate Assessment is required.

No in-combination effects are anticipated with regard to habitat fragmentation/loss, water abstraction, or air quality.

4.6. Norfolk Valley Fens SAC

European site interest features	Norfolk Valley Fens SAC is designated on the basis of the Annex I habitat 'alkaline fens', and its populations of the Annex II species Narrow-mouthed Whorl Snail <i>Vertigo angustior</i> and Desmoulin's Whorl Snail.
	 In addition, the following Annex I habitats are present as qualifying features, but are not a primary reason for site selection: Northern Atlantic wet heaths with <i>Erica tetralix</i>; Dry heaths; Semi-natural dry grasslands and scrubland facies on calcareous substrates; Molinia meadows; Calcareous fens; Alluvial forests.
Conservation	The conservation objectives for the SAC are to:



	T
objectives of the	"Ensure that the integrity of the site is maintained or restored as
European site	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."
Condition of	The most recent condition assessments for the component Sites of
European site	Special Scientific Interest (SSSI) closest to the site are variously
Lutopean site	described as 'unfavourable no change', 'unfavourable recovering',
	and 'favourable'. The reasons for the unfavourable conditions
Threats	include water abstraction and inappropriate scrub control.
Inreats	A Site Improvement Plan (SIP) has been produced by Natural
	England in relation to The Broads SAC (dated October 2014). This
	identifies prioritised issues (pressures or threats) affecting the
	designation, of which the following are potentially relevant to
	nearby developments:
	Inappropriate water levels
	Hydrological changes
	Water pollution
	Water abstraction
	Invasive species
	Air pollution.
Screening of likely sig	nificant effects
Habitat	The site is located 11.3km from this designation at its nearest point,
fragmentation and	and no functional habitat will be lost as a result of the proposals. As
loss	such it is considered that no habitat loss or fragmentation will be
	caused by the proposals.
Increased	The SAC is located well beyond the median distances travelled by
recreational pressure	car to the sites, which is 3 to 6 km, as reported in the Local Plan
	HRA. As such, no significant increase in visitor numbers arising from
	the proposed development is anticipated.
Increased pressure	The Local Plan HRA sets out that there will be no impact on
on water resources	European sites from water abstraction arising from the Local Plan,
(i.e. abstraction)	because no increase in abstraction and no new abstraction is
,	proposed according to Anglian Water's Water Resource
	Management Plan 2019 (which remains the most recent version).
	Instead, Anglian Water will manage demand by supplying less
	water per customer and by transferring water from other areas.
	Furthermore, Policy 2 of the emerging Greater Norwich Local Plan
	requires a high standard of water efficiency for new housing
	developments.
Water quality	Norfolk Valley Fens SAC lies over 10km to the west of the site and
vvalci yudilly	INOTION VALIES TELES SAC LES OVER TOKILLO LLE WEST OF THE SILE ALLO
pollution impacts	the site has no hydrological connection to this SAC.



(incl. nutrient	
sensitivity)	
Air quality pollution	The component SSSIs closest to the site are well separated from
impacts	major roads, such that any local increase in traffic would not result
	in significant air quality impacts at the SAC.

Conclusion – could the proposed development result in a likely significant effect? Alone

No likely significant effects are identified as a result of habitat fragmentation and loss, recreational pressure, water abstraction, water quality, and air quality.

In combination with other plans or projects

Yes. Whilst predicted increases in recreational pressure arising from the proposed development are minimal, the designation is recognised to be potentially sensitive to increased recreational pressure resulting from regional growth (as set out in the Norfolk GIRAMS). As such, further assessment of potential for recreational disturbance is necessary and an Appropriate Assessment is required.

No in-combination effects are anticipated with regard to habitat fragmentation/loss, water abstraction, or air quality.

4.7. Breydon Water SPA and Ramsar Site

European aite	Droudon Water CDA is designated on the basis of the following
European site	Breydon Water SPA is designated on the basis of the following
interest features	species:
	Bewick's Swan Cygnus columbianus bewickii (non-breeding);
	 Avocet Recurvirostra avosetta (non-breeding);
	Golden Plover <i>Pluvialis apricaria</i> (non-breeding);
	• Lapwing Vanellus vanellus (non-breeding);
	 Ruff <i>Philomachus pugnax</i> (non-breeding);
	 Common Tern Sterna hirundo (breeding);
	Waterbird assemblage.
	Describeral Democry site analities on the basis of the following
	Broadland Ramsar site qualifies on the basis of the following
	criteria:
	Criterion 5: internationally important waterfowl assemblage;
	Criterion 6: internationally important numbers of Bewick's Swan
	and Lapwing over winter.
Conservation	The conservation objectives for the SPA are to:
objectives of the	"Ensure that the integrity of the site is maintained or restored as
European site	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."
Condition of	The most recent condition assessments for the component Sites of
European site	Special Scientific Interest (SSSI) closest to the site state that the
	SSSIs are largely in favourable condition.
Threats	A Site Improvement Plan (SIP) has been produced by Natural
	England in relation to The Broads SAC (dated March 2018). This
	identifies prioritised issues (pressures or threats) affecting the
	designation, of which the following are potentially relevant to nearby developments:
	Public access/disturbance;
Scrooning of likely sig	Hydrological changes.
Screening of likely sign Habitat	The site is located 18.7 km from this designation at its nearest
fragmentation and	point, and no functional habitat will be lost as a result of the
loss	proposals. As such it is considered that no habitat loss or
1033	fragmentation will be caused by the proposals.
Increased	The Local Plan HRA reports that this designation is not an attractive
recreational pressure	site for recreation because access requires either a boat trip or a
	substantial walk from the nearest parking point to enter. In
	addition, there a few circular walk opportunities. The median
	distance travelled by car is 12 km, well beyond the distance of the
	site to the SPA.
Increased pressure	The Local Plan HRA sets out that there will be no impact on
on water resources	European sites from water abstraction arising from the Local Plan,
(i.e. abstraction)	because no increase in abstraction and no new abstraction is
	proposed according to Anglian Water's Water Resource
	Management Plan 2019 (which remains the most recent version).
	Instead, Anglian Water will manage demand by supplying less
	water per customer and by transferring water from other areas.
	Furthermore, Policy 2 of the emerging Greater Norwich Local Plan
	requires a high standard of water efficiency for new housing
I'.	developments.
Water quality	Water quality pollution impacts in relation to nutrient increases are
pollution impacts	not relevant to the SPA and Ramsar interest features.
(incl. nutrient	
sensitivity)	The designation is well appeared from major reads and line a
Air quality pollution	The designation is well separated from major roads and lies a substantial distance from the site, such that no significant decrease
impacts	in air quality is expected.
Conclusion – could the	e proposed development result in a likely significant effect?
Alone	s proposed development result in a intery significant effect:
No likely significant e	effects are identified as a result of habitat fragmentation and loss,
	in the second of a result of habitat hagine itation and 1000,

No likely significant effects are identified as a result of habitat fragmentation and loss, recreational pressure, abstraction, water quality, and air quality.

In combination with other plans or projects

Yes. Whilst predicted increases in recreational pressure arising from the proposed development are minimal, the designations are recognised to be potentially sensitive to increased recreational pressure resulting from regional growth (as set out in the Norfolk GIRAMS). As such, further assessment of potential for recreational disturbance is necessary and an Appropriate Assessment is required.



No in-combination effects are anticipated with regard to habitat fragmentation/loss, water abstraction, or air quality.

4.8. Other European Designations: In-combination Only Assessment

Additional European designations that could be affected by the proposals in combination with other proposals	 Based on a review of the Norfolk Green Infrastructure and Recreational impact Avoidance and Mitigation Strategy (GIRAMS), the site lies within the zone of influence of a number of coastal European designations which are to be considered in terms of potential effects in combination with other proposals: Winterton-Horsey Dunes SAC (c. 26.7 km east of the site); Great Yarmouth and North Denes SPA (c. 27.5 km east of the site); North Norfolk Coast SAC and SPA (c. 39.2 km north of the site); The Wash and North Norfolk Coast SAC (c. 39.4 km north of the site).
European site interest features	The above designations support sensitive coastal habitats such as sand dunes and the Annex II species Harbour Seal <i>Phoca vitulina</i> . The SPAs are designated for seven breeding bird species and four non-breeding species, in addition to the overall waterbird assemblage.
Conservation objectives of the European sites	 The conservation objectives for the SACs are to: "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 within the site." The conservation objectives for the SPAs are to: "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;
	qualifying features rely;The population of each of the qualifying features; and



	• The distribution of the qualifying features within the site."
Screening of impact	Recreational disturbance: the site lies within the zone of influence
pathways	for recreational pressure in relation to the above designations, according to the Norfolk GIRAMS. This reflects anticipated strategic growth across the region and the substantial distances travelled by visitors to these coastal designations, combined with the sensitivity of the interest features (habitats and species). However, the designations are considered to be sufficiently removed from the site that an effect from the development alone is not considered likely, given that any visits to these designations would be very
	occasional rather than any regular access.

Conclusion – could the proposed development result in a likely significant effect? In combination with other plans or projects

Yes. Whilst predicted increases in recreational pressure arising from the proposed development itself are considered to be negligible, the designations are recognised to be potentially sensitive to increased recreational pressure resulting from regional growth (as set out in the Norfolk GIRAMS). As such, further assessment of potential for recreational disturbance is necessary and an Appropriate Assessment is required.

4.9. Appropriate Assessment

- 4.9.1. In light of the above conclusions, the following designations are taken forward for further consideration at Stage 2 via Appropriate Assessment.
 - The Broads SAC and Broadland Ramsar site;
 - In-combination effects on The Broads SAC, Broadland SPA and Ramsar, Norfolk Valley Fens SAC, Breydon Water SPA and Ramsar, Winterton-Horsey Dunes SAC, Great Yarmouth and North Denes SPA, North Norfolk Coast SAC and SPA, The Wash and North Norfolk Coast SAC.



5. Stage 2: Appropriate Assessment

5.1.1. As set out in the sections above, the potential has been identified for:

- Water quality (including nutrient sensitivity) effects on The Broads SAC and Broadland Ramsar site;
- In-combination recreational effects on The Broads SAC, Broadland SPA and Ramsar, Norfolk Valley Fens SAC, Breydon Water SPA and Ramsar, Winterton-Horsey Dunes SAC, Great Yarmouth and North Denes SPA, North Norfolk Coast SAC and SPA, The Wash and North Norfolk Coast SAC.
- 5.1.2. This section assesses the potential effects of, and mitigation requirement for, the above effects and designations.

5.2. Water Quality (Including Nutrient Sensitivity) Effects

5.2.1. This section assesses the potential effects of, and mitigation requirement for, water quality (including nutrient sensitivity) effects on The Broads SAC and Broadland Ramsar site.

Do the proposals, in-combination with other relevant plans and projects have the potential to affect the integrity of the European designation, given the sites' conservation objectives?

Water quality

The component SSSIs of The Broads SAC in closest proximity to the site are in unfavourable condition, with the latest condition assessments citing poor water quality as a reason. For example, the condition assessment for the component SSSI unit closest to the site (Yare Broads and Marshes SSSI, Unit 16 'RSPB') undertaken in August 2018 states:

"Although much of the RSPB managed land is favourable the impact of poor quality river water on the fen is holding back the site from achieving all it could, and negatively impacting riverside fen communities as well as connected ditches and waterbodies. Areas of fen in a c.20m wide strip adjoining the river and connected ditches clearly show the impact of nutrient rich water flowing onto the site: these areas are species poor fen with abundant Urtica dioica, Typha latifolia and Calystegia sepium."

The proposals could increase levels of water-borne nitrogen and phosphorous at the SAC in the absence of mitigation, which could result in the deterioration of the designated Annex I habitats, and/or inhibit restoration of habitats to favourable condition, through eutrophication. As such, an adverse effect on the integrity of the designations cannot be ruled out. Therefore, mitigation measures are required.

Proposed avoidance and/or mitigation measures (following the flow-chart in the guidance for Appropriate Assessment in Annex E of Natural England's letter to planning authorities regarding nutrient neutrality (dated 16 March 2022)

Mitigation to ensure no	Mitigation to avoid hydrological connectivity between the
hydrological connectivity	site and the designations is not feasible in this case, given
	that the Rivers Yare and Wensum lie adjacent to the site
	and flow directly into the designations.



Mitigation that would avoid adverse effects	Mitigation is being designed to provide certainty that the proposals would avoid adverse effects by achieving nutrient neutrality in line with Natural England's guidelines.
	Mitigation will be provided via the purchase of off-site nutrient neutrality credits which are being brought forward by Norfolk Environmental Credits Ltd ²⁶ as a joint venture of Anglian Water, North Norfolk District Council, Breckland District Council, Norwich City Council and South Norfolk and Broadland District Councils. The applicant has registered for this scheme.
	The River Wensum SAC & Broads SAC Nutrient Budget Calculator (v1.1) has been used to calculate the credits required to be offset (51.88 kgTP/yr and 1515.75 kgTN/yr, including a 20% precautionary buffer) and these will be purchased prior to occupation of the scheme.

Conclusion – with the implementation of mitigation, will the proposals in-combination with other plans or projects avoid an adverse effect on integrity of a European designation?

The implementation of the above mitigation measures are capable of achieving nutrient neutrality at the site throughout construction and occupation in perpetuity, provided that suitably worded planning conditions and/or legal agreements are imposed requiring contributions to an appropriate strategic credit scheme.

Following the implementation of mitigation, it considered that an adverse effect as a result of water quality would be avoided, and the proposed development, alone and incombination with other plans and projects, would not result in an adverse effect on the integrity of The Broads SAC and Broadland Ramsar site, in view of the designation's conservation objectives.

Therefore, it is considered that no further assessment is required and proceeding to Stage 3 is not necessary.

5.3. Recreational Pressure In-combination Effects

5.3.1. This section assesses the potential effects of, and mitigation requirement for, recreational pressure arising from the proposed development in combination with other plans and projects, on The Broads SAC, Broadland SPA and Ramsar, Norfolk Valley Fens SAC, Breydon Water SPA and Ramsar, Winterton-Horsey Dunes SAC, Great Yarmouth and North Denes SPA, North Norfolk Coast SAC and SPA, The Wash and North Norfolk Coast SAC.

²⁶ https://www.norfolkenvironmentalcredits.co.uk/



Do the proposals, in-combination with other relevant plans and projects have the potential to affect the integrity of the European designation, given the sites' conservation objectives?

Recreational pressure (in-combination with other proposals)

A series of visitor surveys were undertaken at European protected sites across Norfolk, including Broadland SPA and The Broads SAC, in 2015 and 2016 (Footprint Ecology 2016). The subsequent analysis predicted visitor increases of up to 28% at the designations arising from future growth in Norwich and South Norfolk, respectively. Although recreational pressure has not been directly linked to adverse effects on the interest features of the designations, recreational pressure can result in disturbance to breeding birds (e.g. Little Terns) and non-breeding birds (e.g. wintering wildfowl and waders), as well as causing habitat damage to the sensitive habitats. This can occur through damage to soils and vegetation by trampling, disturbance to sensitive species e.g. ground-nesting birds and wintering waterfowl by off-lead dogs, eutrophication from dog fouling, littering, and preventing appropriate management such as grazing. There is clear evidence of recreational pressure resulting in a significant adverse impact on bird species at other SPAs (such as Thames Basin Heaths SPA and Dorset Heathlands SPA).

On this basis, given that information is not available to demonstrate that increased visitor pressure from new housing would not have an adverse effect on the interest features of the designations, a precautionary approach has been advocated, with contributions towards strategic mitigation required for all new residential developments in current site allocations within Norwich City and South Norfolk Councils. Strategic mitigation in Norfolk is delivered via the Norfolk Green Infrastructure and Recreational impact Avoidance and Mitigation Strategy (GIRAMS), dated March 2021. The GIRAMS was developed by all Norfolk LPAs, in addition to Natural England and Forestry Commission. The strategy includes measures to deliver appropriate green infrastructure within new developments or a contribution towards offsite green infrastructure, in addition to a contribution to an avoidance and mitigation strategy at the designations. The requirement for relevant new developments to contribute to the GIRAMS is set out in Policy 3 of the Greater Norwich Local Plan.

Proposed avoidance and/or m	itigation measures
Recreational impact	The Norfolk GIRAMS includes a per-dwelling tariff to fund a
Avoidance and Mitigation	combination of hard and soft mitigation measures at the
Strategy (RAMS)	designated sites. This will increase their resilience to greater visitor numbers. The tariff is calculated as a proportionate sum of the full costs of the Norfolk-wide RAMS mitigation package as apportioned to the predicted growth outlined in the Local Plan. The concept of RAMS has been endorsed by Natural England and has been implemented for other European designations across England which are sensitive to recreational pressure.
	The Norfolk RAMS package funds items such as governance, site rangers, signage and interpretation boards, monitoring of SPA birds, visitor monitoring, communication and training such as a website, talks and promotional materials, a dog project, water sports zonation, development of codes of conduct, and fencing of sensitive areas.



	On this basis, mitigation is proposed by way of a financial contribution through payment of the relevant RAMS tariff ²⁷ in accordance with Policy 3 of the Greater Norwich Local Plan.
Green Infrastructure provision	As the RAMS tariff exists to specifically mitigate the in- combination effects of new developments across Norfolk on protected sites, an additional Green Infrastructure contribution is also required under the GIRAMS to deliver mitigation at a more local level. This will secure adequate provision of Suitable Alternative Natural Green Space (SANGs). A SANG is a semi-natural area of greenspace located away from the designation, with the aim of providing an alternative area for recreation, to divert residents away from the sensitive designations. The use of SANGs as mitigation for recreational pressure is well established, having formed a key element of the mitigation strategy adopted at Thames Basin Heaths SPA and Dorset Heathlands SPA, and developed on the basis of various studies which provide evidence supporting the principle of alternative open space provision.
	In addition, Policy 3 of the Greater Norwich Local Plan requires all residential development to provide green infrastructure equating to a minimum of 2 hectares per 1,000 population to reflect Natural England's Accessible Natural Greenspace Standard. The proposed development exceeds this by providing a total of 3.75 ha of informal green space within the site, which is equivalent to 2.5 ha per 1000 population.

Conclusion – with the implementation of mitigation, will the proposals in-combination with other plans or projects avoid an adverse effect on integrity of a European designation? Yes.

Following the implementation of mitigation including financial contributions to RAMS and provision of onsite green infrastructure, it considered that an adverse effect as a result of recreational disturbance would be avoided, and the proposed development, alone and incombination with other plans and projects, would not result in an adverse effect on integrity of the above designations in view of the sites' conservation objectives.

Therefore, it is considered that no further assessment is required and proceeding to Stage 3 is not necessary.

²⁷

https://www.norwich.gov.uk/info/20017/planning_applications/3864/recreational_access_mitigation_strategy_r ams_tariff



6. Conclusions

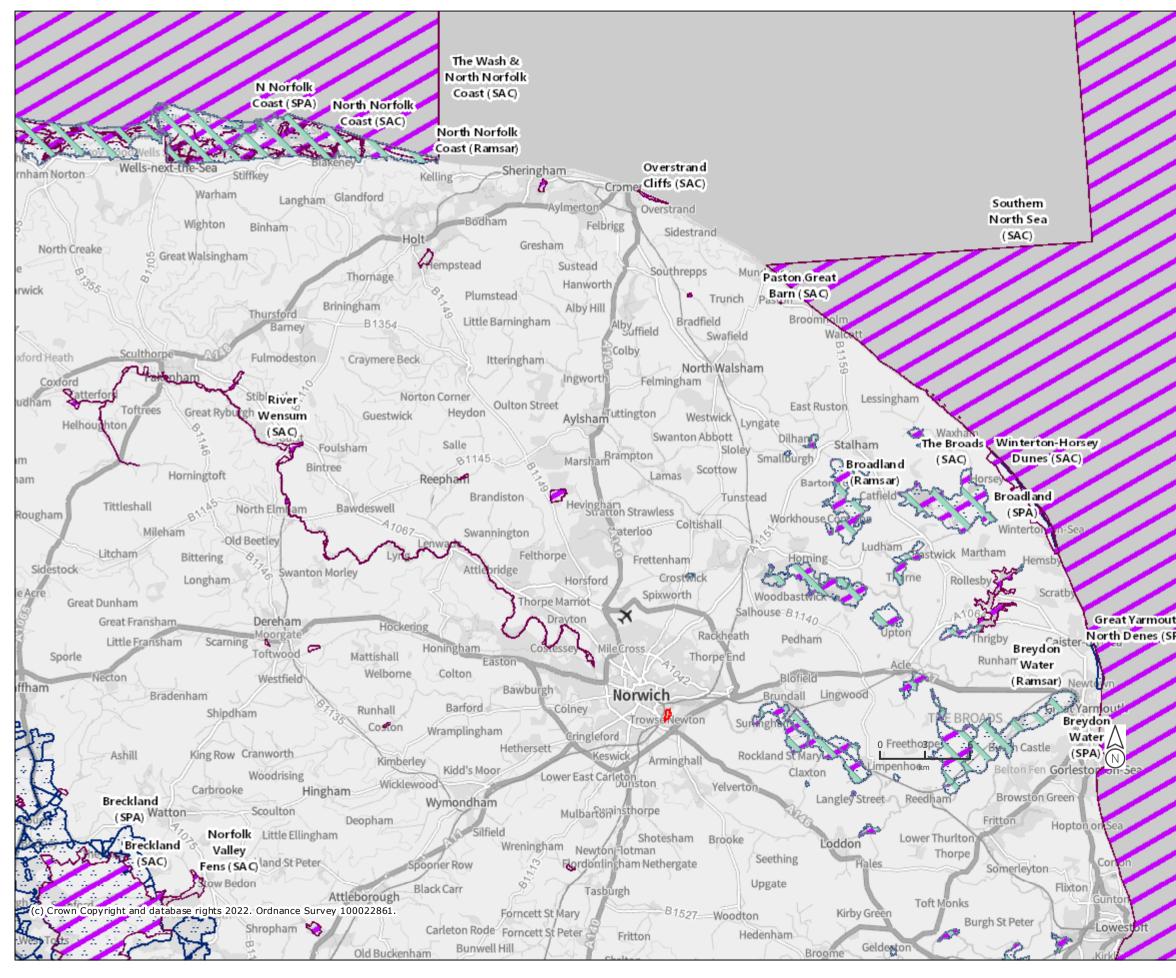
- 6.1.1. This document provides information to inform a Habitats Regulations Assessment of the proposed development, given the presence of a number of European designations within the site surrounds.
- 6.1.2. A screening exercise has been undertaken to identify whether the proposed development could result in a likely significant effect on European designations, both alone and in-combination with other plans and projects (Stage 1). The screening exercise has concluded that in the absence of mitigation, the potential for a likely significant effect arising from the development alone cannot be ruled out in relation to water quality at The Broads SAC and Broadland Ramsar site. In addition, the potential for recreational disturbance at a number of Norfolk SACs, SPAs, and Ramsar sites has been identified in combination with other plans and projects. Therefore an Appropriate Assessment is required.
- 6.1.3. The Appropriate Assessment (Stage 2) has concluded that, in view of the designations' conservation objectives, following the implementation of mitigation measures comprising contributions to a nutrient neutrality credit scheme, contributions to a Recreational impact Avoidance and Mitigation Strategy, and delivery of accessible Green Infrastructure, the proposed development would have no effect on the integrity of the surrounding European designations either alone or in-combination with other plans and projects.



Annex 6592/HRA1:

European Designations in Relation to the Site

European designations



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Legend

- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Special Areas of Conservation (England)
- Possible Special Areas of
 - Conservation (England)
- Special Protection Areas ÷ (England)
- Potential Special Protection Areas (England)

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European designations



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	Special Areas of Conservation
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m Grov	Possible Special Areas of Conservation (England)
ngton	Special Protection Areas (England)
1	- Potential Special Protection
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