

# WILD FRONTIER ECOLOGY

Proposed Conversion of Grain Store to Holiday Lets at  
Beach Farm, South Beach Road, Heacham, Norfolk



Supporting Evidence for Appropriate Assessment

Originally issued: February 2023

Update issued: May 2023

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This report conforms to the British Standard 42020:2013 Biodiversity - Code of practice for planning and development.

The data which we have prepared and provided are accurate, and have been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that any opinions expressed are our best and professional bona fide opinions.

Wild Frontier Ecology is ISO14001 accredited



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## 1. Non-Technical Summary

Wild Frontier Ecology Ltd. was commissioned by Mr Nigel Marsh to provide a Shadow Appropriate Assessment of a proposal for conversion of a former grain store building at Beach Farm, south of the village of Heacham in north-west Norfolk, into four new holiday lets. The report aims to provide supporting evidence to assist the competent authority (the Borough Council of King's Lynn and West Norfolk) in completing an Appropriate Assessment of the proposals.

Natural England has been consulted regarding the proposals, and requested that an Appropriate Assessment considers the potential for Adverse Effects on the Integrity of a number of nearby Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites (collectively referred to as Habitats sites). There are multiple Habitats sites nearby (including within <500 metres), and Natural England has concluded that the proposals do pose the risk of having a Likely Significant Effect on Habitats sites, hence triggering the need for Appropriate Assessment under the Habitats Regulations Assessment process. Natural England's consultation response points to particular concerns over recreational impacts and impacts from surface and foul water discharges to Habitats sites.

The proposals comprise interior renovation of the existing grain store barn into four self-contained holiday lets, each capable of accommodating four people (meaning the building would have a total maximum capacity of 16 people). New doors and windows would also be added.

This Shadow Appropriate Assessment has considered the potential for direct land-take, construction related impacts and direct in-use/operational effects. In the case of these types of impacts, no adverse effects on the integrity of Habitats sites are expected because of the baseline setting of the site, where comparable impacts (e.g. vehicular activity, human noise, artificial lighting etc.) already occur. Essentially, the addition of new sources of these impacts from the proposed development would be proportionately negligible increases in already existing impacts.

The risk of tourists/occupants of the proposed holiday lets leading to increased recreational pressures on nearby Habitat sites cannot be discounted when considered in combination with other plans or projects which would also contribute to increases in human population/presence in the wider region/county. Therefore, the proposals will need to make a financial contribution towards the Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy (GIRAMS). The Norfolk GIRAMS requires financial contributions from all development proposals which would result in an increase in human population (including tourist-related developments such as the proposal at Beach Farm) to fund mitigation of recreational impacts on Habitats sites. It is an accepted mitigation solution to address this issue, and has been adopted by the Borough Council of King's Lynn and West Norfolk. Therefore, assuming the relevant financial contribution is made towards the Norfolk GIRAMS, the proposed development will be expected to have adequately mitigated the risks of adverse effects on the integrity of Habitats sites.

The developer is proposing (under a separate application) to install a package treatment plant at the site which would discharge treated water into the ground. The discharged water would contain only trace amounts of nutrients; a permit from the Environment Agency is currently being applied for to enable this sewage solution. The Habitats sites within Norfolk for which development proposals must demonstrate maintenance of 'nutrient neutrality' are the River Wensum SAC and The Broads SAC. However, as the proposal at Beach Farm is well separated from the catchments of these designated sites,

there is considered to be no risk of an adverse effect on the integrity of the relevant Habitats site. Furthermore, the proposed development involves conversion of an existing building, so no discernible changes to surface water flows are expected.

In summary, this Shadow Appropriate Assessment has reached a conclusion of no adverse effects on the integrity of Habitats sites, either alone or in-combination with other plans or projects, assuming the advised mitigation measure (payment of the Norfolk GIRAMS contribution) is adopted.

## 2. Introduction

### 2.1. Project Background

Wild Frontier Ecology Ltd. was commissioned by Mr Nigel Marsh of Norfolk Coast B&B Cottages and Camping to provide a Shadow Appropriate Assessment of a proposed holiday let development at Beach Farm, 70 South Beach Road, located to the south of the village of Heacham in north-west Norfolk. The proposal is to convert an existing agricultural barn previously used as a grain store into four self-contained holiday lets, each with two bedrooms and suitable for a group of four people; in total the building could therefore house up to 16 people at maximum capacity. The building would be available for use as holiday lets throughout the year.

The location of the site (which is centred on National Grid Reference TF 6653 3685) is shown in Figures 1 and 2, below. The proposed conversion would comprise interior renovation and exterior additions of new doors and windows only, so the footprint of the building would remain unchanged.

### 2.2. Planning Background

A planning application for Prior Approval for Change of Use has been submitted to the local planning authority (the Borough Council of King's Lynn and West Norfolk) under reference 22/01878/PACU3. The nature of the development was a Class Q Permitted Development Application. However, the application has been refused based in part on the following request from Natural England for a Habitats Regulations Assessment.

Natural England responded to the application on 14<sup>th</sup> December 2022, under their reference 414190. In their response, Natural England advised that:

*“... this development could have a likely significant effect on:*

- *The Wash and North Norfolk Coast Special Area of Conservation (SAC)*
- *The Wash Special Protection Area (SPA)*
- *The Wash Ramsar site*

*Additionally to the European sites mentioned above, the application could also have potential significant effects on the European sites designated within the Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy (GIRAMS) report.*

*The application could also damage or destroy the interest features for which the underpinning Sites of Special Scientific Interest (SSSIs) of the above European sites have been notified.*

*Prior to development commencing, an application under Regulation 77 of the Conservation of Habitats and Species Regulations 2017 needs to be submitted to and approved by the LPA, in consultation with Natural England.*

*We require the following information to help determine whether the development is likely to have a significant effect on the above European sites:*

- *A full Habitats Regulations Assessment (HRA) to determine the potential impacts of the plan or project both alone and in combination with other plans or projects.*

*In particular, we recommend you obtain the following information to help you undertaken a Habitats Regulations Assessment:*

- *This development falls within the ‘Zone of Influence’ (Zol) for one more of the European designated sites scoped into the Norfolk GIRAMS. Natural England advise that a suitable contribution to the Norfolk GIRAMS should be sought from this development to ensure that the delivery of the GIRAMS remains viable.*
- *The impact of surface and foul water discharges on the above listed sites.”*

The location of the site relative to the designated sites referenced by Natural England is shown in Figure 3, below.

This Shadow Appropriate Assessment report will consider the potential for adverse effects on the integrity of the relevant designated sites as a result of the proposed development. This has been requested by the local planning authority (via Natural England) because Likely Significant Effects (LSE) cannot be ruled out at the screening stage on designated sites (referred to collectively as ‘Habitats’ sites) covered by the Norfolk GIRAMS. Specifically, the following Habitats sites are included within this report:

*Table 1: Habitats Sites Screened-in for Appropriate Assessment*

Designated Site Name	Designation	Distance and Direction from Proposed Development Site
The Wash and North Norfolk Coast	Special Area of Conservation	330 metres (m) west
The Wash	Special Protection Area	330m west
	Ramsar	330m west
Dersingham Bog	Ramsar	7.2 kilometres (km) south
Roydon Common and Dersingham Bog	Special Area of Conservation	7.2km south
North Norfolk Coast	Special Protection Area	7.5km north-east
	Ramsar	7.5km north-east
	Special Area of Conservation	7.7km north-east
Roydon Common	Ramsar	13.8km south
River Wensum	Special Area of Conservation	20.1km south-east
Norfolk Valley Fens (multiple sites)	Special Area of Conservation	21.1km south-east (there are multiple sites within this designation but this is the distance and direction to the closest of these sites)
Breckland	Special Area of Conservation	42.2km south-east
	Special Protection Area	28.9km south-east

Further information is provided below on these designated sites and their reasons for designation.

There are additional Habitats sites in Norfolk such as Broadland SPA/Ramsar, The Broads SAC, Overstrand Cliffs SAC, Paston Great Barn SAC and others, but all these sites are beyond 50km from the proposed development site and are therefore not specifically included within this assessment. The Norfolk GIRAMS applies to all Habitats sites in Norfolk but recreational impacts to sites >50km from the proposed building conversion at Heacham are considered to be extremely unlikely and do not justify detailed consideration.



Figure 1: Proposed development site plan (as provided by Nigel Marsh)

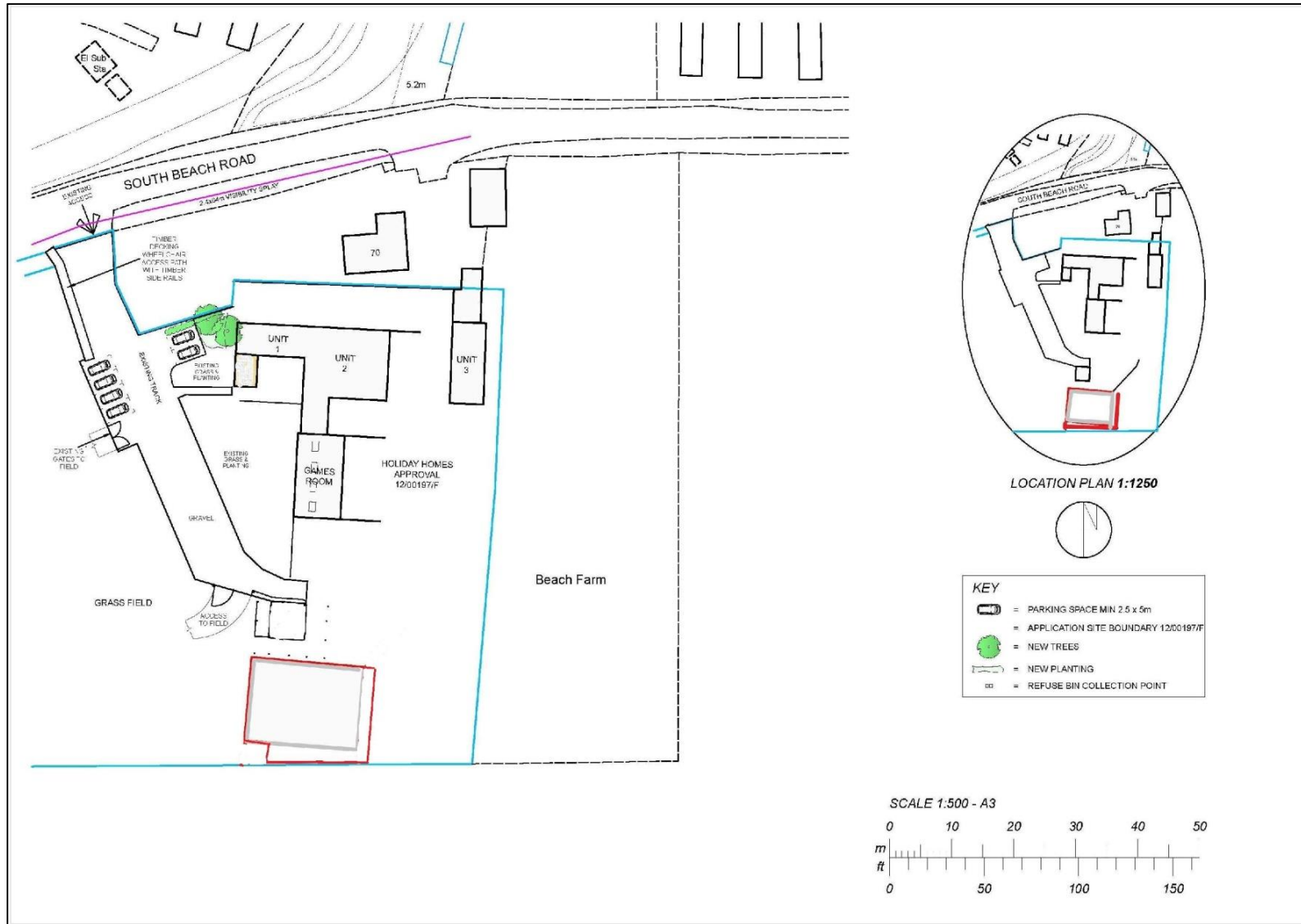
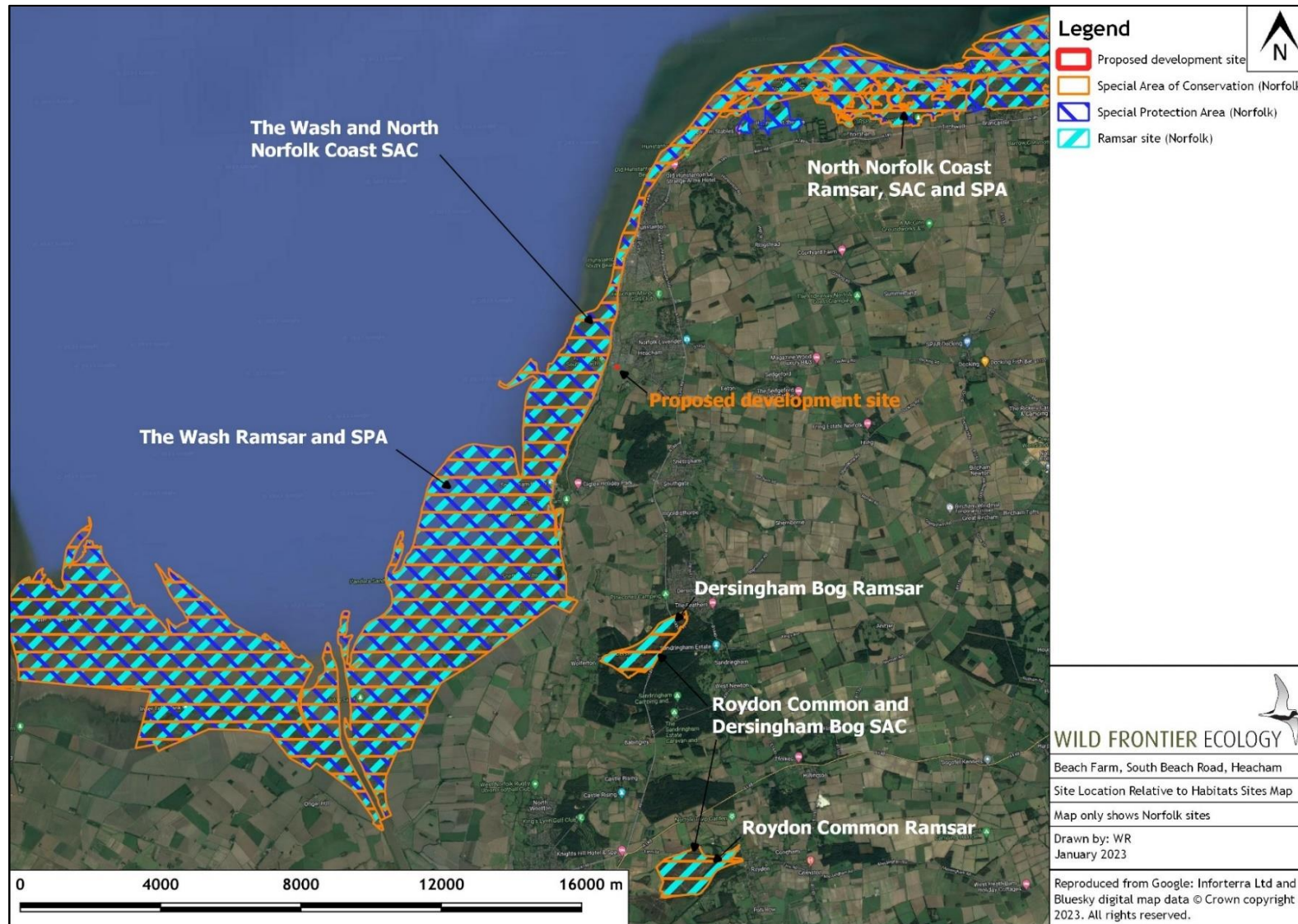


Figure 2: Site Location Map



Figure 3: Site Location Relative to Norfolk Habitats Sites (only showing sites within 20km)



### 2.3. The Habitats Regulations Assessment Process

The Habitats Regulations Assessment process, of which Appropriate Assessment is one stage, is outlined in Table 2, below:

*Table 2: Habitats Regulations Assessment Process*

Stage	Details	Relevance to Proposed Works at Beach Farm in relation to Habitats Sites
Stage 1: Screening	This stage should seek to identify whether a proposed plan or project is necessary for the management of the designated site, or likely to have a significant effect on such a site, either alone or in combination with other plans or projects. If it is necessary for the management of the designated site, or if no Likely Significant Effect is identified then the project can be 'screened out' and no further assessment is necessary.	The proposal is not necessary for the management of the designated sites. The likelihood of a significant effect on the designated sites as a result of the proposed development has been confirmed by Natural England and therefore the project must progress to Stage 2.
Stage 2: Appropriate Assessment	Identification and assessment of any adverse effects of the proposed plan or project on the integrity of a designated site's structure, function and conservation objectives, either alone or in combination with other plans or projects. Competent authorities can consent to plans or projects that will not adversely affect the integrity of a designated site. Where the integrity of the designated site is predicted to be adversely impacted, mitigation options need to be considered and the mitigated impacts then re-assessed. If adverse impacts on the designated site's integrity cannot be avoided despite mitigation measures, then consent for the project can only be awarded by following Stages 3 and 4.	The proposal requires Appropriate Assessment by the competent authority (the LPA) per the advice of Natural England, with this report representing a compilation of relevant information assisting the competent authority in completing the assessment.
Stage 3*: Assessment of alternative solutions	Alternative options for achieving the objectives of the proposed plan or project need to be considered. If there are any feasible alternative solutions, then the original plan cannot be consented to and the alternative solution will then need to start the appropriate assessment process from Stage 1.	Only necessary to consider if, after Appropriate Assessment, the proposal is predicted to have an adverse effect on the integrity of any of the designated sites.

<p>Stage 4*: Imperative Reasons of Overriding Public Interest and compensatory measures</p>	<p>Where mitigation cannot remove adverse impacts and alternative solutions are not feasible/available, the proposed plan or project can only be consented for Imperative Reasons of Overriding Public Interest (IROPI) and if compensatory measures are secured.</p>	<p>Only necessary to consider if, after Stage 3, there are no feasible alternative solutions.</p>
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\*Stages 3 and 4 are not relevant to this proposal at this stage of the assessment. Further detail on the Appropriate Assessment process is given in Annex 1.

### 3. Legislative and Policy Background

#### 3.1. International Site Designations

The European Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) as amended directs the designation of important wildlife sites through the European Community as Special Areas of Conservation (SACs) and gives statutory protection to habitats and species listed in the Directive as being threatened or of community interest. Sites identified as candidate SAC (cSAC) are provided with the same level of protection as SAC.

Annex I of 92/43/EEC as amended lists habitat types which are regarded as being of European importance. Included within these are a number of ‘priority habitat types’ which are habitats regarded as being in danger of disappearance and whose natural range falls broadly within the European Union. This European law had been transposed into UK legislation by The Conservation (Natural Habitats) &c Regulations 1994, now replaced by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

Habitats of European-wide importance for birds are listed under the EC Wild Birds Directive (79/409/EEC) as amended. Habitats designated under this Directive are notified as Special Protection Areas (SPAs) and are identified for holding populations > 1% of the reference population as defined in Appendix 4 of the SPA review of bird species listed in Annex 1 of the same Council Directive. Sites identified as potential SPA (pSPA) are provided with the same level of protection as SPA. This has also been transposed into UK legislation by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

SACs and SPAs post-Brexit are no longer part of the EU’s Natura 2000 ecological network. The 2019 Regulations have created a ‘National Site Network’ which includes existing SACs and SPAs and retains the same level of protection as when the UK was an EU member state.

Wetlands of International Importance are designated under the Ramsar Convention and do not form part of the National Site Network, though many Ramsar sites overlap SACs and SPAs and are protected in the same way.

Ramsar sites and sites within the National Site Network are collectively referred to as “Habitats Sites”.

#### 3.2. Local Policy

Relevant planning policies can provide useful background on the HRA process as it applies to the relevant designated site/s within this district of the UK (the Borough of King’s Lynn and West Norfolk). Planning policies which reference sources/mechanisms of potential adverse effects and suitable mitigation approaches are all of potential relevance.

The Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy Habitats Regulations Assessment Document written by Place Services<sup>1</sup>, outlines the nature of recreational impacts to Habitats sites throughout Norfolk. The report outlines existing and proposed mitigation approaches aimed at ensuring adverse effects

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<sup>1</sup> Mills, R., Hooton S. & Crane, J. (2021). *Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy: Habitats Regulations Assessment Document*. Place Services, Chelmsford.

on the integrity of designated sites as a result of recreation can be suitably mitigated. It states that:

*“The potential for recreation activities to disrupt the protection objective of Habitats Sites in and around Norfolk is related to the level of growth in each Local Plan ‘in combination’; specifically an increase in population resulting from identified new housing requirements across the County that will in turn ensure more people visit Habitats Sites for recreation. This residential growth, combined with an increase in tourism accommodation, will result in more people visiting and possibly harming Habitats Sites.”*

Section 3.3.1.1 of the document relates to the Borough of King’s Lynn and West Norfolk (BCKLWN), and states:

*“The Borough-wide Natura 2000 sites [i.e. Habitats sites] ‘Monitoring and Mitigation Strategy’ states that the requirement for mitigation applies to housing and tourist accommodation applications (including hotels, guest houses, lodges, static caravans and touring pitches) within the whole area. For tourist accommodation the contribution is calculated on a case by case basis by the council, depending on the type, location and seasonality of the accommodation.”*

The King’s Lynn and West Norfolk Local Plan Review Pre-Submission Stage 2021 document<sup>2</sup> includes Strategic Policy LP27, which states:

*“... the Borough Council will levy an interim Habitat Mitigation Payment of £50 per house to cover monitoring/small scale mitigation at the European [Habitats] sites. This Strategy and associated payments will be in place until superseded by the Norfolk wide Green Infrastructure (GI) and Recreational impact Avoidance and Mitigation Strategy (RAMS).*

It was not specified when that Strategy’s policy (LP27) would be superseded by the Norfolk-wide GIRAMS. However, regarding the financial contribution required to fund the necessary mitigation, Footprint Ecology’s Habitats Regulations Assessment of the King’s Lynn and West Norfolk Local Plan Review pre-submission<sup>3</sup> states that:

*“The cost of the RAMS is estimated at £7.9 million and this is intended to be spreads across all new planned residential development that provide a net increase in housing in Local Plan periods. The cost per dwelling is £205.02.”*

The King’s Lynn & West Norfolk Local Plan Review (2016 - 2036) Summary document<sup>4</sup>, of the minutes of meetings to discuss which policies which will be adopted by the council in the forthcoming Adopted Core Strategy, specifically references the Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy Habitats Regulations Assessment Document by Place Services. It states:

*“The recommended per dwelling tariff has been calculated based on the costed package of measures relevant to the impacts and the total number of houses/development still to come forward over the Local Plan(s) period. As such*

<sup>2</sup> Borough Council of King’s Lynn and West Norfolk. (2021). *Local Plan Review Pre-Submission Stage 2021*. Borough Council of King’s Lynn and West Norfolk, available at [www.west-norfolk.gov.uk](http://www.west-norfolk.gov.uk)

<sup>3</sup> Liley, D, Saunders, S. & Caals, Z. (2020). *Habitats Regulations Assessment of the King’s Lynn and West Norfolk Local Plan Review at pre-submission*. Unpublished report by Footprint Ecology.

<sup>4</sup> <https://democracy.west-norfolk.gov.uk/documents/g4856/Public%20reports%20pack%2015th-Jun-2021%2015.00%20Cabinet.pdf?T=10>

*the approach looks to mitigate the added recreational pressure in a way that ensures that those responsible pay for it... The costs are in the region of £7.9m for the mitigation package which is a planning contribution that must be **paid for each net new dwelling delivered across the districts and County, this amounts to £185.93**. In relation to different Use Class such as tourism accommodation specialist accommodation and student accommodation the tariff is split into bed space unit equivalents with the study recommending developer contributions on a 'per six bed space ratio' of the tariff identified for residential growth."*

The Norfolk GIRAMS was recommended for approval by the BCKLWN on 15<sup>th</sup> June 2021 and so has effectively superseded the £50 Habitat Mitigation Payment. It is therefore understood to be the policy of BCKLWN to require residential and tourist development to contribute £185.93 per dwelling (or equivalent calculated on a per-six-bed ratio for tourist accommodation) to fund the mitigation of the adverse effects on the integrity of Habitats site resulting from overall increases in recreational impacts.



## 4. Objectives

The main objective of this report is to assist the LPA in appropriately assessing whether the proposed development will have any adverse effects (either alone or in combination with other plans and projects) on the integrity of Habitats sites.

This report does not consider the potential impacts of the proposed works on other valued ecological receptors which are not related to the aforementioned designated sites, including legally protected species such as bats or badgers. Such receptors are not part of the qualifying features of the relevant designated sites and so are not included in this Shadow Appropriate Assessment.

## 5. Methods

### 5.1. Desk Study

The Multi Agency Geographic Information for the Countryside (MAGIC) website<sup>5</sup> was reviewed to establish the proximities of nearby designated sites to the proposed works areas. Information on the Habitats sites (and their associated SSSIs) was obtained from the websites of the Joint Nature Conservation Committee<sup>6</sup> and Natural England<sup>7</sup>.

Existing reports on the site, completed by Aurum Ecology<sup>8</sup> in 2012, Your Environment<sup>9</sup> in 2021 and Anthony-Johnson Consulting Engineer Ltd.<sup>10</sup> in 2022 have been reviewed for relevant ecological information on the proposed development site.

Natural England also raised concerns regarding water discharges from the proposed holiday units, and their potential impacts on Habitats sites. The developer has therefore been asked to provide details of the package treatment plant which is separately proposed to be installed, so that these can be reviewed and assessed for risks of leading to adverse effects on integrity.

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<sup>5</sup> [www.magic.gov.uk](http://www.magic.gov.uk)

<sup>6</sup> [jncc.defra.gov.uk](http://jncc.defra.gov.uk)

<sup>7</sup> [www.naturalengland.org.uk](http://www.naturalengland.org.uk)

<sup>8</sup> Goldsmith, J. (2012). *Beach Farm, Heacham: A Biodiversity and European Protected Species Report*. Aurum Ecology Limited, Norfolk.

<sup>9</sup> Von Mehren, J. (2021). *Phase 1: Desktop Study and Preliminary Risk Assessment Report for 70 South Beach Road, Heacham PE31 7BB*. Your Environment, Chichester.

<sup>10</sup> Anthony-Johnson Consulting Engineer Ltd. (2022). *Untitled report relating to Barn, South Beach Road, Heacham*. Anthony-Johnson Consulting Engineer Ltd. Downham Market.

## 6. Results

### 6.1. Desk Study

#### 6.1.1. Designated Sites Information

The international designated sites considered within this HRA are as follows:

##### Special Areas of Conservation (SAC)

- North Norfolk Coast
- The Wash and North Norfolk Coast
- Roydon Common and Dersingham Bog

##### Special Protection Areas (SPA)

- North Norfolk Coast
- The Wash

##### Wetlands of International Importance (designated under the Ramsar Convention)

- North Norfolk Coast
- The Wash
- Dersingham Bog
- Roydon Common

Table 3: Habitats Sites Information

Site Name and Designation	Reason for designation	Conservation Objectives
North Norfolk Coast Special Area of Conservation	<p>Annex I habitats that are a primary reason for selection of this site:</p> <p>1150 Coastal Lagoons most notably Blakeney Spit Pools, six pools between shingle spit and saltmarsh. Fauna includes nationally rare lagoonal mysid shrimp <i>Paramysis nouveli</i>.</p> <p>1220 Perennial vegetation of stony banks.</p> <p>1420 Mediterranean and thermo-Atlantic halophilous shrubs (<i>Sarcocornetea</i>).</p> <p>2110 Shifting dunes along the shoreline with <i>Ammophila arenaria</i>.</p> <p>2130 Fixed coastal dunes with herbaceous vegetation.</p> <p>2190 Humid dune slacks.</p> <p>Annex II species present as a qualifying feature, but not a primary reason for site selection</p> <p>1355 Otter <i>Lutra lutra</i></p> <p>1395 Petalwort <i>Petallophylum ralfsii</i></p>	<p>Ensure the integrity of the site is maintained... by maintaining or restoring:</p> <p>The extent and distribution of qualifying natural habitats and habitats of qualifying species.</p> <p>The structure and function (including typical species) of qualifying natural habitats.</p> <p>The structure and function of habitats of qualifying species.</p> <p>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.</p> <p>The populations of qualifying species.</p> <p>The distribution of</p>

Site Name and Designation	Reason for designation	Conservation Objectives
The Wash and North Norfolk Coast Special Area of Conservation	<p>Annex I habitats (primary reason for selection):</p> <p>1110: Sandbanks which are slightly covered by seawater all the time.</p> <p>1140: Mudflats and sandflats not covered by seawater at low tide.</p> <p>1160: Large shallow inlets and bays.</p> <p>1170: Reefs</p> <p>1310: <i>Salicornia</i> and other annuals colonising mud and sand.</p> <p>1330: Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</p> <p>1420: Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea</i>).</p> <p>Annex I habitats (present as a qualifying feature):</p> <p>1150: Coastal lagoons</p> <p>Annex II species (primary reason for selection):</p> <p>1365: Harbour seal <i>Phoca vitulina</i></p> <p>Annex II species (present as a qualifying feature):</p> <p>1355: Otter <i>Lutra lutra</i></p>	<p>qualifying species within the site.</p> <p>Ensure the integrity of the site is maintained... by maintaining or restoring:</p> <p>The extent and distribution of qualifying natural habitats and habitats of qualifying species.</p> <p>The structure and function (including typical species) of qualifying natural habitats.</p> <p>The structure and function of habitats of qualifying species.</p> <p>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.</p> <p>The populations of qualifying species.</p> <p>The distribution of qualifying species within the site.</p>
Roydon Common and Dersingham Bog Special Area of Conservation	<p>Roydon Common and Dersingham Bog SAC qualifies under the Council Directive 92/143/EEC, known as the Habitats Directive, for the following Annex 1 habitats:</p> <p>4010: North Atlantic wet heaths with <i>Erica tetralix</i> - The site represents the largest and best example of M16 <i>Erica tetralix</i> - <i>Sphagnum compactum</i> wet heath in East Anglia. A complex series of plant communities is found within the site from wet acid heath, valley mire and calcareous fen. The mire is extremely diverse and supports many rare plants, birds and insects including the regionally scarce black darter <i>Sympetrum scoticum</i>. Birds protected at a European level occurring within this habitat include European nightjar <i>Caprimulgus europaeus</i>, hen harrier <i>Circus cyaneus</i> and merlin <i>Falco columbarius</i>.</p> <p>7150: Depressions on Peat Substrates of the Rynchosporion - The site holds the only examples of this habitat type in eastern England, within pools of valley mires, wet flushes and disturbed areas</p>	<p>Ensure the integrity of the site is maintained... by maintaining or restoring:</p> <p>The extent and distribution of qualifying natural habitats and habitats of qualifying species.</p> <p>The structure and function (including typical species) of qualifying natural habitats.</p> <p>The structure and function of habitats of qualifying species.</p> <p>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.</p> <p>The populations of qualifying species.</p> <p>The distribution of qualifying species within the site.</p>

Site Name and Designation	Reason for designation	Conservation Objectives
	<p>associated with tracks and pathways. It provides an important habitat for bog orchid <i>Hammarbya paludosa</i> [Roydon only].</p> <p>Annex I habitats (present as a qualifying feature) 4030: European dry heaths.</p>	
Dersingham Bog Ramsar Site	<p>The site qualifies under Ramsar criterion 2 and 6:</p> <p>2. The site includes extensive bog, wet heath, and transition communities over peat, fed by groundwater springs and seepage, and holds internationally important plant and invertebrate communities.</p> <p>6. The site supports important assemblages of birds.</p>	Ramsar sites have no defined conservation objectives
North Norfolk Coast Special Protection Area	<p>This site qualifies under <b>Article 4.1</b> of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <p><b>During the breeding season;</b>            Bittern <i>Botaurus stellaris</i>, 1 pair representing at least 5.0% of the breeding population in Great Britain (6 year mean 1992-97)            Marsh Harrier <i>Circus aeruginosus</i>, 10 pairs representing up to 6.4% of the breeding population in Great Britain (Count as at 1992-97)            Avocet <i>Recurvirostra avocetta</i> 126 pairs representing 30% of the breeding population in Great Britain (Count as at late 80's)            Little tern <i>Sternula albifrons</i> 330 pairs representing 13.8% of the breeding population in Great Britain (5 year mean 1992-96)            Common tern <i>Sterna hirundo</i> 460 pairs representing 3.7% of the breeding population in Great Britain (Count as at 1996)            Sandwich tern <i>Thalasseus sandvicensis</i> 3700 pairs representing 26.4% of the breeding population in Great Britain (5 year mean 1992-96)</p> <p><b>Over winter;</b>            Wigeon <i>Mareca penelope</i>, 14,039 individuals representing up to 1.1% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)            Pink-footed goose <i>Anser brachyrhynchus</i>,</p>	<p>Ensure the integrity of the site is maintained... by maintaining or restoring:</p> <p>The extent and distribution of the habitats of the qualifying species.</p> <p>The structure and function of the habitats of the qualifying features.</p> <p>The supporting processes on which the habitats of the qualifying features rely.</p> <p>The population of each of the qualifying features.</p> <p>The distribution of qualifying features within the site.</p>

Site Name and Designation	Reason for designation	Conservation Objectives
	<p>23,802 individuals representing up to 10.6% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)</p> <p>Dark-bellied brent goose <i>Branta bernicla bernicla</i>, 11,512 individuals representing up to 10.6% of the wintering population in Great Britain (5 year peak mean 1991/2-1995/6)</p> <p>Knot <i>Calidris canutus</i>, 10,801 individuals representing up to 3.1% of the wintering population in Great Britain (5 yr peak mean 1991/2-1995-6)</p> <p><b>Assemblage qualification: A wetland of international importance.</b></p> <p>The area qualifies under <b>Article 4.2</b> of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl</p> <p>Over winter, the area regularly supports 91,536 individual waterfowl ((5 yr peak mean 1991/2-1995-6)</p>	
North Norfolk Coast Ramsar Site	<p>The site qualifies under Ramsar criterion 2 and 6:</p> <p>2. The site supports a number of rare species and habitats within the biogeographical zone context, including the Habitats Directive Annex I and Annex II features listed above for the SAC designation.</p> <p>The site supports outstanding assemblages of rare plants and invertebrates including nine British Red Data Book plants and 136 British Red Data Book invertebrates.</p> <p>6. The site supports bird species occurring at internationally important levels, including species with peak counts in spring (breeding) and in winter (wintering).</p>	Ramsar sites have no defined conservation objectives
The Wash Special Protection Area	<p>This site qualifies under <b>Article 4.1</b> of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <p><b>During the breeding season;</b></p> <p>Little tern <i>Sternula albifrons</i> 30 pairs representing 2% of the breeding population in Great Britain (5 year mean 1992-96)</p> <p>Common tern <i>Sterna hirundo</i> 220 pairs representing 2% of the breeding population in Great Britain (Count as at 1996)</p> <p>Black-headed gull <i>Chroicocephalus ridibundus</i> 4,000 pairs representing 2% of the breeding population in Great Britain</p>	<p>Ensure the integrity of the site is maintained... by maintaining or restoring:</p> <p>The extent and distribution of the habitats of the qualifying species.</p> <p>The structure and function of the habitats of the qualifying features.</p> <p>The supporting processes on which the habitats of the qualifying features rely.</p> <p>The population of each of the qualifying features.</p> <p>The distribution of qualifying features within the site.</p>

Site Name and Designation	Reason for designation	Conservation Objectives
	<p><b>Over winter;</b> The Wash qualifies under Article 4(2) as an internationally important wetland by supporting in winter an average of 163,000 waders and also 51,000 wildfowl; and because it supports on average the following internationally important numbers of individual species: 17,000 dark-bellied brent geese <i>Branta bernicla bernicla</i> (12% of the European wintering population), 7,300 pink-footed geese <i>Anser brachyrhynchus</i> (7%), 16,000 shelducks <i>Tadorna tadorna</i> (12%), 1,700 pintails <i>Anas acuta</i> (2%), 24,000 oystercatchers <i>Haematopus ostralegus</i> (3%), 5,500 grey plovers <i>Pluvialis squatarola</i> (7%), 500 sanderlings <i>Calidris alba</i> (3%), 7,500 knots <i>Calidris canutus</i> (21%), 29,000 dunlins <i>Calidris alpina</i> (1%), 8,200 bar-tailed godwits <i>Limosa lapponica</i> (1%), 3,700 curlews <i>Numenius arquata</i> (1%), 4,331 redshanks <i>Tringa totanus</i> (5%) and 980 turnstones <i>Arenaria interpres</i> (2%).</p>	
The Wash Ramsar Site	<p>The site qualifies under Ramsar criterion 2 and 6:</p> <p>2. The site supports a number of rare species and habitats within the biogeographical zone context, including the Habitats Directive Annex I and Annex II features listed above for the SAC designation.</p> <p>The site supports outstanding assemblages of rare plants and invertebrates including nine British Red Data Book plants and 136 British Red Data Book invertebrates.</p> <p>6. The site supports bird species occurring at internationally important levels, including species with peak counts in spring (breeding) and in winter (wintering).</p>	Ramsar sites have no defined conservation objectives

The SSSI citations for the above listed sites do not mention any substantially different or additional protected features to those outlined above.

### 6.1.2 Pre-Existing Information on the Proposed Development Site

Site plans show that the building targeted for conversion has a footprint of approximately 232 square metres.

The 2012 Aurum Ecology report comprised a Biodiversity and European Protected Species Report on the wider Beach Farm site (which includes this relevant building). The report found that the relevant grain store building was “a large modern barn at the southern end of the site”. Regarding Habitats sites, the report concludes that the proposed development (which encompassed all farm buildings at Beach Farm, whereas the current

proposal relates only to a single building), “will not impact on any of the above [i.e. designated] sites.”

The 2021 report by Your Environment comprised a Phase 1: Desktop Study and Preliminary Risk Assessment Report for 70 South Beach Road, Heacham, PE31 7BB. It specifies that

*“a single corrugated metal and wood-built barn unit was identified on the site, with corrugated roofing. The building appears in generally quite good condition and new, except for a corrugated side panel which differs from the rest of the building - it is grey, stony in texture and does not appear to be in as good condition as the rest of the building. A number of discarded household furnishings and materials were found to be leaning against this material.”* The report contains no information on nature conservation sites; it addresses issues more related to ground contamination, geology and hydrology.

The 2022 engineering report on the relevant building provided by Anthony-Johnson Consulting Engineer Ltd. includes a summary of the setting and construction of the barn as follows:

*“An existing barn, set within the demise of a plot of land, with access track from South Beach Road serving both the adjacent property, holiday lets and the barn.*

*“Cladding [on all four sides of the barn] comprises a corrugated cement sheet, hung verticals. The main doors appear to be formed from a steel frame, inset with horizontal spanning timber boards... The main barn doors slide open.*

*Blockwork is clearly visible below the line of the cladding.”*

Photographs of the barn, taken from the Aurum Ecology report and Anthony-Johnson Consulting Engineer report are provided in Appendix 2.

### 6.1.3 Surface and Foul Water Discharges

In order to process foul water discharges from the proposed development site, the developer is planning to install a package treatment plant which meets British Standard BS12566, so would output clean, treated water. This water would be discharged to ground, under an Environment Agency (EA) permit which is currently being applied for. The discharge/drainage field complies with BS6297:2007+A1:2008, as confirmed by the applicant’s application form B6.6.

The specification of the foul water treatment system which the developer is proposing to install is the *BioRock® 5000*. The Treatment Performance Results certificate is provided in Appendix 3, below.

There are expected to be no changes to surface water runoff given that the proposals are for interior renovation of the existing building and no additional hard-standing would be installed around the building.

## 6.2. Constraints

There have been no significant constraints to the assessment. The site has not been visited by WFE, but given the extensive information obtained from the three existing reports on the site (including two recent reports from 2021 and 2022), this is not considered to be a constraint to this Shadow Appropriate Assessment.



## 7. Potential for Adverse Effects on Integrity of Norfolk Habitats Sites

### 7.1. Direct Land Take & Loss of Functionally Linked Land

There would be no direct land-take impacts on Habitats sites associated with the proposed works; the footprint is confined to the existing building which would be converted into holiday accommodation. Therefore, there is considered to be no potential for the proposed works to have adverse effects from direct land take.

Similarly, the site, which is currently an agricultural corrugated cement board on metal frame barn, is not suitable for regularly use (e.g. for foraging) by species or habitats listed as qualifying features of the designated sites. The proposed development site is therefore not considered to represent functionally linked land; accordingly there is no risk of an adverse effect on the integrity of Habitats sites as a result of loss of functionally linked land associated with this development proposal.

### 7.2. Disturbance During Construction Works

Conversion of the building into holiday accommodation will involve the presence of contractors on-site, vehicular deliveries and various sources of disturbance such as noise and possibly lighting. However, no adverse effects on the integrity of nearby Habitats sites are predicted during construction works, because of the baseline setting of the proposed development site. The site is located on the edge of the village of Heacham, bordering arable fields and on a plot which is already partly used as holiday accommodation. Any wildlife using the nearby designated sites will be habituated to the existing sources of disturbance in this general location; the addition of temporary and proportionately minor increases in noise, vehicular activity and other types of disturbance, would not be expected to have a discernible impact given baseline levels of human activity around Heacham.

### 7.3. Disturbance During Operational Use

Once the building is converted and in-use as holiday accommodation, tourists/occupants staying at the site could create new sources of disturbance such as noise, increased vehicular activity and littering, for example. However, as with construction impacts, the context of the site will mean that the addition of these impacts to the baseline will be negligible when considered as a proportional increase in existing human disturbance. For example, the parish of Heacham had a population of 4,605 people<sup>11</sup> in 2021; the addition of holiday accommodation capable of being used by a maximum of 16 people would equate to a 0.35% proportional increase in the parish population. However, it is also relevant to note that holiday visitors using existing visitor facilities (such as caravan parks, hotels and campsites) likely increase the baseline population of Heacham significantly during key holiday seasons, so at the times of year the proposed holiday units would most likely be occupied to full capacity this proportional increase would be even lower. Overall no adverse effects on the integrity of Habitats sites are predicted due to disturbance and damage of such sites during operational use of the proposed holiday accommodation.

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<sup>11</sup>

[https://www.citypopulation.de/en/uk/eastofengland/admin/kings\\_lynn\\_and\\_west\\_norf/E04006319\\_heacham/](https://www.citypopulation.de/en/uk/eastofengland/admin/kings_lynn_and_west_norf/E04006319_heacham/)

#### 7.4. Recreational Impacts

Visitors/occupants of the proposed holiday units may visit nearby Habitats sites for recreation such as dog-walking, picnicking, sports, beach trips, bird watching and various other activities. The increase in visitor pressures to these designated sites could lead to adverse effects on integrity; the Site Improvement Plan<sup>12</sup> (SIP) for Habitats Sites such as The Wash and North Norfolk Coast SAC confirm that “*recreational activities may have adverse impacts on these sites*”. This is particularly the case in-combination with other development in the wider region and county which would also lead to increased human population and associated visitor pressures. However, the in-combination impact is considered separately, below.

The impact from the proposed development at Beach Farm is not expected to have an adverse effect on the integrity of any Habitats sites by itself, because of the baseline levels of human recreational disturbance at these sites, and the relatively negligible proportional increase in visitor pressures which the proposed development would (by itself) lead to.

#### 7.5. Surface and Foul Water Discharge Impacts (Nutrient Neutrality)

The on-site installation of the proposed package treatment plant will be subject of a separate application. The system would purify foul water in-situ, and would lead to trace inputs of nutrients being discharged to ground. An application for a permit to discharge to ground is currently being processed by the Environment Agency. Assuming the EA issues the permit to allow discharges to ground, there would be negligible foul water discharges outflowing from the site.

The Habitats sites within Norfolk for which development proposals must demonstrate maintenance of ‘nutrient neutrality’ are the River Wensum SAC and The Broads SAC. However, as the proposal at Beach Farm is well separated from the catchments of these designated sites, there is considered to be no risk of an adverse effect on the integrity of the relevant Habitats site such as The Wash and North Norfolk Coast SAC. Furthermore, the proposed development involves conversion of an existing building, so no discernible changes to surface water flows are expected.

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<sup>12</sup> Natural England (2014). *Improvement Programme for England’s Natura 2000 Sites (IPENS), Planning for the Future. Site Improvement Plan: The Wash and North Norfolk Coast*. Natural England.

## 8. Cumulative Impact Assessment

The only type of impact which is considered to warrant assessment for cumulative effects (in combination with impacts from other plans and projects) relates to recreation. As highlighted above, the proposed development would provide holiday accommodation for up to 16 people at any one time. These tourists/occupants could visit Habitats site for recreation. The impact of these site visits would not, by themselves, be expected to lead to adverse effects on integrity, because of their individually negligible increase in pressure when considered as a proportion of existing visitor pressures (i.e. many thousands of tourists visit sites such as the North Norfolk Coast designated sites, so the addition of up to 16 additional tourists at any one time would not by itself be expected to have an adverse effect). However, when combined with the impacts of other residential and holiday development in the wider region and county, there is a risk that, without mitigation, the combined impact of increased recreational pressure could lead to adverse effects on integrity. Therefore, mitigation in the form of the GIRAMS payment will be required to offset this impact. Further detail is provided below.

## 9. Mitigation

The potential for adverse effects on integrity as a result of in-combination recreational impacts on Habitats sites cannot be discounted. Therefore mitigation in the form of a payment towards the Norfolk GIRAMS is expected to be required. The BCKLWN will advise on the precise financial contribution, but this is expected to be calculated as follows:

$$16 \text{ (number of bed-spaces)} \div 6 \text{ (ratio for tourist accommodation)} = 2.667 \times \text{£}185.93$$

= **£495.81**

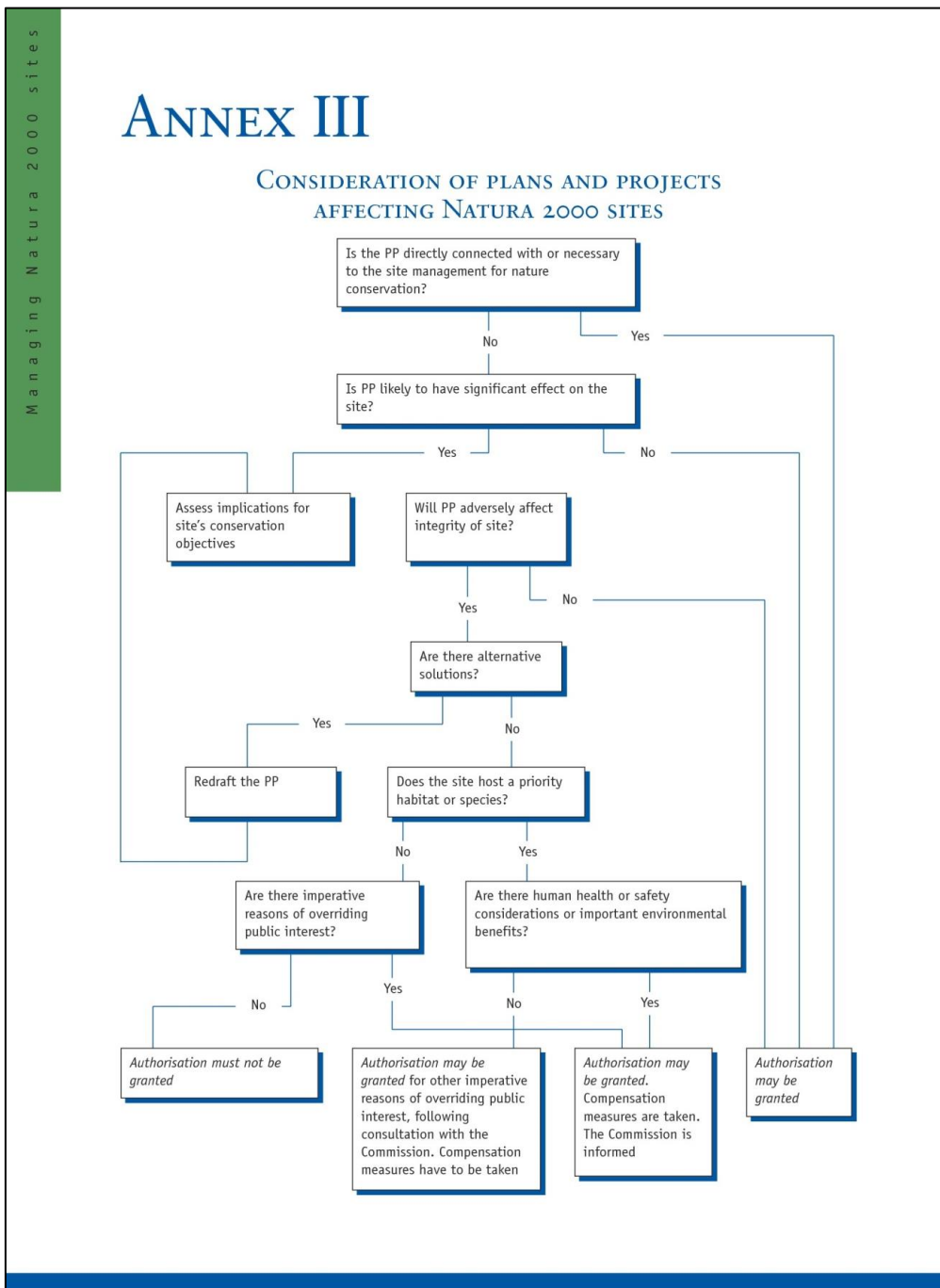
Assuming this payment is provided to the BCKLWN, it is expected to adequately fund suitable mitigation to offset the contribution of this proposed development to the cumulative recreational adverse effect on the integrity of Norfolk Habitats sites.

## 10. Conclusion

The proposed conversion of the former grain store building at Beach Farm in Heacham has been subject to a shadow appropriate assessment, examining its potential to have adverse effects on the integrity of nearby Habitats sites. This report has reached a conclusion of no adverse effects on the integrity of Habitats sites, either alone or in combination with other plans or projects, assuming the advised mitigation measure (payment of the Norfolk GIRAMS contribution, which is to be determined by the BCKLWN) is adopted. This conclusion is also made on the assumption that the EA approves the permit to discharge waste water to ground via the on-site package treatment plant (this application is currently pending approval).

## Annex 1: Appropriate Assessment Process

The following diagram is taken from “Managing Nature 2000 Sites: The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC” (2000)<sup>13</sup>.



<sup>13</sup> European Commission (2000). *Managing Nature 2000 Sites: The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC*. European Commission, Belgium.

## Annex 2: Photographs of Barn (from Aurum Ecology Ltd. & Anthony-Johnson Consulting Engineer Ltd. reports)

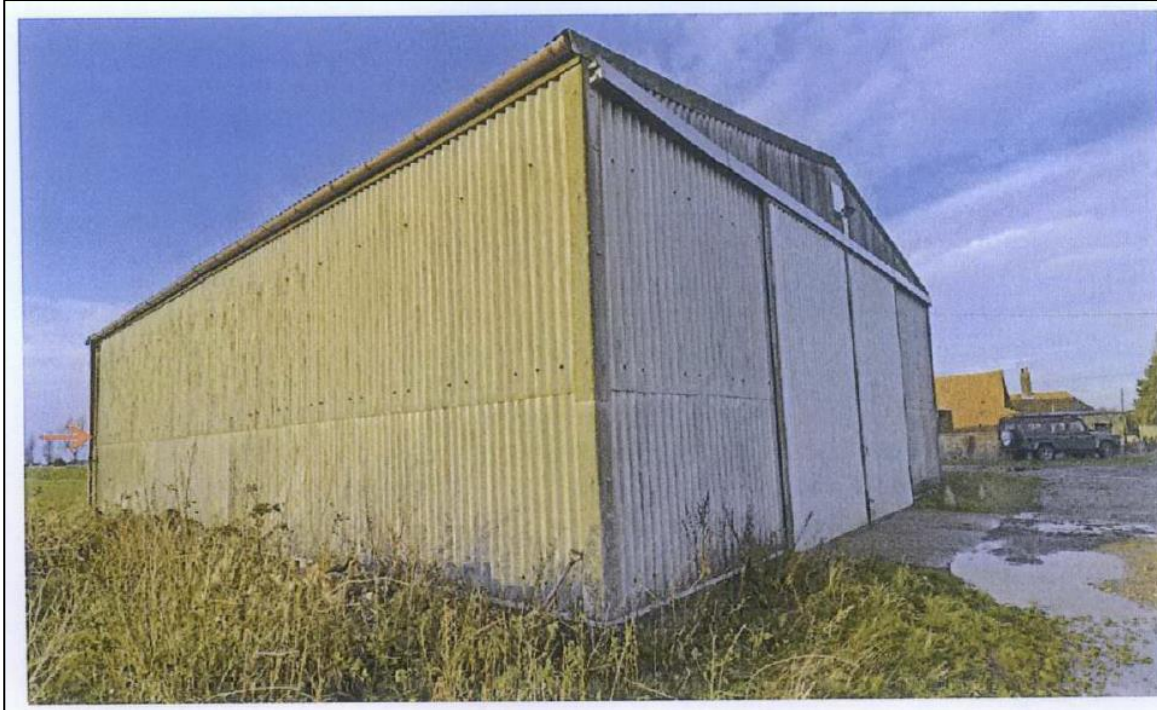


Photo 1 (taken from Aurum Ecology 2012 report): The grain store building targeted for conversion to holiday lets, as viewed showing southern and eastern aspects.

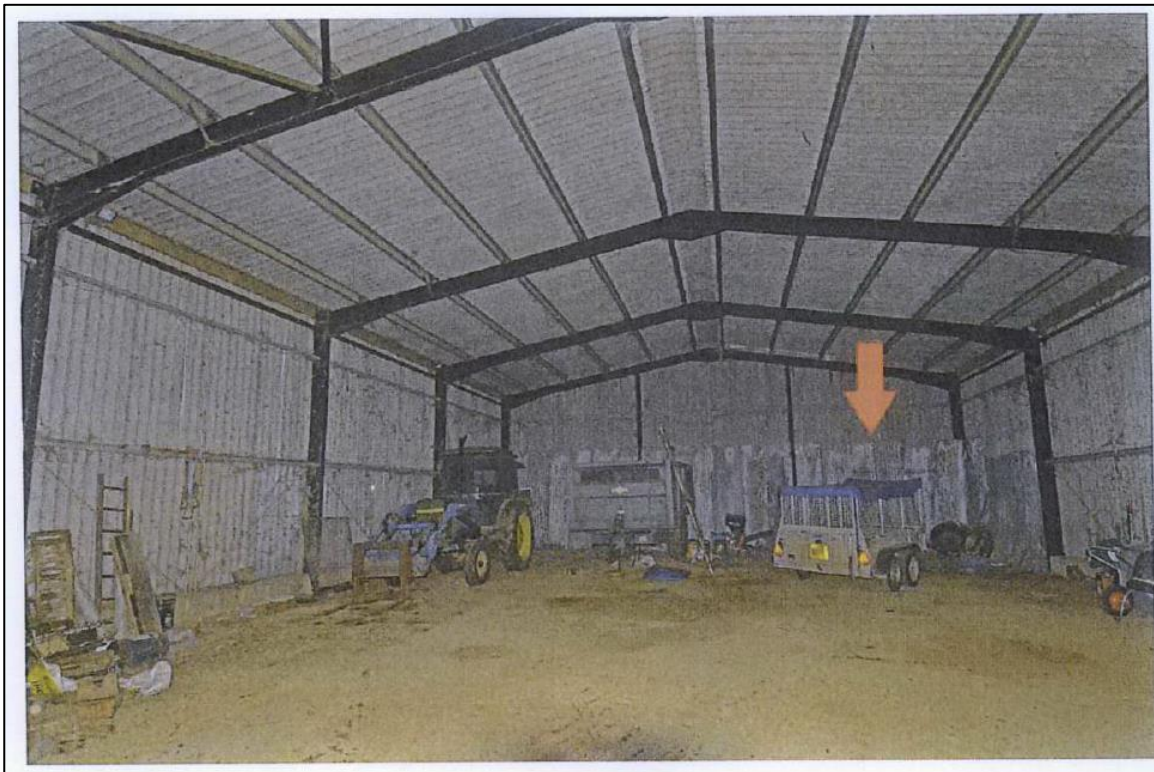


Photo 2 (taken from Aurum Ecology 2012 report): Interior of the grain store building (the superimposed orange arrow shows the location of a barn owl box).



Photo 3 (taken from Anthony-Johnson Consulting Engineer Ltd. report): Part of the eastern aspect of the barn, showing the existing barn doors.

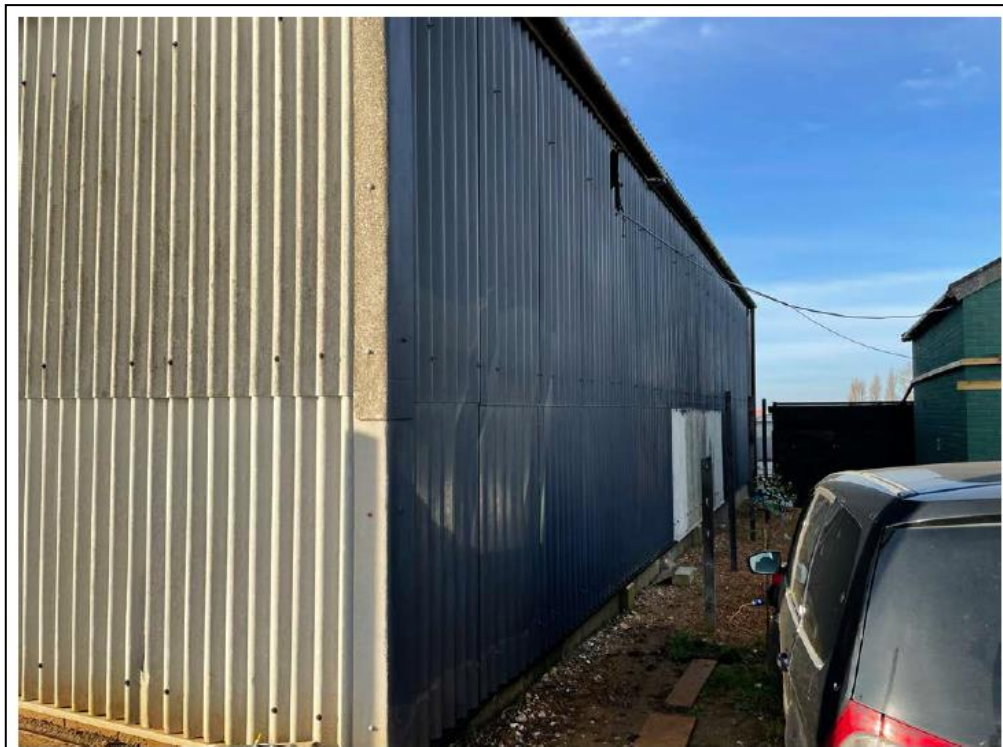


Photo 4 (taken from Anthony-Johnson Consulting Engineer Ltd. report): Northern aspect of the barn.





Photo 5 (taken from Anthony-Johnson Consulting Engineer Ltd. report): Western aspect of the barn.



Photo 6 (taken from Anthony-Johnson Consulting Engineer Ltd. report): Interior of the barn.

# Annex 3: Biorock® 5000 Treatment Performance Results Certificate



**Prüfinstitut für Abwassertechnik GmbH**

## TREATMENT PERFORMANCE RESULTS

**BIOROCK Sewage Treatment Ltd**  
5300 Lakeside, Cheadle Royal Bus. Pk. Cheadle SK8 3GP

**EN 12566-3**  
Results corresponding to EN 12566-3 and S.R. 66  
PIA-SR66-1703-1026

**BIOROCK**  
Aerobic biological gravity filter

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Nominal organic daily load	0.27 kg/d	
Nominal hydraulic daily load	0.75 m <sup>3</sup> /d	
Material	Polyethylene	
Watertightness	Pass	
Crushing resistance (Pit test)	Pass (also wet conditions)	
Durability	Pass	
Treatment efficiency (nominal sequences)		
	Efficiency	Effluent
	COD	96.3 %    26 mg/l
	BOD <sub>5</sub>	98.7 %    4 mg/l
	NH <sub>4</sub> -N*	90.5 %    3 mg/l
	SS	99.3 %    3 mg/l
Number of desludging	Not more than once	
Electrical consumption	0 kWh/d	

\*determined for temperatures ≥ 12°C in the bioreactor

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Performance tested by:

**PIA – Prüfinstitut für Abwassertechnik GmbH**  
**CSTB – Centre Scientifique et technique du Batiment**  
**CERIB – Centre d'Etudes et de Recherche de l'INdustrie du Béton**

This document replaces neither the declaration of performance nor the CE marking.



Notife Body  
No.: 1739



Certified according to  
ISO 9001:2008





Deutsche  
Akkreditierungsstelle  
D-PL-17712-01-00



Elmar Lancé                      March 2017